FINAL ENVIRONMENTAL ASSESSMENT

for

PROPOSED AIRPORT IMPROVEMENTS

at

FLAGSTAFF PULLIAM AIRPORT

Flagstaff, AZ

FLAGSTAFF
PULLIAM AIRPORT

Prepared for the

CITY OF FLAGSTAFF

JUNE 2006

VOLUME 2 of 2

FINAL
ENVIRONMENTAL ASSESSMENT

For Proposed Runway 3-21 1,801-Foot Extension And Associated Improvements

VOLUME 2 OF 2

FLAGSTAFF PULLIAM AIRPORT
Flagstaff, Arizona

Prepared for the
CITY OF FLAGSTAFF

By
COFFMAN ASSOCIATES, INC.

June 2006

This Environmental Assessment becomes a Federal Document when evaluated and signed by the responsible FAA Official.

_____ _____

Responsible FAA Official Date

FLAGSTAFF
PULLIAM AIRPORT

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Flagstaff, Arizona

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CULTURAL RESOURCE SURVEYS

Cultural Resources Survey
for a Proposed New Taxiway and Proposed Expansion of the South ERSA at Flagstaff Pulliam Airport, Flagstaff, Arizona

M. Zyniecki

N O R T H L A N D
Research, Inc.

Prepared for
AZtec Research & Consulting, Inc.
Flagstaff, Arizona

3 August 2000

Abstract

Lead Agency: USDA, Coconino National Forest

Project Title: Cultural Resources Survey for a Proposed New Taxiway and Proposed Expansion of the South ERSA at Flagstaff Pulliam Airport, Flagstaff, Arizona

Description: Pedestrian survey of proposed new taxiway and expansion of the south ERSA (Emergency Runway Safety Area).

Project Location: Portions of NW¼, SW¼ and SW¼, NW¼, Sec. 4, T21N, R7E, portions of E½, SE¼, Sec. 5, T21N, R7E, and portions of SE¼, NW¼ and NE¼, sW¼, Sec. 8, T21N, R7E.

Number of Surveyed Acres: 24.1 acres (3.0 acres of Coconino National Forest and 21.1 acres of City of Flagstaff)

Number of Sites: 0

List of Eligible Sites: 0

List of Ineligible Sites: 0

Comments: Three isolated occurrences were recorded, none of which are recommended as eligible for inclusion to the National Register of Historic Places. Northland Research recommends that no additional archaeological investigations are warranted.

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INTRODUCTION

The City of Flagstaff proposes to construct a new taxiway parallel to the existing taxiway and runway and to expand the existing Emergency Runway Safety Area (ERSA) at the south end of the runway at Flagstaff Pulliam Airport. This project is part of the Master Plan Development Project for the airport. Northland Research, Inc. (Northland), was contracted by AZtec Research & Consulting, to conduct the cultural resources survey.

The taxiway and part of the ERSA are on City of Flagstaff property, while the remaining portion of the ERSA is on land managed by the Peaks Ranger District of the Coconino National Forest. The survey was conducted under Northland's Special Use Permit for Non-collection Surveys on the Coconino National Forest and its Arizona Antiquities Act Permit 2000-8bl to conduct surveys on lands of Arizona.

The project area is in portions of:

NW¼, SW¼ and SW¼, NW¼, Sec. 4, T21N, R7E;
E½, SE¼, Sec. 5, T21N, R7E; and
SE¼, NW¼ and NE¼, SW¼, Sec. 8, T21N, R7E.

The project area is found on the USGS Flagstaff West Quadrangle (Figure 1). The portion of the project area within the Coconino National Forest is in the NW¼, NE¼, SW¼, Sec. 8, T21N, R7E.

The proposed taxiway project includes moving a windsock and Federal Aviation Administration traffic control facility, modification of the Arizona Department of Public Safety taxiway, modification of some existing taxiway additions, and new taxiway construction. The proposed taxiway project area measures 3650 ft. × 100 ft. (1113 m × 30 m) for a total of 8.4 acres. The proposed expansion of the ERSA at the south end of the runway entails increasing the size of the existing ERSA. The existing ERSA is 800 ft. × 400 ft., and the new expansion will have a length of 1050 ft. (320 m) with a width ranging from 550 ft. to 750 ft. (168-229 m). The ERSA consists of an earthen platform extending beyond the south end of the runway to be used by aircraft in emergency situations. The expanded ERSA will increase the size of the earthen platform. The expanded ERSA project area covers 15.7 acres in total; 12.7 acres of the total are on City of Flagstaff property, and 3.0 acres are on lands managed by the Peaks Ranger District of the Coconino National Forest. The project area is above the transition line between ponderosa pine and pinyon-juniper.

Total area surveyed for the project is 24.1 acres with 3.0 acres of lands managed by the Peaks Ranger District of the Coconino National Forest and 21.1 acres of City of Flagstaff property. The cultural resources survey was conducted by M. "Slim" Zyniecki, Project Archaeologist, on 1 August 2000. No archaeological sites and three isolated occurrences (IOs) were discovered during the survey. None of the IOs are recommended as eligible for inclusion in the National Register of Historic Places (NRHP).

RECORDS CHECK

Records checks were conducted at the Arizona State Museum and at the Archaeology Section of the Supervisor's Office for the Coconino National Forest. Forest records revealed seven projects in the vicinity of the airport (Bremer and Hunt 1981; Dosh 1992; Etchieson 1975; Marmaduke 1986; Marmaduke and Dechambre 1979; and Pilles 1988), which are shown on Figure 1. (It should be noted that the segment of Figure 1 with overlapping portions of Bremer and Hunt [1981] and Etchieson [1975] shows the boundary

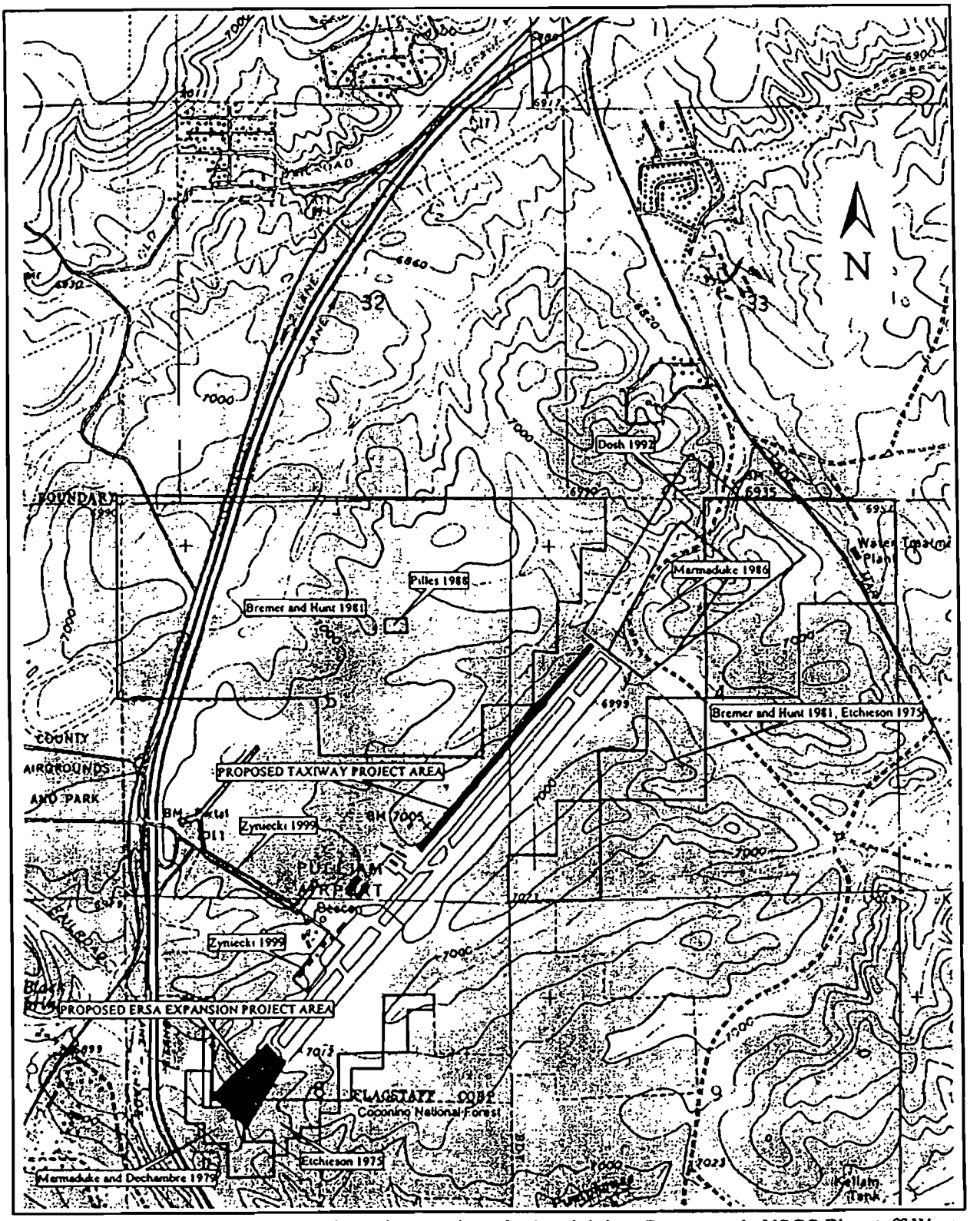

Figure 1. Proposed project area and previous projects in the vicinity. Base map is USGS Flagstaff West Quadrangle. Scale is 1:24,000. Area is below the transition line between the ponderosa pine and pinyon-juniper zones.

of Bremer and Hunt [1981] due to the complex nature of the overlapping project boundaries and the larger total area for Bremer and Hunt [1981]). Arizona State Museum records revealed one additional survey (Zyniecki 1999), also part of the Master Plan Development Project. None of these projects recorded archaeological sites in the vicinity of the airport.

In addition, General Land Office maps and other historic maps for the area were inspected at the Coconino National Forest. There were no indications of historic structures within the project area.

METHODS AND RESULTS

The center line of the proposed new taxiway was staked for a length of about 3650 ft. (1113 m). One transect, 50 ft. (15.2 m) wide, was surveyed on each side of the center line for a total width of 100 ft. (30.4 m). During the survey, surface morphology and windrows of limestone boulders and dirt indicated that the entire area of the proposed taxiway was bladed in the recent past (less than 50 years ago). Also, there are areas where volcanic cinders have been spread on the surface. Given these circumstances, it cannot be ruled out that there is also fill from off site within the proposed project area that was used to level the area of the runway and existing taxiway. No sites and three IOs were recorded (Figure 2). The IOs are described in Table 1. Since there may be fill from outside the project area, the IOs might not be in situ, being imported to the project area with the fill.

A large scale (roughly 1 in.=100 ft.) aerial photograph of the proposed expanded ERSA was provided by AZtec Research & Consulting. This area was surveyed with parallel transects spaced 66ft. (20 m) apart. As noted above, the existing earthen mound of the ERSA is within the proposed expansion. This mound ranges from approximately 10 ft. to 30 ft. (3-9 m) in height and is less than 50 years old. There was little surface modification outside the mound, and ground visibility was 10-80 percent, averaging about 30 percent due primarily to pine duff. No sites or IOs were observed in this area.

Table 1. Isolated Occurrences (IOs) Recorded During the Survey.

IO	UTM (Zone 12)	Description	Area (in meters)
1	438,871m E, 3,888,823m N	14 crushed cans, includes sanitary and evaporated milk cans	8 × 6
2	438,861m E, 3,888,809m N	1 Tusayan White Ware bowl rim sherd	—
3	438,783m E, 3,888,718m N	1 core and 2 partially cortical flakes of obsidian	3 × 1

RECOMMENDATIONS

Northland recommends that the three IOs recorded do not meet the eligibility criteria for inclusion in the NRHP. Therefore, Northland recommends that no additional archaeological investigations are warranted.

Exhibit withheld as it contains precise locations of survey findings. A copy of the report has been submitted to the SHPO and the FAA.

If cultural resources are encountered during ground disturbing activities for this project, all disturbance should be halted immediately in the vicinity and the Coconino National Forest contacted. The Coconino National Forest, in consultation with the Arizona State Historic Preservation Office and possibly other appropriate agencies or parties, will determine what measures are necessary in that situation.

This report is submitted in compliance with the provisions of the National Historic Preservation Act of 1966, as amended.

REFERENCES

Bremer, J. M. and J. Hunt
1981 *An Archaeological Survey of the Flagstaff City Limits Baseland, Coconino National Forest, Arizona.* Ms. on file, Coconino National Forest Supervisor's Office, Flagstaff, Arizona.

Dosh, Steven G.
1992 *A Cultural Resources Survey of an Approach Lighting System at Pulliam Airport, City of Flagstaff and Coconino National Forest, Arizona.* Ms. on file, Coconino National Forest Supervisor's Office, Flagstaff, Arizona.

Etchieson, G. M.
1975 *Final Report for Flagstaff - Pulliam Airport EIS.* Ms. on file, Coconino National Forest Supervisor's Office, Flagstaff, Arizona.

Marmaduke, W. S.
1986 *An Archaeological Survey of the Northern Runway Extension, Pulliam Field, Flagstaff, AZ.* Ms. on file, Northland Research, Inc., Flagstaff, Arizona.

Marmaduke, W. S. and D. J. Dechambre
1979 *23 Acres for an Extension of the South Runway Approach, Pulliam Airport, City of Flagstaff, Arizona, Coconino National Forest, Mormon Lake District.* Ms. on file, Coconino National Forest Supervisor's Office, Flagstaff, Arizona.

Pilles, Jr., P. J.
1988 *An Archaeological Clearance for the FAA Doppler Radar Station Coconino National Forest, Arizona.* Ms. on file, Coconino National Forest Supervisor's Office, Flagstaff, Arizona.

Zyniecki, M.
1999 *Cultural Resources Survey for a Portion of the Master Plan Development Project at the Flagstaff Pulliam Airport, Flagstaff, Arizona.* Ms. on file, Northland Research, Inc., Flagstaff, Arizona.

FLAGSTAFF PULLIAM AIRPORT
MASTER PLAN IMPROVEMENT PROJECTS

Results of a Cultural Resources Literature Review
for the Proposed North Fill Area at Flagstaff Pulliam Airport, Flagstaff, Arizona

M. Zyniecki

N O R T H L A N D
Research, Inc.

Prepared for
AZtec Research & Consulting, Inc.
Flagstaff, Arizona

29 August 2000

Abstract

Lead Agency: Federal Aviation Administration

Project Title: Cultural Resources Literature Review for the Proposed North Fill Area at Flagstaff Pulliam Airport, Flagstaff, Arizona.

Description: Flagstaff Pulliam Airport proposes to construct an earthen mound on City of Flagstaff property using extra fill from a recently completed construction project at the airport. The proposed project area is approximately 3.5 acres in area.

Project Location: Portions of the NE¼, SW¼, NW¼; and portions of the NW¼, SE¼, NW¼, NW¼; Sec. 4, T21N, R7E.

Number of Surveyed Acres: 0 acres

Number of Sites: 0

List of Eligible Sites: 0

List of Ineligible Sites: 0

Comments: A literature review of earlier archaeological projects revealed that the entire proposed project area has been surveyed. No archaeological sites or isolated occurrences were recorded within the proposed project area. Northland Research recommends that no additional archaeological investigations are necessary.

Flagstaff Pulliam Airport proposes to construct an earthen mound on City of Flagstaff property using extra fill from a recently completed construction project at the airport. The project area, within which the mound will be constructed, measures approximately 500 × 300 ft. (152 × 91 m), or about 3.5 acres. It is located in portions of the NE¼, SW¼, NW¼, and portions of the NW¼, SE¼, NW¼, Section 4, Township 21 North, Range 7 East and can be found on the USGS Flagstaff West 7.5 minute quadrangle (Figure 1). Access to the project area will be along existing roads. The lead agency for this project is the Federal Aviation Administration.

A review of cultural resource literature revealed that the proposed project area is wholly within the limits of two earlier surveys for other projects at the airport. All but a small triangle in the northeast corner of the proposed project area, about 96 percent of total area, falls within the area surveyed for an approach lighting system at the airport (Dosh 1992). No cultural resources were observed during that survey. The remaining four percent of the current project area, a right triangle measuring about 50 ft. (15 m) at the base with a height of about 250 ft. (76 m), was surveyed for a proposed extension of the runway (Marmaduke 1986). Again, no cultural resources were found. Both earlier surveys used a maximum spacing of 20 m (66 ft.) between transects (Dosh 1992; Marmaduke 1986).

Based on the results of the two earlier surveys (Dosh 1992; Marmaduke 1986), Northland Research recommends that no further archaeological investigations are necessary.

REFERENCES

Dosh, Steven G.

1992 *A Cultural Resources Survey of an Approach Lighting System at Pulliam Airport, City of Flagstaff and Coconino National Forest, Arizona.* Ms. on file, Coconino National Forest Supervisor's Office, Flagstaff, Arizona.

Marmaduke, W. S.

1986 An Archaeological Survey of the Northern Runway Extension, Pulliam Field, Flagstaff, AZ. Ms. on file, Northland Research, Inc., Flagstaff, Arizona.

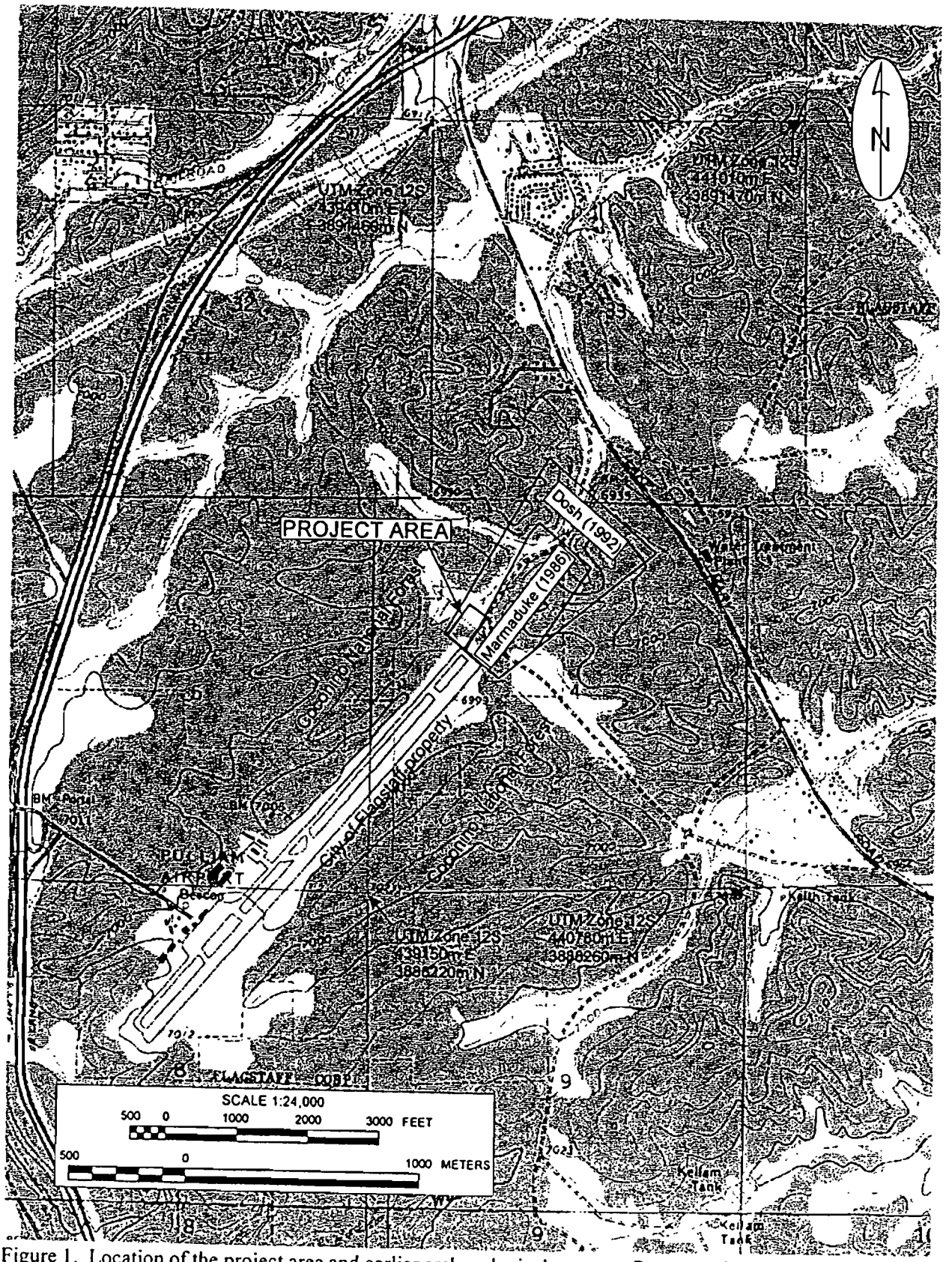

Figure 1. Location of the project area and earlier archaeological surveys. Base map is USGS Flagstaff West 7.5 minute quadrangle.

Cultural Resources Studies and Survey

Pulliam Air Field Extension, City of Flagstaff, Coconino County, Arizona

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Cindy K. Dongoske

NORTHLAND
RESEARCH, INC.

Prepared for:

AZtec Research& Consulting
Flagstaff, Arizona

Conducted under:

U.S. Forest Service Special-Use Permit

January 16, 2004

Abstract

Lead Agency: Federal Aviation Administration

Project Title: Cultural Resources Studies and Survey for the Pulliam Air Field Extension, City of Flagstaff, Coconino County, Arizona

Description: Class I project and site records search, and Class III on-ground intensive, pedestrian survey for the proposed Pulliam Air Field Extension Project.

Location: The Class I Project and site records search was conducted at the Coconino National Forest Supervisor's Office and at the Museum of Northern Arizona in Flagstaff, at the Arizona State Museum in Tucson, and at the Arizona State Parks Board, State Historic Preservation Office in Phoenix. Cultural resource projects conducted within one mile of Pulliam Air Field were recorded for this study.

The Class III pedestrian surveys were completed within the proposed Air Field Extension areas of effect. These include three areas: 1) approximately 88 acres beyond the northeast end of the existing runway; 2) approximately 11 acres beyond the southwest end, and 3) a 180-acre parcel off the southeast side of the runway, for a combined total of 279 acres. Each of these three project areas can be located within Township 20 North, Range 7 East, G&SRB&M; USGS Flagstaff West, Arizona, 1962 (Photorevised 1983), 7.5 minute quadrangle.

Area 1: Within the SE 1/4 of the SW 1/4 of Section 33 and extending into the SW 1/4 of the SE 1/4 of Section 33, and within the N 1/2 of Section 4.

Area 2: Within the SE 1/4 of the SW 1/4 of the NW 1/4 of Section 8 and extending into the SW and SE 1/4s of the NW 1/4 of Section 8; and within the E 1/2 of the NW 1/4 of the SW 1/4 of Section 8 and extending into the W 1/2 of the NE 1/4 of the SW 1/4 of Section 8.

Area 3: Within the NE 1/4 of Section 8 extending into the NW 1/4 of Section 9.

Surveyed Acres: 279

Number of Sites: None

List of Eligible Sites: None

List of Ineligible Sites: None

Comments: Because no eligible cultural resources occur within the areas proposed for the Pulliam Air Field Extension, cultural resource clearance is recommended.

Introduction

At the request of AZtec Research & Consulting, Northland Research, Inc. (Northland), conducted a Class I projects and site records search as part of the cultural resources studies for the City of Flagstaff, Pulliam Air Field Extension Project. In addition, a Class III intensive survey was conducted across a combined 279 acres of land in three separate areas adjacent to Pulliam Air Field.

The Class III pedestrian surveys were completed within the proposed Air Field Extension areas of effect. These included three areas: 1) approximately 88 acres beyond the northeast end of the existing runway; 2) approximately 11 acres beyond the southwest end of the existing runway, and 3) a 180-acre parcel off the southeast side of the runway, for a combined total of 279 acres. Each of these three project areas can be located within portions of Sections 4, 8, 9, and 33, Township 20 North, Range 7 East, G&SRB&M; USGS Flagstaff West, Arizona, 1962 (Photorevised 1983), 7.5 minute quadrangle (Figures 1 and 3).

The cultural resources surveys were conducted by Northland archaeologists Steven G. Dosh, Kurt Dongoske and Cindy Dongoske, between July and October 2003.

Class I Project and Site Records Searches

Project and site records searches were conducted at the Coconino National Forest Supervisor's Office and at the Museum of Northern Arizona in Flagstaff, at the Arizona State Museum in Tucson, and at the Arizona State Parks Board, State Historic Preservation Office in Phoenix. Cultural resource projects conducted within one and three mile peripheries of Pulliam Air Field were recorded for this study with emphasis on the one mile peripheral area (Figures 1 and 2). Few survey projects have been conducted beyond the one mile periphery into the larger three mile area; the land within the three mile area is primarily undeveloped National Forest and State Land with intermixed blocks of privately owned land. Cultural resources identified in this area include long sections of historic railroads, roads and highways, remnant historic structures with trash dumps associated with railroad construction, and a few small prehistoric sites. Within the one mile periphery, 60 separate cultural resource surveys have been conducted, 46 of which have complete report references. All project report titles are included at the end of this report. Table 1 is an abridgement of the surveys and project reports.

Within the three mile periphery of the Pulliam Air Field, a total of 84 different historic properties have been previously identified. These historic properties include historic timber railroads, other historic sites, and prehistoric flaked stone scatters and rock shelters. For the purposes of this report, the discussion of previous cultural resource surveys and findings will be confined to those projects conducted within the 1 mile radius of the Pulliam Air Field.

Previous Research

A records search conducted at the CNF Supervisor's Office in Flagstaff in December 2003, indicated that most of the land surrounding Pulliam Air Field within a 1 mile periphery has been surveyed and inventoried for cultural resources. Archival maps, depicting inventoried project areas and site locations, show that 60 surveys have been conducted within this area that resulted in the documenting of 25 cultural resources. This previous survey work was conducted by a variety of agencies for planned developments and for the maintenance and improvement of existing properties. Previously surveyed areas range in size from large blocks of land to narrow linear corridors. Identified cultural resources consist of both prehistoric and historic properties. The prehistoric properties are comprised of eight tool manufacture and resource procurement sites, and/or small artifact scatters; whereas, the historic properties

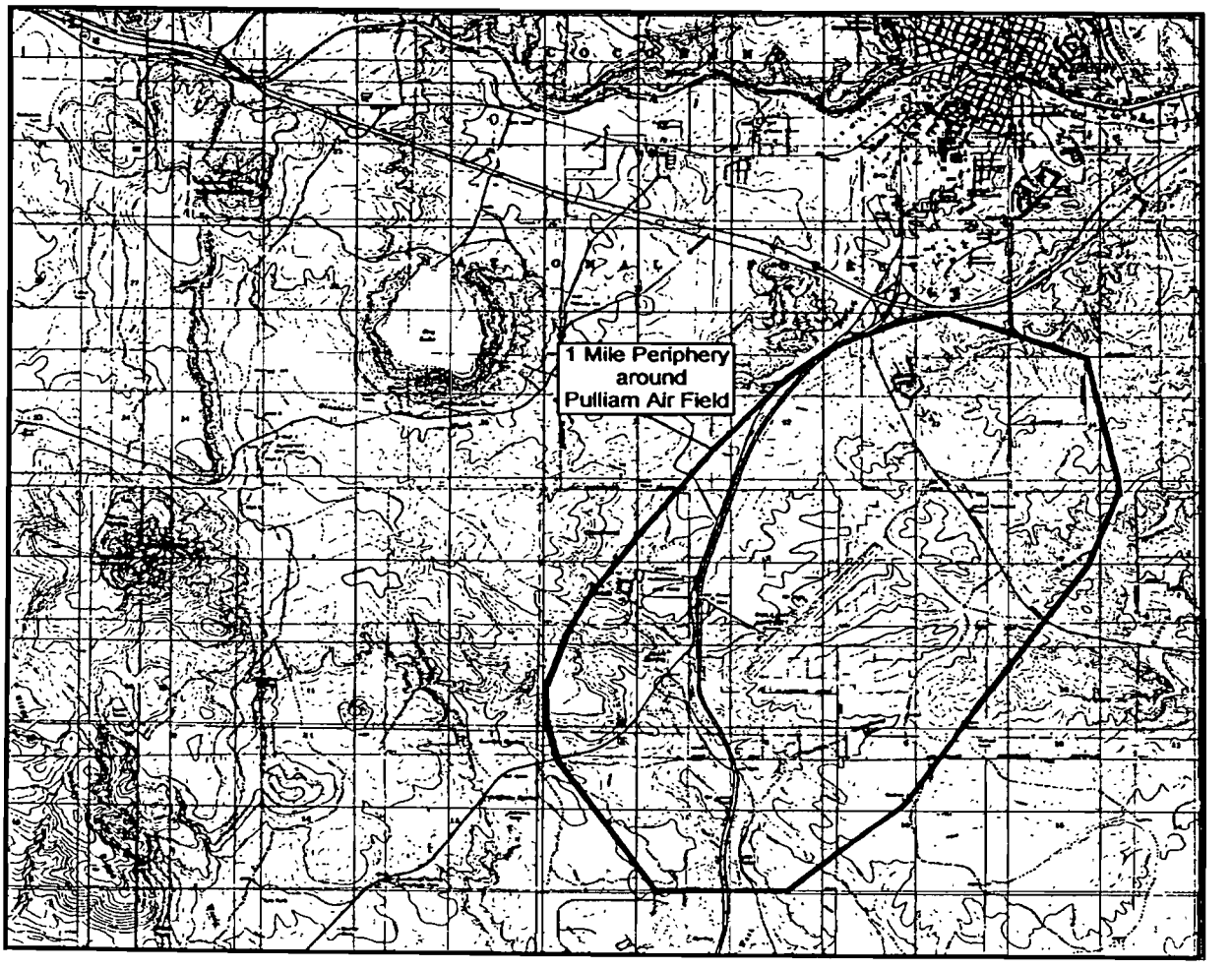

Figure 1. One mile periphery around Pulliam Air Field (indicated in red). Combined USGS 1962, Flagstaff West, Flagstaff East, Mountainaire (Photorevised 1983), and Lower Lake Mary (Photorevised 1974, Photoinspected 1980), Arizona, 7.5' quadrangles.

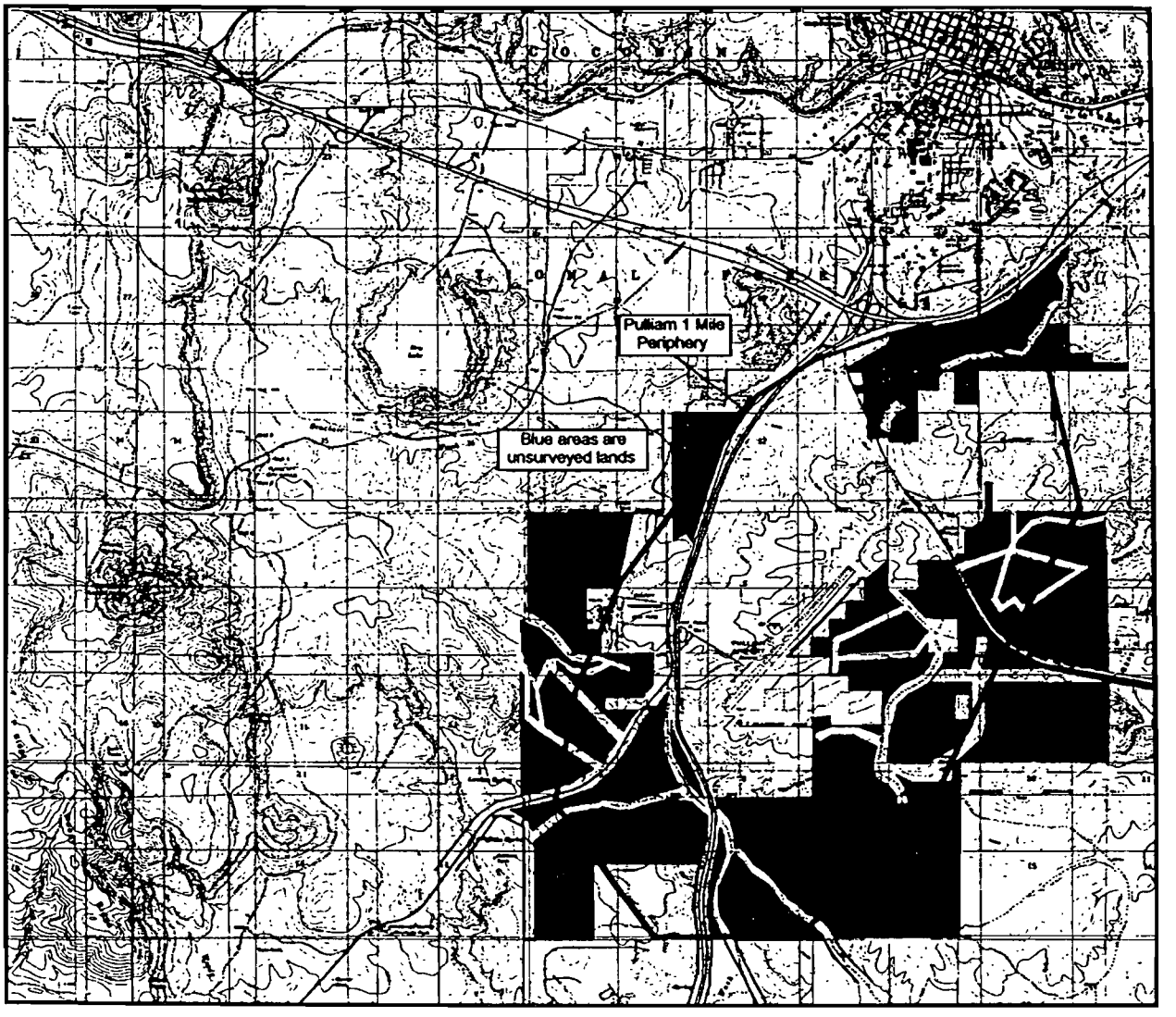

Figure 2. Surveyed and Non-Surveyed land within the 1 Mile periphery around Pulliam Air Field. Combined USGS 1962, Flagstaff West, Flagstaff East, Mountainaire (Photorevised 1983), and Lower Lake Mary (Photorevised 1974, Photoinspected 1980), Arizona, 7.5' quadrangles.

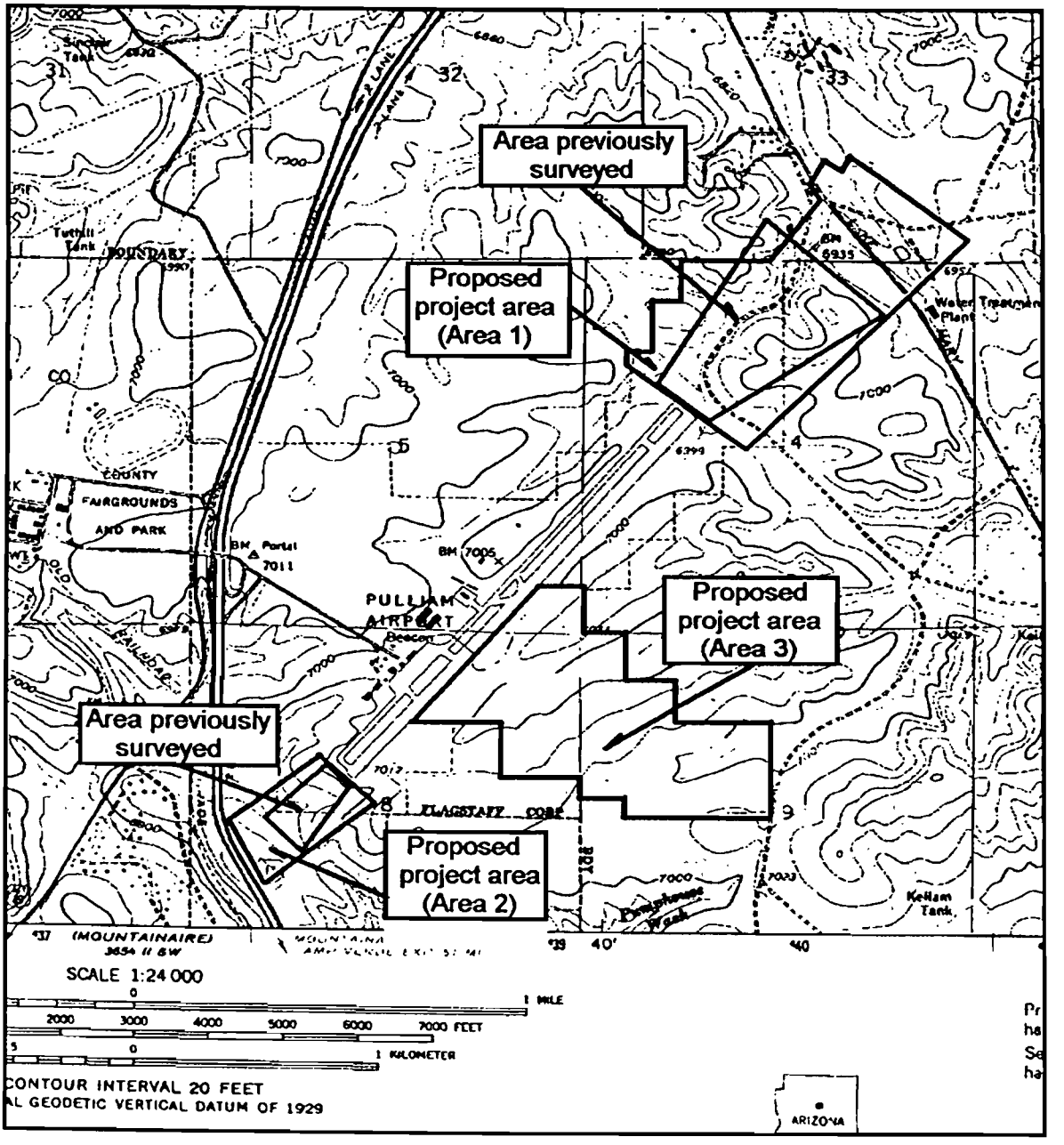

Figure 3. Current project survey areas (Areas 1-3). USGS Flagstaff West, Arizona, 1962 (Photorevised 1983), 7.5' quadrangle.

include Fort Tuthill Military Grounds, four remnant historic structures, four historic trash sites, portions of three highways (Old Munds Highway, U.S. Interstate 40, and State Route 89A), and five sections of historic railroads (the Woody Ridge, Munds Park, Howard Springs, and Rogers Lake South Logging lines, and the Clark Valley to Howard Mountain railroad). Unfortunately, other than information concerning the construction and usage of the railroads, little additional information was found concerning the remaining historic and prehistoric properties. The National Register of Historic Places eligibility status for the majority of these properties is unknown. A complete list of the sites and properties within the 1 and 3 mile peripheries of Pulliam Air Field can be found in Table 2.

The following descriptions of the Woody Ridge Line, the Munds Park and Howard Springs Line, and the Rogers Lake South Line are excerpted from Stein (1993a:22-30) and added to this report to provide a basis for evaluating the historic importance of these railroad lines.

Woody Ridge Line

"In 1926 the AL&T engaged in cutting timber near Woody Ridge and Fry Canyon. To access these areas, the AL&T (Arizona Lumber and Timber Company) used the Rogers Lake line to what is now Fort Tuthill, extended the line one mile to the south, then shot the line west past Griffiths and London Springs. From London Springs, approximately six miles of main line were laid to the south to reach Woody Ridge and then Fry Canyon. Today the roadbed of this line can be seen crossing and recrossing US 89A south of Flagstaff. The cutting of this area was completed in 1926 or 1927." (Stein 1993a:25).

Munds Park and Howard Springs Line

"In the late 1920s and the early 1930s, cutting activities of the AL&T centered south of Flagstaff near Munds Park and Howard Spring. From the Rogers Lake line at Fort Tuthill, the Woody Ridge line was followed one mile south, then a new main line was built in a southerly direction. This main line continued through what is now Mountainaire (cut circa 1927). At a sink one mile south of Mountainaire, the line split into two forks. The west fork accessed Newman Park, Willard Spring, and Munds Park (areas cut between 1929 and 1931) and terminated just north of what is now Odell Lake. The east fork traveled through East Newman Park to Coyote Park and terminated at Howard Spring, cut circa 1929-1930. The spur eastward off this line accessed the west side of Coulter Ridge."

"The Munds Park-Howard Spring operation witnessed the transition from spur logging to truck logging. Circa 1931-1932, some of the logs cut by the Gibson brothers, AL&T's contractor, were hauled to Newman Park by the Gibson's trucks, then transported to Flagstaff by the AL&T/CARy train. The Gibsons continued to cut the area along the Mogollon Rim into the mid 1940s."

"The Howard Springs branch of this line witnessed a rebirth in 1941 when it was leased by the Saginaw and Manistee. At that time, the branch was expanded in a southeasterly direction from Howard Springs past Horse, Bert Lee, and Long Parks to Allan Lake. Virtually no spurs came off this branch, as all logs were hauled to it by truck. In 1953 the line and timbering along it were taken over by Southwest Lumber Mills (later called Southwest Forest Industries), which continued to operate the train until 1966." (Stein 1993a:25-30).

Rogers Lake South Line

"Although the Arizona Lumber Company began logging the area southwest of Flagstaff circa 1890, there is no strong evidence that this company or the AL&T built a logging railroad there before the twentieth century. Trackage used for the Rogers Lake line was 56 pound rail that had come from the Clark Valley line near Flagstaff. Construction of the line to Rogers Lake was likely begun in 1902."

The Rogers Lake line ran from Flagstaff in a south-southwesterly direction for approximately five miles to what is now Fort Tuthill. From there it proceeded in a west-northwesterly direction for approximately five miles until it reached the northeastern shores of Rogers Lake." (Stein 1993a:22)

Class III Surveys and Results

Class III, intensive on-ground surveys were completed within the proposed Air Field Extension areas of effect. These included approximately 88 acres beyond the northeast end of the existing runway, approximately 11 acres beyond the southwest end, and a 180-acre parcel off the southeast side of the runway. Generally, the properties are located within ponderosa pine forest along the southwest edge of Flagstaff. The forest consists of moderately dense, middle-age ponderosa pine and less abundant, less notable weedy species and grass. The surfaces and slopes are generally thick with pine needle cover. The underlying rock is Kaibab limestone, formed during the Permian period 300 million years ago by an inland sea. To the west of U.S. Highway 17, and north of U.S. Interstate 40, lie the higher elevations of the overlying San Francisco Mountain Volcanic Field, which formed approximately 70 million years ago. The soils in the area are derived entirely from limestone.

The surveys were conducted by traversing back-and-forth across the property, west to east, along parallel transects spaced at 15 meter intervals. Property boundaries and corners were located via the use of topographic maps indicating each property area and through the use of hand-held GPS units. Only those remains that are older than 50 years were recorded, but more recent remains were noted.

Portions of three previously recorded historic timber railroads were identified within the northeast runway extension (Area 1), along with several isolated historic artifacts. A section of one of the historic timber railroads lies just beyond the east edge of that survey. None of the recorded timber railroads are of a class that is considered eligible for listing on the National Register of Historic Places (NRHP), and none of the isolated artifacts are NRHP-eligible.

A few historic artifacts were also recorded within the southwest runway extension (Area 2). No sites were found within the 180 acres surveyed off the southeast side of the runway (Area 3), however large quantities of tin cans, and fewer pieces of glass were found in small dump sites nearest the southern edge of the property. This material dates from the 1950s and early 1960s and may be the remains of small campsites. Fairly recent fire rings of stone also occur in these areas. No evidence of past land use, other than what is considered fairly recent transient camping was observed.

The cultural resources studies find that no significant cultural resources are located within the proposed areas of effect of the Pulliam Air Field Extension Project. The only cultural resource sites that occur within these areas are historic timber railroads of a class that are not considered significant or NRHP-eligible.

Pages withheld as they contain precise locations of survey findings. A copy of the report has been submitted to the SHPO and the FAA.

Project Reports

Bernard-Shaw, M.

1990 *Archaeological Survey in the Painted Rock Reservoir Area, Western Arizona.* MS. on file, Center for Desert Archaeology (Technical Report 89-10), Tucson, Arizona.

Boston, R.

1997 *Skunk Hollow Thinning Project, Coconino National Forest, Arizona.* MS. on file, Coconino National Forest Supervisor's Office (CNF Project No. 97-66), Flagstaff, Arizona.

Bremer, J.M.

1987 *Kellam Pipeline and Maintenance, Coconino National Forest, Arizona.* MS. on file, Coconino National Forest Supervisor's Office (CNF Project No. 87-65), Flagstaff, Arizona.

1981b *Addendum: An Archaeological Survey of the Flagstaff City Limits Baseland, Coconino National Forest, Arizona.* MS. on file, Coconino National Forest Supervisor's Office (CNF Project No. 80-36), Flagstaff, Arizona.

Bremer, J.M. and J. Hunt

1981a *An Archaeological Survey of the Flagstaff City Limits Baseland, Coconino National Forest, Arizona.* MS. on file, Coconino National Forest Supervisor's Office (CNF Project No. 80-36), Flagstaff, Arizona.

Bremer, J.M. and P.J. Pilles

1984 *An Archaeological Survey of the Flagstaff Timber Sale Roads, Coconino National Forest, Arizona.* MS. on file, Coconino National Forest Supervisor's Office (CNF Project No. 80-67), Flagstaff, Arizona.

Crossley

1999 *Airport Urban Wildfire Reduction, Coconino National Forest, Arizona.* MS. on file, Coconino National Forest Supervisor's Office (CNF Project No. 99-89), Flagstaff, Arizona.

Davenport, M.

1996 *Brannen Homes Fuel Reduction Project, Coconino National Forest, Arizona.* MS. on file, Coconino National Forest Supervisor's Office (CNF Project No. 96-118), Flagstaff, Arizona.

Dosh, D.S.

1991 *LeBarron Fuel Products Sale, Coconino National Forest, Arizona.* MS. on file, Coconino National Forest Supervisor's Office (CNF Project No. 91-51A), Flagstaff, Arizona.

Dosh, D.S. and B.P. Stull

1998 *Mapping and Artifact Analysis at Three Historic Sites in the Proposed Fort Tuthill Recreation Expansion, Coconino County, Arizona.* MS. on file, Kinlani Archaeology, Ltd., Flagstaff, Arizona.

Dosh, S.G.

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CNF Project No. 82-53: No project/report title; 46.0 acres surveyed (Lockrow, W.G., 1982).
CNF Project No. 78-80: Flagstaff Timber Sales; 494.5 acres surveyed (Hohmann, et.al., 1979)
CNF Project No. 73-03: Mormon Lake Ranger District Administrative site; 10.0 acres surveyed (Hudgens, B.R., 1973)

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FLAGSTAFF
PULLIAM AIRPORT

Appendix E

HAZARDOUS MATERIALS REPORT

The EDR-Historical Topographic Map Report

Flagstaff Pulliam Airport
Shamrell Blvd
Flagstaff, AZ 86001

June 10, 2004

Inquiry Number: 1207788-4

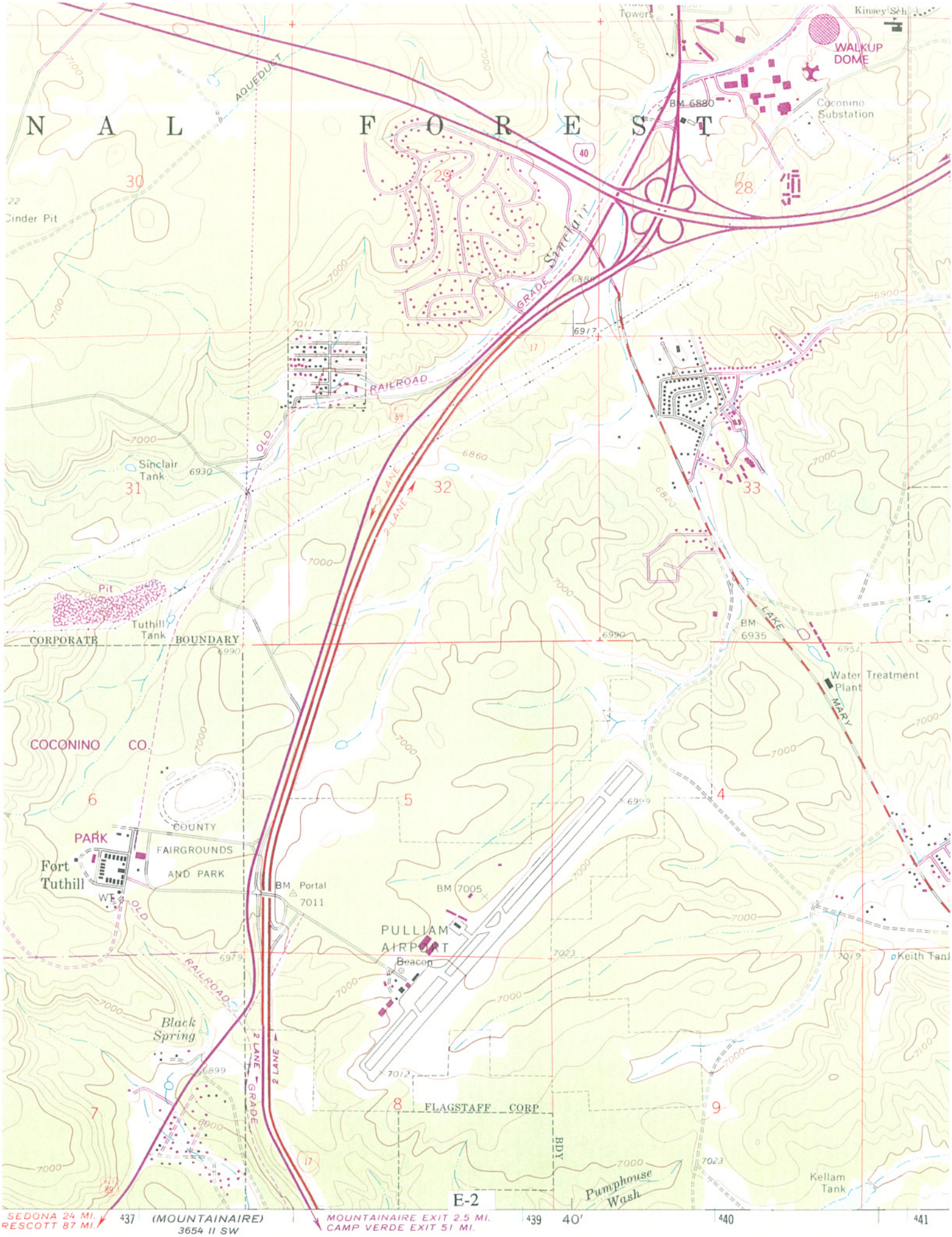
EDR™ Environmental Data Resources Inc

The Standard In Environmental Risk Management Information

440 Wheelers Farms Road
Milford, Connecticut 06460

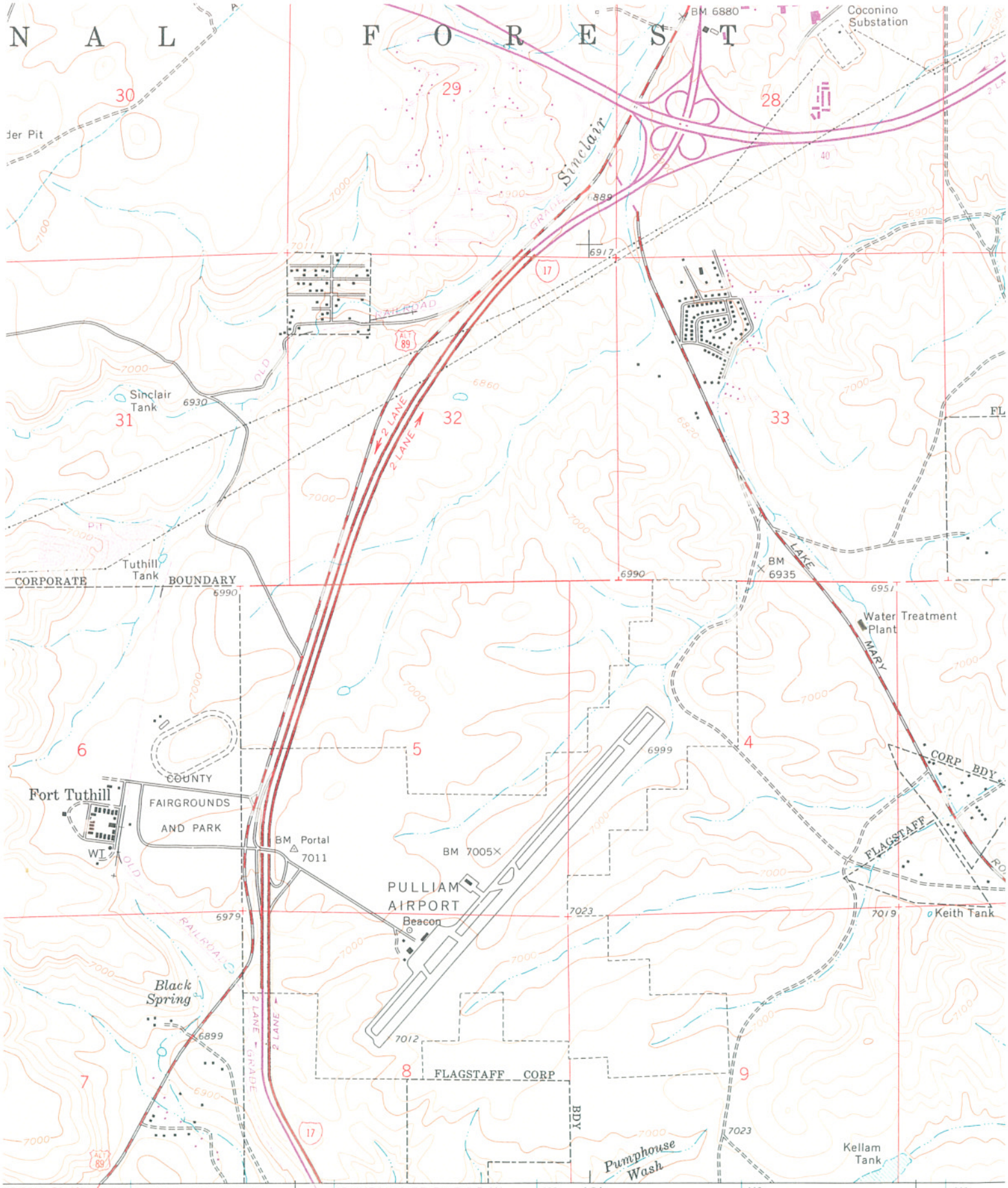
Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802



THE UNIVERSITY

Primary



SCALE 1:24 000

½ 0 1 MILE

0 1000 2000 3000 4000 5000 6000 7000 FEET

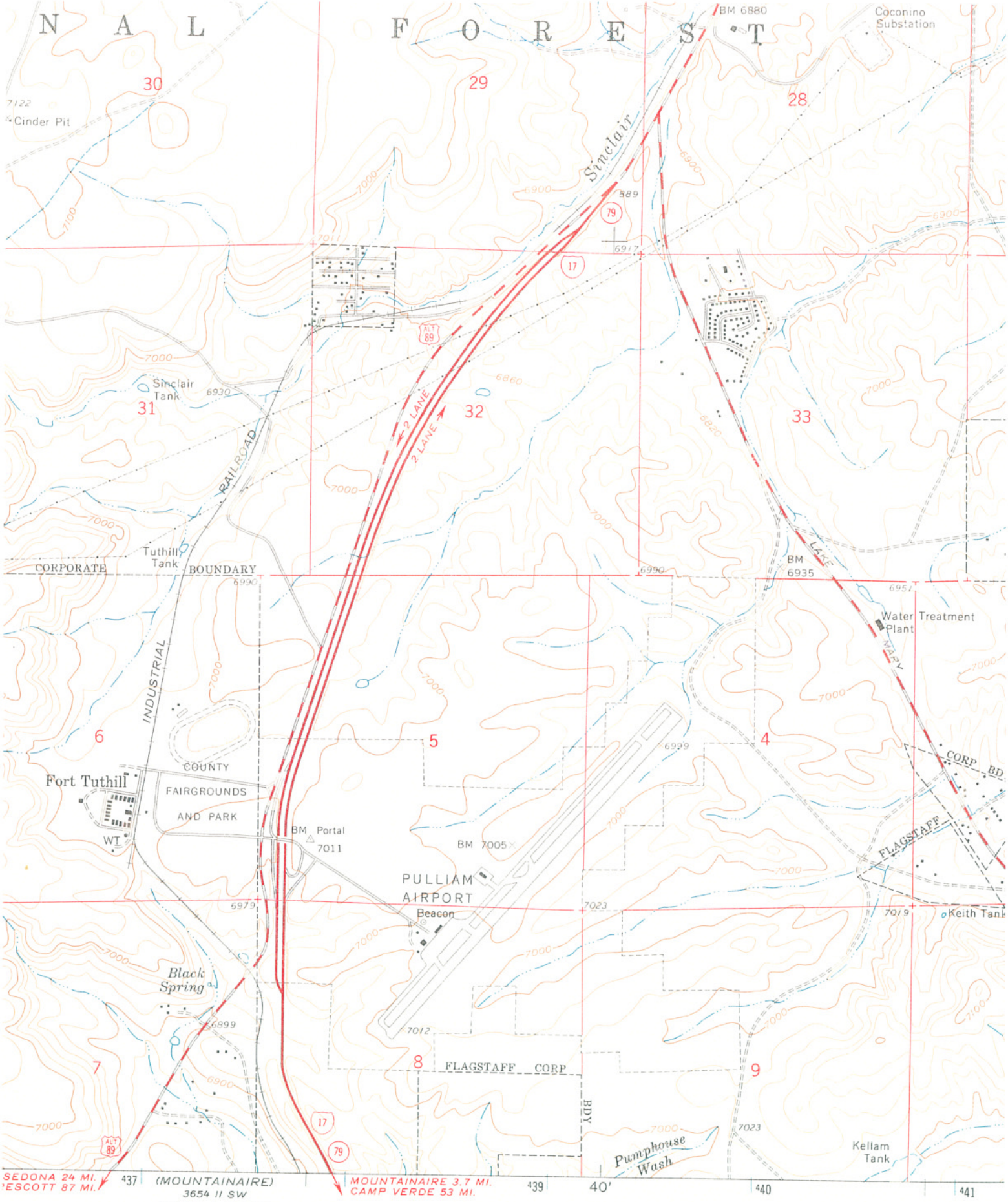
.5 0 1 KILOMETRE

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

E-3

THE UNIVERSITY OF TEXAS AT AUSTIN
MAY 27 1976
GEOLOGY LIBRARY

Primary hi
hard surfa
Secondary
hard surfa
Im



SCALE 1:24 000

½ 0 1 MILE

0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

Environmental Data Resources, Inc.
Historical Topographic Map Report

Environmental Data Resources, Inc.'s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property, and its surrounding area, resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of *reasonably ascertainable standard historical sources. Reasonably ascertainable is defined as information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.*

To meet the prior use requirements of ASTM E 1527-00, Section 7.3.4, the following *standard historical sources* may be used: aerial photographs, city directories, fire insurance maps, topographic maps, property tax files, land title records (although these cannot be the sole historical source consulted), building department records, or zoning/and use records. ASTM E 1527-00 requires *"All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful."* (ASTM E 1527-00, Section 7.3.2 page 12.)

EDR's Historical Topographic Map Report includes a search of available public and private color historical topographic map collections.

Topographic Maps

A topographic map (topo) is a color coded line-and-symbol representation of natural and selected artificial features plotted to a scale. Topos show the shape, elevation, and development of the terrain in precise detail by using contour lines and color coded symbols. Many features are shown by lines that may be straight, curved, solid, dashed, dotted, or in any combination. The colors of the lines usually indicate similar classes of information. For example, topographic contours (brown); lakes, streams, irrigation ditches, etc. (blue); land grids and important roads (red); secondary roads and trails, railroads, boundaries, etc. (black); and features that have been updated using aerial photography, but not field verified, such as disturbed land areas (e.g., gravel pits) and newly developed water bodies (purple).

For more than a century, the USGS has been creating and revising topographic maps for the entire country at a variety of scales. There are about 60,000 U.S. Geological Survey (USGS) produced topo maps covering the United States. Each map covers a specific quadrangle (quad) defined as a four-sided area bounded by latitude and longitude. Historical topographic maps are a valuable historical resource for documenting the prior use of a property and its surrounding area, and due to their frequent availability can be particularly helpful when other standard historical sources (such as city directories, fire insurance maps, or aerial photographs) are not reasonably ascertainable.

EDR™ Environmental Data Resources Inc

"Linking Technology with Tradition"

Sanborn® Map Report

Ship To: Brian Steffes
Michael Baker Jr., Inc.
100 Airside Drive
Moon Township, PA

Order Date: 6/8/2004 **Completion Date:** 6/8/2004
Inquiry #: 1207788.3S
P.O. #: NA
Site Name: Flagstaff Pulliam Airport
Address: Shamrell Blvd
City/State: Flagstaff, AZ 86001
Cross Streets:

Customer Project: B255470000000.1
1012743SXM 412-269-6300

This document reports that the largest and most complete collection of Sanborn fire insurance maps has been reviewed based on client supplied information, and fire insurance maps depicting the target property at the specified address were not identified.

NO COVERAGE

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Preliminary Map Report

A final EDR Report will be delivered after quality review is conducted and/or online adjustments are received by EDR.

Flagstaff Pulliam Airport

Flagstaff, AZ 86001
35.138455 / -111.671218
Coconino County

EDR Environmental Data Resources Inc

Nationwide Customer Service
1-800-352-0050

Print

SCO 231 6802
Allan B

To print this report, press CTRL-P
Reference Code: 0608-H8Jk

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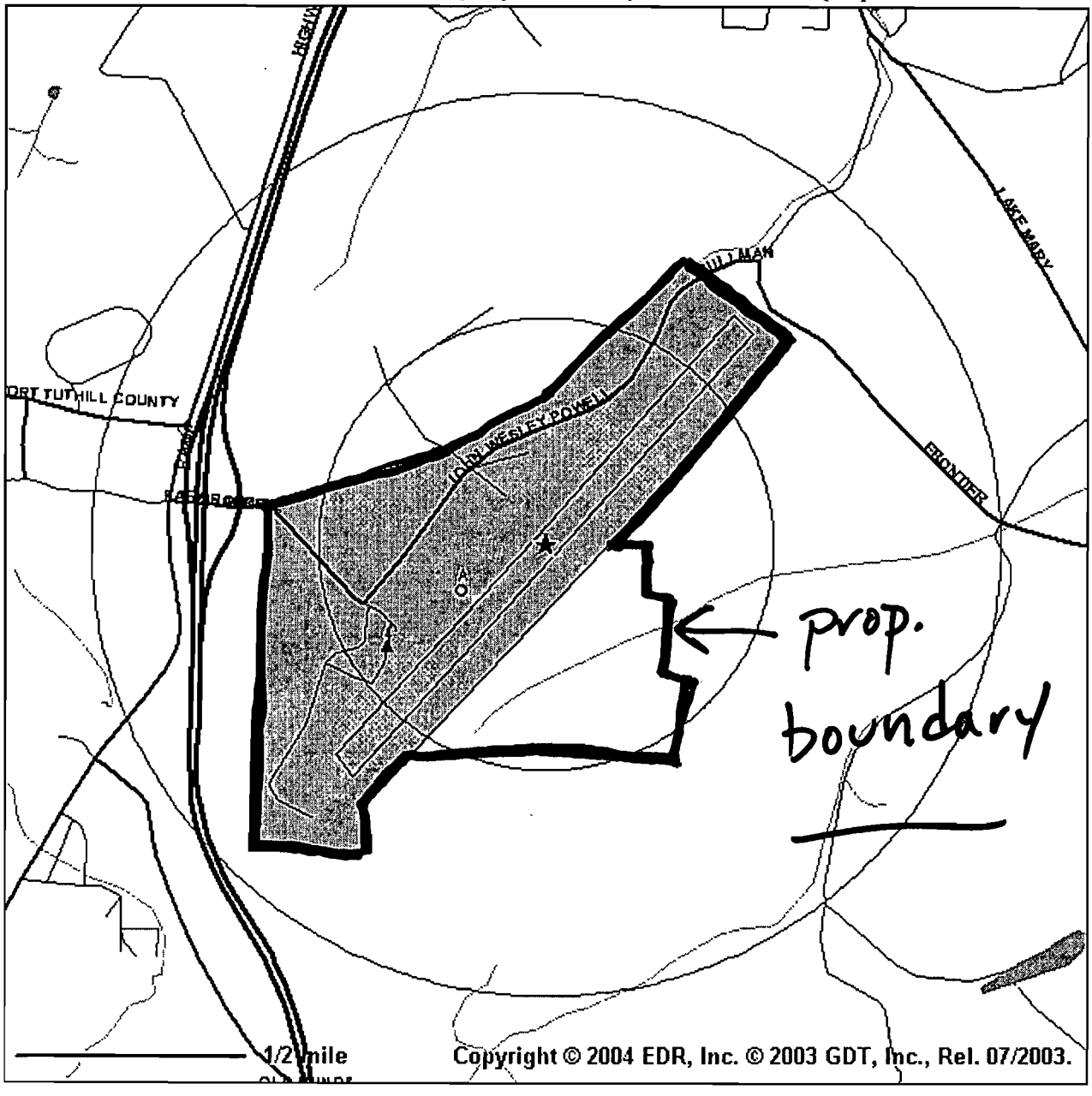
Preliminary Orphan Summary EDR PUR IQ Report



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This is a preliminary map report. It will be replaced by a final report after EDR conducts its quality review and you make your online adjustments, if any, hereto. The final report may contain materially different information from the information contained in this preliminary report. Only a final report should be used in connection with a final site assessment. You will be responsible for all online adjustments made by you to this preliminary map report.

Preliminary Map Findings Summary

The final, quality reviewed report will include target property match column.

Database	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD							
NPL	1	0	0	0	0	NR	0
Proposed NPL	1	0	0	0	0	NR	0
CERCLIS	0.5	0	0	0	NR	NR	0
CERC-NFRAP	0.25	0	0	NR	NR	NR	0
CORRACTS	1	0	0	0	0	NR	0
RCRIS-TSD	0.5	0	0	0	NR	NR	0
RCRIS Lg. Quan. Gen.	0.25	0	0	NR	NR	NR	0
RCRIS Sm. Quan. Gen.	0.25	0	0	NR	NR	NR	0
ERNS	0	NR	NR	NR	NR	NR	0
STATE ASTM STANDARD							
SPL	1	0	0	0	0	NR	0
State Haz. Waste	1	0	0	0	0	NR	0
State Landfill	0.5	0	0	0	NR	NR	0
LUST	0.5	0	1	1	NR	NR	2
UST	0.25	0	3	NR	NR	NR	3
AZ WQARF	1	0	0	0	0	NR	0
INDIAN LUST	0.5	0	0	0	NR	NR	0
INDIAN UST	0.25	0	0	NR	NR	NR	0
VCP	0.5	0	0	0	NR	NR	0
FEDERAL ASTM SUPPLEMENTAL							
CONSENT	1	0	0	0	0	NR	0
ROD	1	0	0	0	0	NR	0
Delisted NPL	1	0	0	0	0	NR	0
FINDS	0	NR	NR	NR	NR	NR	0
HMIRS	0	NR	NR	NR	NR	NR	0
MLTS	0	NR	NR	NR	NR	NR	0
MINES	0.25	0	0	NR	NR	NR	0
NPL Liens	0	NR	NR	NR	NR	NR	0
PADS	0	NR	NR	NR	NR	NR	0
US BROWNFIELDS	0.5	0	0	0	NR	NR	0
DOD	1	0	0	0	0	NR	0

FUDS	1	0	0	0	0	NR	0
INDIAN RESERV	1	0	0	0	0	NR	0
RAATS	0	NR	NR	NR	NR	NR	0
TRIS	0	NR	NR	NR	NR	NR	0
TSCA	0	NR	NR	NR	NR	NR	0
FTTS INSP	0	NR	NR	NR	NR	NR	0
SSTS	0	NR	NR	NR	NR	NR	0
STATE OR LOCAL ASTM SUPPLEMENTAL							
AST	0	NR	NR	NR	NR	NR	0
AZ Spills	0	NR	NR	NR	NR	NR	0
AZ DOD	0.5	0	0	0	NR	NR	0
WWFAC	0.5	0	0	0	NR	NR	0
Aquifer	0	NR	NR	NR	NR	NR	0
Dry Wells	0	NR	NR	NR	NR	NR	0
AZ AIRS	0	NR	NR	NR	NR	NR	0
EDR PROPRIETARY HISTORICAL DATABASES							
Coal Gas	1	0	0	0	0	NR	0
BROWNFIELDS DATABASES							
US BROWNFIELDS	0.5	0	0	0	NR	NR	0
VCP	0.5	0	0	0	NR	NR	0

Preliminary Map Findings

Map ID Direction Distance Dist(ft)	Sites	Databases	EDR ID EPA ID
A1 WSW 1/8 - 1/4 1115	NATIONAL WEATHER SERVICE RR 2 PULLIAM AIRPORT FLAGSTAFF, AZ 86001	UST	U001626486
	UST: Facility ID: 0-003473 Tank ID: 1 Date Installed: 04/28/1982 Tank Status: Closed		
A2 WSW 1/8 - 1/4 1142	PEABODY PULLIAM AIRPORT PULLIAM AIRPORT PEABODY HANGAR FLAGSTAFF, AZ 86001	LUST UST	U003049890
	LUST: Facility ID: 0-003643 Lust Number: 3555.01 Leak Priority: CLOSED SOIL LVL MEETS TIER1 Notification: 06/15/1994 Date Closed: 05/20/1999 **UST:** Facility ID: 0-003643 Tank ID: 1 Date Installed: 05/08/1980 Tank Status: Closed		
A3 WSW 1/8 - 1/4 1142	FAA FLAGSTAFF VORTAC 1 MI E OF I-17 PULLIAM AIRPORT FLAGSTAFF, AZ 86001	UST	U001624717
	UST: Facility ID: 0-000030 Tank ID: 1 Date Installed: 03/20/1978 Tank Status: Closed		

4 WSW 1/4 - 1/2 2188	FLAGSTAFF PULLIAM AIRPORT 6620 CESSNA CIRCLE FLAGSTAFF, AZ 86002	LUST UST	U001625806

LUST:

Facility ID: 0-002145
Lust Number: 3509.01
Leak Priority: CLOSED SOIL LVL MEETS TIER1
Notification: 05/03/1994
Date Closed: 08/04/1998

Facility ID: 0-002145
Lust Number: 3509.02
Leak Priority: CLOSED SOIL LVL MEETS TIER1
Notification: 06/21/1999
Date Closed: 06/21/2000

Facility ID: 0-002145
Lust Number: 3509.03
Leak Priority: CLOSED SOIL LVL MEETS TIER1
Notification: 06/21/1999
Date Closed: 06/21/2000

Facility ID: 0-002145
Lust Number: 3509.04
Leak Priority: CLOSED SOIL LVL MEETS TIER1
Notification: 06/21/1999
Date Closed: 06/21/2000

Facility ID: 0-002145
Lust Number: 3509.05
Leak Priority: CLOSED SOIL LVL MEETS TIER1
Notification: 06/19/2000
Date Closed: 06/21/2000

Facility ID: 0-002145
Lust Number: 3509.06
Leak Priority: CLOSED SOIL LVL MEETS TIER1
Notification: 06/19/2000
Date Closed: 06/21/2000

UST:

Facility ID: 0-002145 Tank ID: 1
Date Installed: 05/07/1953 Tank Status: Closed

Facility ID: 0-002145 Tank ID: 2
Date Installed: 05/07/1950 Tank Status: Closed

Facility ID: 0-002145 Tank ID: 3
Date Installed: 05/07/1950 Tank Status: Closed

Facility ID: 0-002145 Tank ID: 4
Date Installed: 05/08/1973 Tank Status: Closed

Facility ID: 0-002145 Tank ID: 5
Date Installed: 05/07/1956 Tank Status: Closed

Facility ID: 0-002145 Tank ID: 6
Date Installed: 05/08/1954 Tank Status: Closed

Facility ID: 0-002145 Tank ID: 7
Date Installed: 05/08/1975 Tank Status: Closed

City	EDR ID	Site Name	Site Address	Zip	Databases
	S106205122	MARBLE CANYON	.4 MILES SOUTHWEST OF US 89 ON ROAD BEHIND		SWF/LF
	S103895074	MORMAN LAKE	.7 MILES WEST OF AZ 486 ON MORMAN LAKE		SWF/LF
	S103895075	MUND'S PARK	.9 MILES WEST OF I-17 ON WILLIARD SPRINGS RD.		SWF/LF
	S106205196	GRAND CANYON SOUTH RIM	1 VAN AVE., GRAND CANYON NATIONAL PARK		SWF/LF
	S103895071	ASHURST LAKE	1.1 MILE ON ROAD TO ASHURST LAKE .25 MILES NORTH		SWF/LF
	S100293325	GRAND CANYON, S. RIN	1.1 MILES WEST OF AZ. 64, ON CENTER		SWF/LF
	S100293328	GRAND CANYON N. RIN	1.2 MILES WEST OF AZ. 67 ON WIDFORS		SWF/LF
	S103895078	WOODY LAKE	1.3 MILES SOUTH OF I-40 ON WOODY MOUNTAIN RD		SWF/LF
	S100293324	FREDONIA	1.5 MILES EAST OF U.S 89A ON END OF		SWF/LF
	S103895077	TOWN OF FREDONIA	1.5 MILES EAST US 89A ON END OF PRATT ST.		SWF/LF
	S100293326	PAGE	2.3 MILES N OF THE GLEN CANYON DAM		SWF/LF
	S103895076	NPS/LEES FERRY	4 MILES WEST OF US 89A ON LEES FERRY RD.		SWF/LF
	S100293323	CINDER LAKE	5.5 MILES N OF I-40 ON AZ. 89, E 2.		SWF/LF
	S106205195	CINDER LAKE	6770 E. LANDFILL RD., OUTSIDE OF FLAGSTAFF		SWF/LF
	S106205120	B.B BONNER CO.	BETWEEN INDUSTRIAL DR. AND THE SANTA FE RAILROAD T		SWF/LF
	S106205121	CITY OF PAGE (OLD)	EAST ON AZ 98 .3 MILES FROM JUNCTION WITH AZ 98 SO		SWF/LF
	S100293327	WILLIAMS	EXIT I-40 AT PITTMAN VALLEY RD, 2.1		SWF/LF
	S106205250	BADGER CREEK WASTE COLLECTION AREA TRANS	HWY 89 / BADGER CREEK ACCESS		SWF/LF
	S103895073	FOREST LAKE	IN FOREST LAKES, 2 MILES NORTH OF AZ 260 CANYON DR		SWF/LF
	S106205254	FLAGSTAFF TRANSFER STATION (WM)	T21N,R6E,S24, ASSESSOR'S PARCEL NUMBER 116-04-003T		SWF/LF
FLAGSTAFF	1000455285	TURNERS KUSTOM HOUSE AUTO BODY	1081 W HWY 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1000355683	TYRRELL CHEVROLET AND BUICK INC	1118 W HWY 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1004674718	COCONINO AUTO SUPPLY	1120 E RTE 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1006804751	HOME DEPOT 0482	1325 N ROUTE 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1004674862	OGDENS CLEANERS	1420 E RT 66 STE A101	86001	RCRIS-SQG, FINDS
FLAGSTAFF	U003936111	MAVERIK COUNTRY STORE #288	1690 W RTE 66	86001	UST
FLAGSTAFF	1000818114	W L GORE AND ASSOCIATES	1801 WEST US HWY 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1001212544	ECONO LUBE N TUNE 286	1830 E RTE 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1001486739	SAIA MOTOR FREIGHT LINE INC	21 DUNHAM RD HWY 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1006804186	PINE SPRINGS WOODY MOUNTAIN	2600 W RTE 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	99647982	2650 WEST SHANRELL BLVD FLAGSTAFF PULLIAM	2650 WEST SHANRELL BLVD FLAGSTAFF PULLIAM	86001	ERNS
FLAGSTAFF	1000390713	FAST 1 HOUR FOTO	4650 D-4 N HWY 89	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1000856712	OKLAHOMA INSTALLATION	4650 N HWY 89 MAIN BLDG	86001	RCRIS-SQG, FINDS
FLAGSTAFF	U001626967	SEARS ROEBUCK & CO 2358	4800 N HWY 89	86001	LUST, UST
FLAGSTAFF	U003886024	SAFEWAY FUEL STATION #270	5020 N HWY 89A	86001	UST
FLAGSTAFF	1000817951	OLES HOME CTR 590	5060 N HWY 89	86001	RCRIS-SQG, FINDS
FLAGSTAFF	U003153924	CITY OF FLAG/SANTA FE/SHELL OIL	521 E RT 66/501 E SANTA FE	86001	LUST, UST
FLAGSTAFF	1006804217	FLAGSTAFF CITY OF HH HAZ WASTE DAY	600 N THORPE PARK RD	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1000206280	ASPEN BODY SHOP	600 W HIGHWAY 66	86001	RCRIS-SQG, FINDS

FLAGSTAFF	A100156213	FLAGSTAFF CINDER SALES	6500 E. RT. 66		AST
FLAGSTAFF	S102365919	FOREST HIGHLANDS - WWTP	658 FOREST HIGHLANDS	86001	WWFAC, Aquifer
FLAGSTAFF	S106205255	CITY OF FLAGSTAFF HOUSEHOLD HAZARDOUS WA	6770 E LANDFILL RD		SWF/LF
FLAGSTAFF	U001154833	FLAGSTAFF RADIO	7 MILES N OF I-40 ON A-1 RD	86001	UST
FLAGSTAFF	1001212550	ROUTE 66 AUTO BODY	800 W RTE 66 STE 8	86001	RCRIS-SQG, FINDS
FLAGSTAFF	S102788333	FLAGSTAFF RANCH BUSINESS PARK - WWTP	FLAGSTAFF RANCH RD / I-40	0	WWFAC
FLAGSTAFF	1004438380	EL PASO NATURAL GAS FLAGSTAFF COMP STE	IMMEDIATELY NE OF FLAGSTAFF	86001	RCRIS-SQG, FINDS
FLAGSTAFF	S106152697	FLAGSTAFF, CITY OF-RIO DE FLAG	IN THE 600 BLOCK OF SOUTH BABBITT DR		Aquifer
FLAGSTAFF	A100170519	FLAGSTAFF NORDIC CENTER AZ SNOW BLOW	P.O. BOX 40		AST
FLAGSTAFF	1000708787	FEDERAL EXPRESS CORPORATION	R RTE 7	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1000351907	A T AND T CO FLAGSTAFF RS	ROUTE 3 BOX 190	86001	FINDS
FLAGSTAFF	1000184902	WOODARD ENERGY INC	RTE 1 BOX 50	86001	RCRIS-SQG, FINDS
FLAGSTAFF	A100136637	AT&T FLAGSTAFF	US 89 5.5 MILES NORTH OF I-40		AST
FLAGSTAFF	1004674603	U S NAVAL OBSERVATORY	WEST HWY 66	86001	RCRIS-SQG, FINDS
LEUPP	S101571088	TRANSWESTERN PIPELINE STATION	SEC 16 T22N R5E COCONINO CO	86001	SHWS
FLAGSTAFF	1004754677	U S B I A FLAGSTAFF BORDERTOWN DORMS	901 N KINLANI RD	86001	RCRIS-SQG, FINDS

EDR PUR-IQ™ Report

"the intelligent way to conduct historical research"

The EDR PUR-IQ report facilitates historical research planning required to complete the Phase I ESA process. The report identifies the *likelihood* of prior use coverage by searching EDR's proprietary historical source(s) database comprising nationwide information on: city directories, fire insurance maps, aerial photographs and historical topographic maps, flood maps, and National Wetland Inventory maps.

Potential for Historical (Prior Use) Coverage - Coverage in the following historical information sources may be used as a guide to develop your historical research strategy.

Number	Source	Coverage
1	City Directory	Coverage exists for portions of FLAGSTAFF for: 1950, 1958, 1987, 1990
2	Fire Insurance Map	When you order online any ASTM 2000 Package, or an EDR Radius Map with a Sanborn Map Search/Print, you receive site specific Sanborn Map coverage information at no charge.
3	Aerial Photograph	Aerial photography coverage may exist for portions of Coconino County. Please contact your EDR Account Executive for information about USGS photos available through EDR.
4	Topographic Map	USGS 7.5 minute quad sheet(s) associated with this site: **Historic** Coverage exists for Coconino County **Current** Target Property: 35111-B6 Flagstaff West AZ Additional required for 1 mile radius: 35111-A6 Mountainaire AZ

EDR's network of professional researchers, located throughout the United States, accesses the most extensive national collections of city directory, fire insurance map, aerial photograph and historical topographic map resources available for FLAGSTAFF, AZ . These collections may be located in multiple

libraries throughout the country. To ensure maximum coverage, EDR will often assign researchers at these multiple locations on your behalf.

STREET AND ADDRESS INFORMATION

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Preliminary Map Report complete.

reference number: 999051

Preliminary Sanborn® Map Report

Client Info:

Account: 1012743

Address: Michael Baker Jr., Inc.
100 Airside Drive, Airside Business Park
Moon Township, PA 15108

Date: 6/8/2004

Site Name: Flagstaff Pulliam Airport

Address:

City/State: Flagstaff, AZ

Zip Code: 86001

This document reports that EDR's collection of Sanborn® fire insurance maps has been reviewed, and based on client-supplied information, Sanborn® fire insurance maps depicting the target property at the specified location were not identified.

NO COVERAGE

A final Sanborn® Map Report is provided when the Sanborn® Map Search Print Report is ordered.

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This is a preliminary report. It will be replaced by a final report after quality review. The final report may contain materially different information from the information contained in this preliminary report. Only a final report should be used in connection with a final site assessment.

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The EDR Aerial Photo Decade Package

Flagstaff Pulliam Airport
Shamrell Blvd
Flagstaff, AZ 86001

June 08, 2004

Inquiry Number: 1207788.5

EDR™ Environmental Data Resources Inc

The Source For Environmental Risk Management Data

440 Wheelers Farms Road
Milford, Connecticut 06460

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

THE EDR AERIAL PHOTO DECADE PACKAGE

Environmental Data Resources, Inc.'s (EDR) Aerial Photo Decade Package is a screening tool designed to assist professionals in evaluating potential liability on a target property resulting from past activities.

ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM Standard requires a review of *reasonably ascertainable standard historical sources. Reasonably ascertainable means information that is publicly available, obtainable from a source within reasonable time and cost constraints, and practically reviewable.* To meet the prior use requirements of ASTM E 1527-00, Section 7.3.4, the following *standard historical sources* may be used: aerial photographs, fire insurance maps, property tax files, land title records (although these cannot be the sole historical source consulted), topographic maps, city directories, building department records, or zoning/land use records. ASTM E 1527-00 requires *"All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historcal sources as are necessary, and that are reasonably ascertainable and likely to be useful."* (ASTM E 1527-00, Section 7.3.4, page 12).

EDR has one of the nation's largest collections of historical aerial photography. EDR's Aerial Photo Decade Package provides digitally reproduced historical aerial photographs and includes one photo per decade, where available.

This document reports that EDR searched its own collection or select outside repository collections of aerial photography, and, based on client-supplied Target Property information, aerial photography including the Target Property was not deemed *reasonably ascertainable* (refer to ASTM E1527-00, Section 3.3.30) by Environmental Data Resources, Inc. (EDR). This **No Coverage** determination reflects a search only of aerial photography repository collections which EDR accessed. It cannot be concluded from this search that no coverage for the Target Property exists anywhere, in any collection.

NO COVERAGE

Please call EDR Nationwide Customer Service at
1-800-352-0050 (8am-8pm EST)
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The EDR-City Directory
Abstract

Flagstaff Pulliam Airport
Shamrell Blvd
Flagstaff, AZ 86001

June 09, 2004

Inquiry Number: 1207788-7

EDR™ Environmental Data Resources Inc

The Standard In Environmental Risk Management Information

440 Wheelers Farms Road
Milford, Connecticut 06460

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

Environmental Data Resources, Inc.
City Directory Abstract

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist professionals in evaluating potential liability on a target property resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of *reasonably ascertainable standard historical sources. Reasonably ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.*

To meet the prior use requirements of ASTM E 1527-00, Section 7.3.4, the following *standard historical sources* may be used: aerial photographs, fire insurance maps, property tax files, land title records (although these cannot be the sole historical source consulted), topographic maps, city directories, building department records, or zoning/land use records. ASTM E 1527-00 requires *"All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful."* (ASTM E 1527-00, Section 7.3.2, page 12.)

EDR's City Directory Abstract includes a search and abstract of available city directory data.

City Directories
City directories have been published for cities and towns across the U.S. since the 1700s. Originally a list of residents, the city directory developed into a sophisticated tool for locating individuals and businesses in a particular urban or suburban area. Twentieth century directories are generally divided into three sections: a business index, a list of resident names and addresses, and a street index. With each address, the directory lists the name of the resident or, if a business is operated from this address, the name and type of business (if unclear from the name). While city directory coverage is comprehensive for major cities, it may be spotty for rural areas and small towns. ASTM E 1527-00 specifies that a *"review of city directories (standard historical sources) at less than approximately five year intervals is not required by this practice." (ASTM E 1527-00, Section 7.3.2.1, page 12.)*

NAICS (North American Industry Classification System) Codes
NAICS is a unique, all-new system for classifying business establishments. Adopted in 1997 to replace the prior Standard Industry Classification (SIC) system, it is the system used by the statistical agencies of the United States. It is the first economic classification system to be constructed based on a single economic concept. To learn more about the background, the development and difference between NAICS and SIC, visit the following Census website: http://www.census.gov/epcd/www/naicsdev.htm.

Please call EDR Nationwide Customer Service at
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with questions or comments about your report.
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SUMMARY

- ***City Directories:***

This document reports that Environmental Data Resources, Inc. (EDR) searched select national repositories of business directories, and, based on client-supplied Target Property information, business directories including the Target Property information were not deemed *reasonably ascertainable* (refer to ASTM E1527-00, Section 3.3.30) by EDR. This **No Coverage** determination reflects a search only of business directory repository collections which EDR accessed. It can not be concluded from this search that no coverage for the Target Property exists anywhere, in any collection.

NO COVERAGE

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The EDR Radius Map
with GeoCheck®

Flagstaff Pulliam Airport
Shamrell Blvd
Flagstaff, AZ 86001

Inquiry Number: 1207788.2s

June 09, 2004

EDR™ Environmental
Data Resources Inc

The Standard in Environmental Risk Management Information

440 Wheelers Farms Road
Milford, Connecticut 06460

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

FORM SXM

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Thank you for your business.
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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

SHAMRELL BLVD
FLAGSTAFF, AZ 86001

COORDINATES

Latitude (North):	35.138500 - 35' 8' 18.6"
Longitude (West):	111.671200 - 111' 40' 16.3"
Universal Tranverse Mercator:	Zone 12
UTM X (Meters):	438853.4
UTM Y (Meters):	3888410.5
Elevation:	7002 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	35111-B6 FLAGSTAFF WEST, AZ
Source:	USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following government records. For more information on this property see page 6 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
PULLIAM AIRPORT DRYWELL CLOSURE 6619 S. CESSNA CIRCLE FLAGSTAFF, AZ 86001	Dry Wells	N/A
FLAGSTAFF PULLIAM AIRPORT 6620 CESSNA CIRCLE FLAGSTAFF, AZ 86002	UST LUST	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL..... National Priority List

EXECUTIVE SUMMARY

Proposed NPL..... Proposed National Priority List Sites
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP..... CERCLIS No Further Remedial Action Planned
CORRACTS..... Corrective Action Report
RCRIS-TSD..... Resource Conservation and Recovery Information System
RCRIS-LQG..... Resource Conservation and Recovery Information System
RCRIS-SQG..... Resource Conservation and Recovery Information System
ERNS..... Emergency Response Notification System

STATE ASTM STANDARD

SPL..... Superfund Program List
SHWS..... ZipAcids List
SWF/LF..... Directory of Solid Waste Facilities
AZ WQARF..... Water Quality Assurance Revolving Fund Sites
INDIAN UST..... Underground Storage Tanks on Indian Land
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
VCP..... Voluntary Remediation Program Sites

FEDERAL ASTM SUPPLEMENTAL

CONSENT..... Superfund (CERCLA) Consent Decrees
ROD..... Records Of Decision
Delisted NPL..... National Priority List Deletions
FINDS..... Facility Index System/Facility Identification Initiative Program Summary Report
HMIRS..... Hazardous Materials Information Reporting System
MLTS..... Material Licensing Tracking System
MINES..... Mines Master Index File
NPL Liens..... Federal Superfund Liens
PADS..... PCB Activity Database System
US BROWNFIELDS..... A Listing of Brownfields Sites
FUDS..... Formerly Used Defense Sites
INDIAN RESERV..... Indian Reservations
DOD..... Department of Defense Sites
RAATS..... RCRA Administrative Action Tracking System
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
SSTS..... Section 7 Tracking Systems
FTTS INSP..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

STATE OR LOCAL ASTM SUPPLEMENTAL

AZ DOD..... Department of Defense Sites
WWFAC..... Waste Water Treatment Facilities
Aquifer..... Waste Water Treatment Facilities
AZ AIRS..... Arizona Airs Database

EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas..... Former Manufactured Gas (Coal Gas) Sites

BROWNFIELDS DATABASES

US BROWNFIELDS..... A Listing of Brownfields Sites

EXECUTIVE SUMMARY

AUL..... DEUR Database
VCP..... Voluntary Remediation Program Sites

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STATE ASTM STANDARD

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's LUST File Listing by Zip Code.

A review of the LUST list, as provided by EDR, and dated 02/01/2004 has revealed that there is 1 LUST site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
PEABODY PULLIAM AIRPORT	***PULLIAM AIRPORT PEABODY***	***1/8 - 1/4 WSW***	***B5***	***7***

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Arizona UST-DMS Facility and Tank Data Listing by City database.

A review of the UST list, as provided by EDR, and dated 02/01/2004 has revealed that there are 3 UST sites within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
NATIONAL WEATHER SERVICE	RR 2 PULLIAM AIRPORT	1/8 - 1/4 WSW	B4	7
PEABODY PULLIAM AIRPORT	***PULLIAM AIRPORT PEABODY***	***1/8 - 1/4 WSW***	***B5***	***7***
FAA FLAGSTAFF VORTAC	1 MI E OF I-17 PULLIAM	1/8 - 1/4 WSW	B6	8

STATE OR LOCAL ASTM SUPPLEMENTAL

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Environmental Quality's Arizona UST-DMS Facility and Tank Data Listing by City database.

A review of the AST list, as provided by EDR, and dated 12/31/2000 has revealed that there is 1 AST

site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
WISEMAN AVIATION SELF-SERVE FU	6200 S. PULLIAM DRIVE	1/8 - 1/4 NW	3	7

SPILLS: The ADEQ Emergency Response unit documents chemical spills and incidents that are referred to the Unit. The logbook information for 1984-1986 consists of handwritten entries of the date, incident number and name of facility if known. Current logbooks are computerized and can be sorted by date, incident number, name, city (zip codes are not included), county, chemical and quantity. The sources is the Department of Environmental Quality's Hazardous Material Logbook.

A review of the AZ Spills list, as provided by EDR, has revealed that there is 1 AZ Spills site within approximately 0.5 miles of the target property.

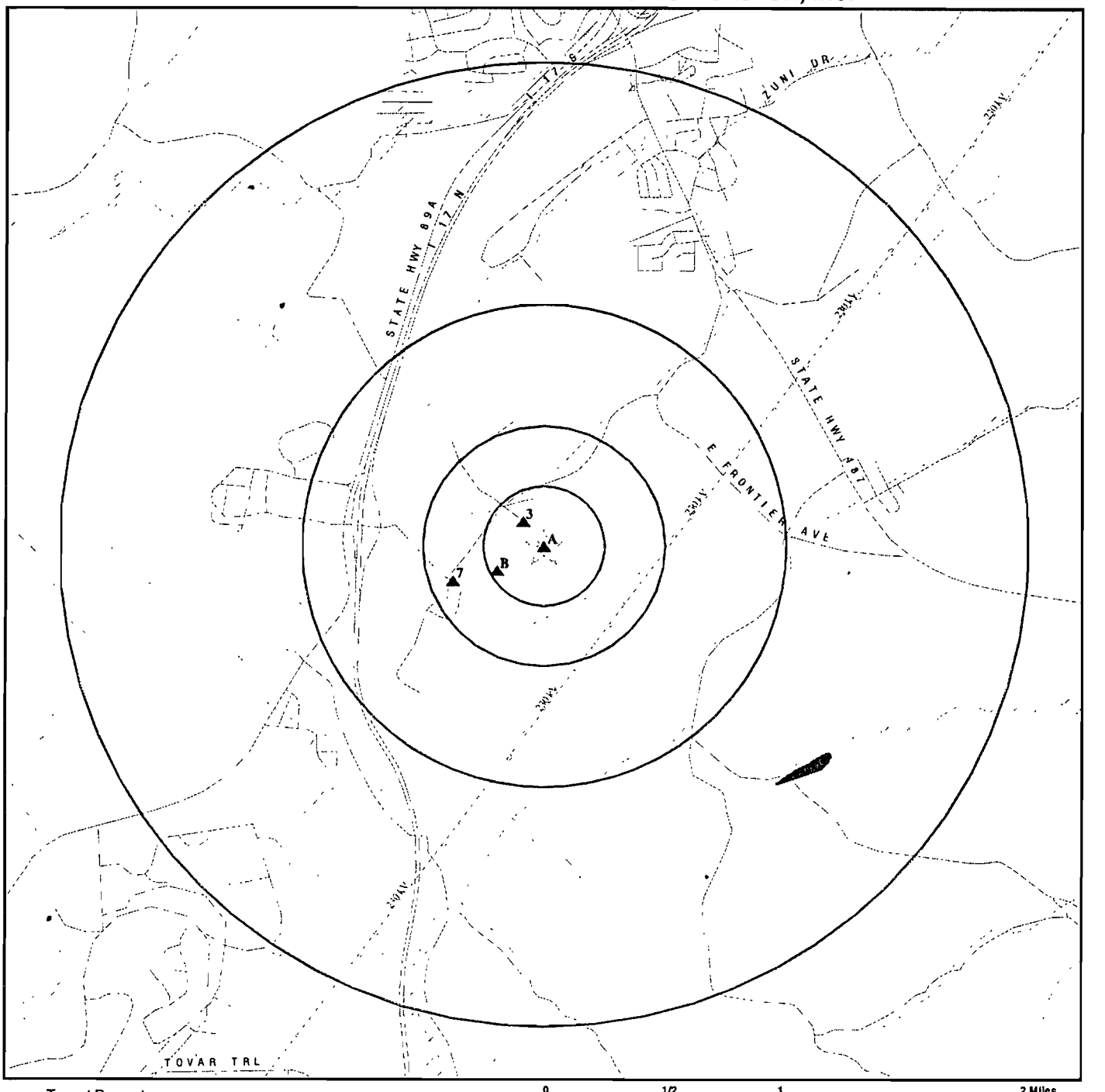
Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
WISEMAN AVIATION	2650 W. SHAMRELL BLVD.	1/4 - 1/2 WSW	7	8

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
TRANSWESTERN PIPELINE STATION	SHWS
CITY OF FLAGSTAFF HOUSEHOLD HAZARD	SWF/LF
FLAGSTAFF RANCH BUSINESS PARK - WW	WWFAC
FOREST HIGHLANDS - WWTP	WWFAC, Aquifer
SEARS ROEBUCK & CO 2358	UST, LUST
MIKE'S PEAK INTERSECTION	UST, LUST
CITY OF FLAG/SANTA FE/SHELL OIL	UST, LUST
SAFEWAY FUEL STATION #270	UST
MAVERIK COUNTRY STORE #288	UST
US NAVAL OBSERVOTORY	AST
AT&T FLAGSTAFF	AST
FLAGSTAFF NORDIC CENTER AZ SNOW BL	AST
GARRISON CHEVRON	AST
A T & T COMMUNICATIONS	AST
FLAGSTAFF CINDER SALES	AST
WOODARD ENERGY INC	RCRIS-SQG, FINDS
SAIA MOTOR FREIGHT LINE INC	RCRIS-SQG, FINDS
ASPEN BODY SHOP	RCRIS-SQG, FINDS
TYRRELL CHEVROLET AND BUICK INC	RCRIS-SQG, FINDS
TURNERS KUSTOM HOUSE AUTO BODY	RCRIS-SQG, FINDS
OLES HOME CTR 590	RCRIS-SQG, FINDS
OKLAHOMA INSTALLATION	RCRIS-SQG, FINDS
U S NAVAL OBSERVATORY	RCRIS-SQG, FINDS
EL PASO NATURAL GAS FLAGSTAFF COMP	RCRIS-SQG, FINDS
U S B I A FLAGSTAFF BORDERTOWN DOR	RCRIS-SQG, FINDS
FAST 1 HOUR FOTO	RCRIS-SQG, FINDS
HOME DEPOT 0482	RCRIS-SQG, FINDS
OGDENS CLEANERS	RCRIS-SQG, FINDS
FEDERAL EXPRESS CORPORATION	RCRIS-SQG, FINDS
ECONO LUBE N TUNE 286	RCRIS-SQG, FINDS
ROUTE 66 AUTO BODY	RCRIS-SQG, FINDS
COCONINO AUTO SUPPLY	RCRIS-SQG, FINDS
PINE SPRINGS WOODY MOUNTAIN	RCRIS-SQG, FINDS
FLAGSTAFF CITY OF HH HAZ WASTE DAY	RCRIS-SQG, FINDS
W L GORE AND ASSOCIATES	RCRIS-SQG, FINDS
ANNER YARD ON HWY 180 NORTH OF FLA	ERNS
ICE SKATING RINK, CITY OF FLAGSTAF	ERNS
JUST EAST OF FLAGSTAFF AZ MILE POS	ERNS
10 WEST OF FLAGSTAFF	ERNS
1 MI. S. ON I-40/15 MI. E. OF FLAG	ERNS
2650 WEST SHANRELL BLVD FLAGSTAFF	ERNS
A T AND T CO FLAGSTAFF RS	FINDS
FLAGSTAFF RANCH BUSINESS PARK - WW	FINDS
GOATHILL INC-SHEEP HILL MINE CLOSU	Aquifer
FLAGSTAFF, CITY OF-RIO DE FLAG	Aquifer

OVERVIEW MAP - 1207788.2s - Michael Baker Jr., Inc.



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- DOD Sites: AZ DEQ
- Water Quality Assurance Revolving Fund Areas

0 1/2 1 2 Miles

TARGET PROPERTY:	Flagstaff Pulliam Airport	CUSTOMER:	Michael Baker Jr., Inc.
ADDRESS:	Shamrell Blvd	CONTACT:	Brian Steffes
CITY/STATE/ZIP:	Flagstaff AZ 86001	INQUIRY #:	1207788.2s
LAT/LONG:	35.1385 / 111.6712	DATE:	June 09, 2004 12:15 pm

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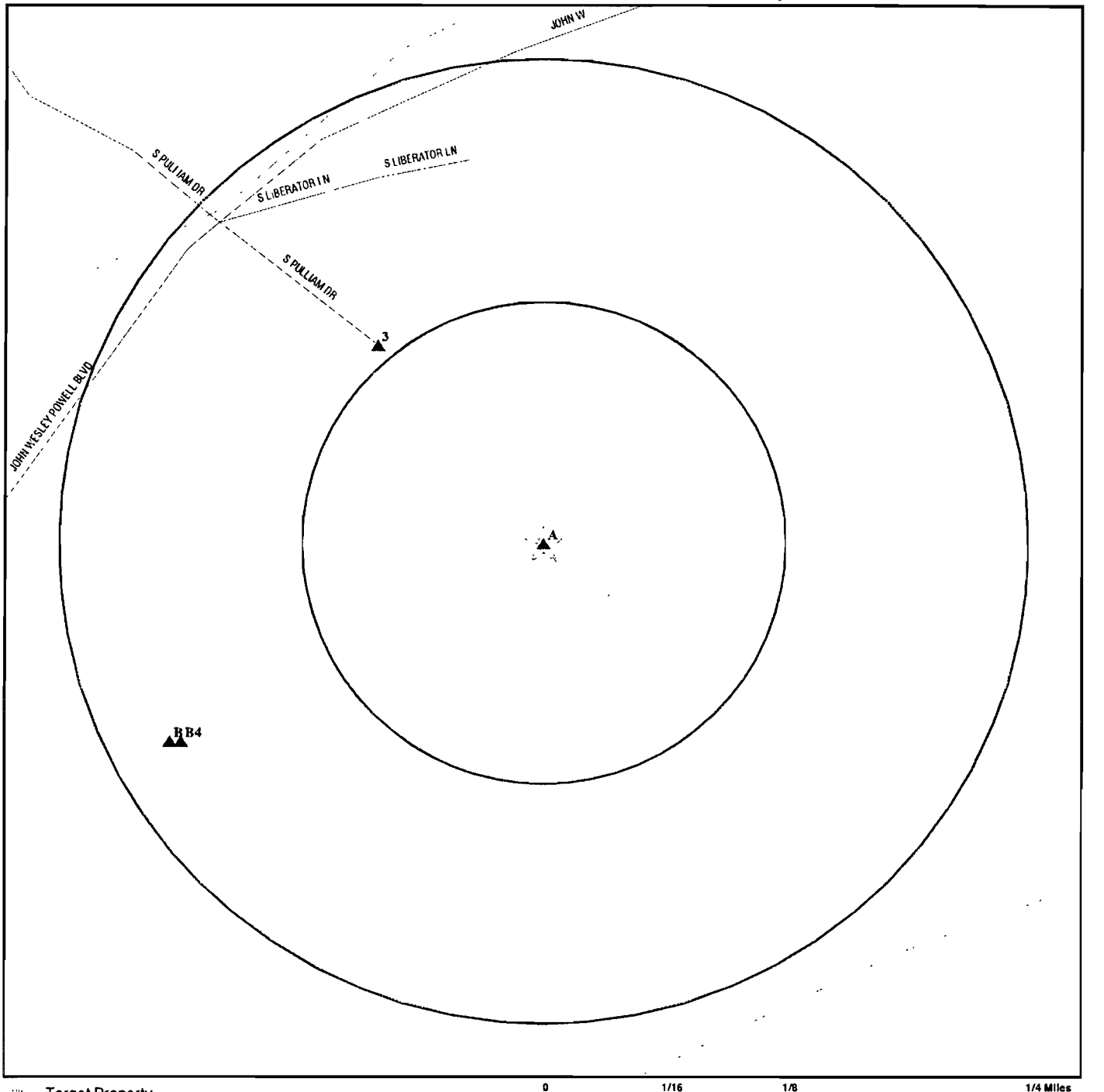
DETAIL MAP - 1207788.2s - Michael Baker Jr., Inc.



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/16 1/8 1/4 Miles

- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- DOD Sites: AZ DEQ
- Water Quality Assurance Revolving Fund Areas

TARGET PROPERTY:	Flagstaff Pulliam Airport	CUSTOMER:	Michael Baker Jr., Inc.
ADDRESS:	Shamrell Blvd	CONTACT:	Brian Steffes
CITY/STATE/ZIP:	Flagstaff AZ 86001	INQUIRY #:	1207788.2s
LAT/LONG:	35.1385 / 111.6712	DATE:	June 09, 2004 12:15 pm

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		1.500	0	0	0	0	0	0
Proposed NPL		1.500	0	0	0	0	0	0
CERCLIS		1.000	0	0	0	0	NR	0
CERC-NFRAP		0.750	0	0	0	0	NR	0
CORRACTS		1.500	0	0	0	0	0	0
RCRIS-TSD		1.000	0	0	0	0	NR	0
RCRIS Lg. Quan. Gen.		0.750	0	0	0	0	NR	0
RCRIS Sm. Quan. Gen.		0.750	0	0	0	0	NR	0
ERNS		0.500	0	0	0	NR	NR	0
STATE ASTM STANDARD								
SPL		1.500	0	0	0	0	0	0
State Haz. Waste		1.500	0	0	0	0	0	0
State Landfill		1.000	0	0	0	0	NR	0
LUST	X	1.000	0	1	0	0	NR	1
UST	X	0.750	0	3	0	0	NR	3
AZ WQARF		1.500	0	0	0	0	0	0
INDIAN UST		0.750	0	0	0	0	NR	0
INDIAN LUST		1.000	0	0	0	0	NR	0
VCP		1.000	0	0	0	0	NR	0
FEDERAL ASTM SUPPLEMENTAL								
CONSENT		1.500	0	0	0	0	0	0
ROD		1.500	0	0	0	0	0	0
Delisted NPL		1.500	0	0	0	0	0	0
FINDS		0.500	0	0	0	NR	NR	0
HMIRS		0.500	0	0	0	NR	NR	0
MLTS		0.500	0	0	0	NR	NR	0
MINES		0.750	0	0	0	0	NR	0
NPL Liens		0.500	0	0	0	NR	NR	0
PADS		0.500	0	0	0	NR	NR	0
US BROWNFIELDS		1.000	0	0	0	0	NR	0
FUDS		1.500	0	0	0	0	0	0
INDIAN RESERV		1.500	0	0	0	0	0	0
DOD		1.500	0	0	0	0	0	0
RAATS		0.500	0	0	0	NR	NR	0
TRIS		0.500	0	0	0	NR	NR	0
TSCA		0.500	0	0	0	NR	NR	0
SSTS		0.500	0	0	0	NR	NR	0
FTTS		0.500	0	0	0	NR	NR	0
STATE OR LOCAL ASTM SUPPLEMENTAL								
AST		0.500	0	1	0	NR	NR	1

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
AZ Spills		0.500	0	0	1	NR	NR	1
AZ DOD		1.000	0	0	0	0	NR	0
WWFAC		1.000	0	0	0	0	NR	0
Aquifer		0.500	0	0	0	NR	NR	0
Dry Wells	X	0.500	0	0	0	NR	NR	0
AZ AIRS		0.500	0	0	0	NR	NR	0
EDR PROPRIETARY HISTORICAL DATABASES								
Coal Gas		1.500	0	0	0	0	0	0
BROWNFIELDS DATABASES								
US BROWNFIELDS		1.000	0	0	0	0	NR	0
AUL		0.750	0	0	0	0	NR	0
VCP		1.000	0	0	0	0	NR	0

NOTES:

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

A1 Target Property — **PULLIAM AIRPORT DRYWELL CLOSURE**, **6619 S. CESSNA CIRCLE**, **FLAGSTAFF, AZ 86001** — **Dry Wells** — **S105989886**, **N/A**

Site 1 of 2 in cluster A

Actual: 7002 ft.

DRY WELLS:
Number of Wells: 1
Beginning Registration Number: 22010

A2 Target Property — **FLAGSTAFF PULLIAM AIRPORT**, **6620 CESSNA CIRCLE**, **FLAGSTAFF, AZ 86002** — **UST** **U001625806**, **LUST** **N/A**

Site 2 of 2 in cluster A

Actual: 7002 ft.

LUST:

Facility ID: 0-002145
Lust Number: 3509 01
Leak Priority: CLOSED SOIL LVL MEETS TIER1
Notification: 05/03/1994
Date Closed: 08/04/1998

Facility ID: 0-002145
Lust Number: 3509.02
Leak Priority: CLOSED SOIL LVL MEETS TIER1
Notification: 06/21/1999
Date Closed: 06/21/2000

Facility ID: 0-002145
Lust Number: 3509.03
Leak Priority: CLOSED SOIL LVL MEETS TIER1
Notification: 06/21/1999
Date Closed: 06/21/2000

Facility ID: 0-002145
Lust Number: 3509.04
Leak Priority: CLOSED SOIL LVL MEETS TIER1
Notification: 06/21/1999
Date Closed: 06/21/2000

Facility ID: 0-002145
Lust Number: 3509.05
Leak Priority: CLOSED SOIL LVL MEETS TIER1
Notification: 06/19/2000
Date Closed: 06/21/2000

Facility ID: 0-002145
Lust Number: 3509.06
Leak Priority: CLOSED SOIL LVL MEETS TIER1
Notification: 06/19/2000
Date Closed: 06/21/2000

UST:

Facility ID: 0-002145 — Tank ID: 1
Date Installed: 05/07/1953 — Tank Status: Closed

FLAGSTAFF PULLIAM AIRPORT (Continued) **U001625806**

Facility ID:	0-002145	Tank ID:	2
Date Installed:	05/07/1950	Tank Status:	Closed
Facility ID:	0-002145	Tank ID:	3
Date Installed:	05/07/1950	Tank Status:	Closed
Facility ID:	0-002145	Tank ID:	4
Date Installed:	05/08/1973	Tank Status:	Closed
Facility ID:	0-002145	Tank ID:	5
Date Installed:	05/07/1956	Tank Status:	Closed
Facility ID:	0-002145	Tank ID:	6
Date Installed:	05/08/1954	Tank Status:	Closed
Facility ID:	0-002145	Tank ID:	7
Date Installed:	05/08/1975	Tank Status:	Closed

3
NW
1/8-1/4
706 ft.

WISEMAN AVIATION SELF-SERVE FUEL DISPENSING SYSTEM **AST** **A100170806**
6200 S. PULLIAM DRIVE **N/A**
FLAGSTAFF, AZ

Relative:
Higher

Actual:
7004 ft.

AST:

Facility Status:	Not reported
Group Code:	AGSTS
Ownership:	Not reported
Owner:	Orville Wiseman 6200 S. Pulliam Drive Suite 108 Flagstaff, AZ
Owner Telephone:	Not reported
Comments:	Not reported

B4
WSW
1/8-1/4
1126 ft.

NATIONAL WEATHER SERVICE **UST** **U001626486**
RR 2 PULLIAM AIRPORT **N/A**
FLAGSTAFF, AZ 86001

Site 1 of 3 in cluster B

Relative:
Higher

Actual:
7003 ft.

UST:

Facility ID:	0-003473	Tank ID:	1
Date Installed:	04/28/1982	Tank Status:	Closed

B5
WSW
1/8-1/4
1153 ft.

PEABODY PULLIAM AIRPORT **UST** **U003049890**
PULLIAM AIRPORT PEABODY HANGAR **LUST** **N/A**
FLAGSTAFF, AZ 86001

Site 2 of 3 in cluster B

Relative:
Higher

Actual:
7003 ft.

LUST:

Facility ID:	0-003643
Lust Number:	3555.01
Leak Priority:	CLOSED SOIL LVL MEETS TIER1
Notification:	06/15/1994
Date Closed:	05/20/1999

UST:

PEABODY PULLIAM AIRPORT (Continued) — **U003049890**

Facility ID:	0-003643	Tank ID:	1
Date Installed:	05/08/1980	Tank Status:	Closed

B6
WSW
1/8-1/4
1153 ft.

Relative:
Higher

Actual:
7003 ft.

FAA FLAGSTAFF VORTAC — **UST** — **U001624717**
1 MI E OF I-17 PULLIAM AIRPORT — **N/A**
FLAGSTAFF, AZ 86001

Site 3 of 3 in cluster B

UST:

Facility ID:	0-000030	Tank ID:	1
Date Installed:	03/20/1978	Tank Status:	Closed

7
WSW
1/4-1/2
2130 ft.

Relative:
Higher

Actual:
7003 ft.

WISEMAN AVIATION — **AZ Spills** — **S104851505**
2650 W. SHAMRELL BLVD. — **N/A**
FLAGSTAFF, AZ

Az Spills:

Facility ID:	100584214	Incident Date:	11/04/1999
Response Date:	N/A	Report / Assist:	11/04/1999
Type:	Spill	Referral Date:	11/05/1999
Incident Number:	00-038-B		
Strucure:	Truck		
Referred to:	SWS		
Chemicals:	JP-8 Jet Fuel		
Property Mngmt:	Private		
Fund Amount:	Pvt/Unk		
Quantity:	610 gals.		

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
FLAGSTAFF	1000184902	WOODARD ENERGY INC	RTE 1 BOX 50	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1000351907	A T AND T CO FLAGSTAFF RS	ROUTE 3 BOX 190	86001	FINDS
FLAGSTAFF	A100156458	US NAVAL OBSERVOTORY	HWY 66 WEST		AST
FLAGSTAFF	A100136637	AT&T FLAGSTAFF	US 89 5.5 MILES NORTH OF I-40		AST
FLAGSTAFF	93334049	ANNER YARD ON HWY 180 NORTH OF FLA	ANNER YARD ON HWY 180 NORTH OF		ERNS
FLAGSTAFF	A100170519	FLAGSTAFF NORDIC CENTER AZ SNOW BL	P.O. BOX 40		AST
FLAGSTAFF	1001486739	SAIA MOTOR FREIGHT LINE INC	21 DUNHAM RD HWY 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1007144854	FLAGSTAFF RANCH BUSINESS PARK - WW	FLAGSTAFF RANCH RD & I-40		FINDS
FLAGSTAFF	S102788333	FLAGSTAFF RANCH BUSINESS PARK - WW	FLAGSTAFF RANCH RD / I-40		WWFAC
FLAGSTAFF	S102365919	FOREST HIGHLANDS - WWTP	658 FOREST HIGHLANDS	86001	WWFAC, Aquifer
FLAGSTAFF	1000206280	ASPEN BODY SHOP	600 W HIGHWAY 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	A100136821	GARRISON CHEVRON	NORTH HIGHWAY 89 & CAMPBELL RO		AST
FLAGSTAFF	A100170384	A T & T COMMUNICATIONS	10380 N. HIGHWAY 89		AST
FLAGSTAFF	1000355683	TYRRELL CHEVROLET AND BUICK INC	1118 W HWY 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1000455285	TURNERS KUSTOM HOUSE AUTO BODY	1081 W HWY 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1000817951	OLES HOME CTR 590	5060 N HWY 89	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1000856712	OKLAHOMA INSTALLATION	4650 N HWY 89 MAIN BLDG	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1004674603	U S NAVAL OBSERVATORY	WEST HWY 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	U001626967	SEARS ROEBUCK & CO 2358	4800 N HWY 89	86001	UST, LUST
FLAGSTAFF	U003886024	SAFEWAY FUEL STATION #270	5020 N HWY 89A	86001	UST
FLAGSTAFF	94415559	ICE SKATING RINK, CITY OF FLAGSTAF	ICE SKATING RINK, CITY OF FLAG		ERNS
FLAGSTAFF	1004438380	EL PASO NATURAL GAS FLAGSTAFF COMP	IMMEDIATELY NE OF FLAGSTAFF	86001	RCRIS-SQG, FINDS
FLAGSTAFF	8871178	JUST EAST OF FLAGSTAFF AZ MILE POS	JUST EAST OF FLAGSTAFF AZ MILE		ERNS
FLAGSTAFF	1004754677	U S B I A FLAGSTAFF BORDERTOWN DOR	901 N KINLANI RD	86001	RCRIS-SQG, FINDS
FLAGSTAFF	S106205255	CITY OF FLAGSTAFF HOUSEHOLD HAZARD	6770 E LANDFILL RD		SWF/LF
FLAGSTAFF	U001628933	MIKE'S PEAK INTERSECTION	S MILTON RD, CLAY AVE, SITGREA	86001	UST, LUST
FLAGSTAFF	1000390713	FAST 1 HOUR FOTO	4650 D-4 N HWY 89	86001	RCRIS-SQG, FINDS
FLAGSTAFF	2000546927	10 WEST OF FLAGSTAFF	10 WEST OF FLAGSTAFF		ERNS
FLAGSTAFF	1006804751	HOME DEPOT 0482	1325 N ROUTE 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1004674862	OGDENS CLEANERS	1420 E RT 66 STE A101	86001	RCRIS-SQG, FINDS
FLAGSTAFF	U003153924	CITY OF FLAG/SANTA FE/SHELL OIL	521 E RT 66/501 E SANTA FE	86001	UST, LUST
FLAGSTAFF	A100156213	FLAGSTAFF CINDER SALES	6500 E. RT. 66		AST
FLAGSTAFF	1000708787	FEDERAL EXPRESS CORPORATION	R RTE 7	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1001212544	ECONO LUBE N TUNE 286	1830 E RTE 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1001212550	ROUTE 66 AUTO BODY	800 W RTE 66 STE 8	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1004674718	COCONINO AUTO SUPPLY	1120 E RTE 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	1006804186	PINE SPRINGS WOODY MOUNTAIN	2600 W RTE 66	86001	RCRIS-SQG, FINDS
FLAGSTAFF	U003936111	MAVERIK COUNTRY STORE #288	1690 W RTE 66	86001	UST
FLAGSTAFF	88464587	1 MI. S. ON I-40/15 MI. E. OF FLAG	1 MI. S ON I-40/15 MI. E. OF		ERNS
FLAGSTAFF	99647982	2650 WEST SHANRELL BLVD FLAGSTAFF	2650 WEST SHANRELL BLVD FLAGST	86001	ERNS
FLAGSTAFF	S106152741	GOATHILL INC-SHEEP HILL MINE CLOSU	SHEEP HILL		Aquifer
FLAGSTAFF	S106152697	FLAGSTAFF, CITY OF-RIO DE FLAG	IN THE 600 BLOCK OF SOUTH BABB		Aquifer
FLAGSTAFF	1006804217	FLAGSTAFF CITY OF HH HAZ WASTE DAY	600 N THORPE PARK RD	86001	RCRIS-SQG, FINDS

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
FLAGSTAFF	1000818114	W L GORE AND ASSOCIATES	1801 WEST US HWY 66	86001	RCRIS-SQG, FINDS
LEUPP	S101571088	TRANSWESTERN PIPELINE STATION	SEC 16 T22N R5E COCONINO CO	86001	SHWS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List
Source: EPA
Telephone: N/A
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/04
Date Made Active at EDR: 05/21/04
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 05/04/04
Elapsed ASTM days: 17
Date of Last EDR Contact: 05/04/04

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 8
Telephone: 303-312-6774

EPA Region 4
Telephone 404-562-8033

Proposed NPL: Proposed National Priority List Sites
Source: EPA
Telephone: N/A

Date of Government Version: 04/27/04
Date Made Active at EDR: 05/21/04
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 05/04/04
Elapsed ASTM days: 17
Date of Last EDR Contact: 05/04/04

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA
Telephone: 703-413-0223
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/26/04
Date Made Active at EDR: 04/02/04
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 03/22/04
Elapsed ASTM days: 11
Date of Last EDR Contact: 03/22/04

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Source: EPA
Telephone: 703-413-0223
As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 02/26/04
Date Made Active at EDR: 04/02/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/22/04
Elapsed ASTM days: 11
Date of Last EDR Contact: 03/22/04

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 800-424-9346
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/15/04
Date Made Active at EDR: 04/15/04
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 03/25/04
Elapsed ASTM days: 21
Date of Last EDR Contact: 03/08/04

RCRIS: Resource Conservation and Recovery Information System
Source: EPA
Telephone: 800-424-9346
Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 04/13/04
Date Made Active at EDR: 05/13/04
Database Release Frequency: Varies

Date of Data Arrival at EDR: 04/20/04
Elapsed ASTM days: 23
Date of Last EDR Contact: 04/20/04

ERNS: Emergency Response Notification System
Source: National Response Center, United States Coast Guard
Telephone: 202-260-2342
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/03
Date Made Active at EDR: 03/12/04
Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/26/04
Elapsed ASTM days: 46
Date of Last EDR Contact: 04/26/04

FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System
Source: EPA/NTIS
Telephone: 800-424-9346
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01
Database Release Frequency: Biennially

Date of Last EDR Contact: 03/16/04
Date of Next Scheduled EDR Contact: 06/14/04

CONSENT: Superfund (CERCLA) Consent Decrees
Source: EPA Regional Offices
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A
Database Release Frequency: Varies

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

ROD: Records Of Decision
Source: EPA
Telephone: 703-416-0223
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/09/04
Database Release Frequency: Annually
Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

DELISTED NPL: National Priority List Deletions
Source: EPA
Telephone: N/A
The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 05/04/04
Date of Next Scheduled EDR Contact: 08/02/04

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report
Source: EPA
Telephone: N/A
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/08/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/17/04
Database Release Frequency: Annually
Date of Last EDR Contact: 04/20/04
Date of Next Scheduled EDR Contact: 07/19/04

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/15/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 04/05/04
Date of Next Scheduled EDR Contact: 07/05/04

MINES: Mines Master Index File
Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959

Date of Government Version: 03/05/04
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 03/30/04
Date of Next Scheduled EDR Contact: 06/28/04

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-564-4267
Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 03/12/04
Date of Next Scheduled EDR Contact: 05/24/04

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-564-3887
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 12/30/03
Database Release Frequency: Annually
Date of Last EDR Contact: 05/12/04
Date of Next Scheduled EDR Contact: 08/09/04

DOD: Department of Defense Sites
Source: USGS
Telephone: 703-692-8801
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 02/02/04
Date of Next Scheduled EDR Contact: 05/10/04

STORMWATER: Storm Water General Permits
Source: Environmental Protection Agency
Telephone: 202 564-0746
A listing of all facilities with Storm Water General Permits.

Date of Government Version: N/A
Database Release Frequency: Quarterly
Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

INDIAN RESERV: Indian Reservations
Source: USGS
Telephone: 202-208-3710
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 10/01/03
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 02/02/04
Date of Next Scheduled EDR Contact: 05/10/04

US BROWNFIELDS: A Listing of Brownfields Sites
Source: Environmental Protection Agency
Telephone: 202-566-2777
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 04/14/04
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 03/15/04
Date of Next Scheduled EDR Contact: 06/14/04

RMP: Risk Management Plans
Source: Environmental Protection Agency
Telephone: 202-564-8600
When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: N/A
Database Release Frequency: N/A
Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

FUDS: Formerly Used Defense Sites
Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 10/01/03
Database Release Frequency: Varies
Date of Last EDR Contact: 04/26/04
Date of Next Scheduled EDR Contact: 07/05/04

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 03/08/04
Date of Next Scheduled EDR Contact: 06/07/04

TRIS: Toxic Chemical Release Inventory System
Source: EPA
Telephone: 202-566-0250
Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/01
Database Release Frequency: Annually
Date of Last EDR Contact: 03/23/04
Date of Next Scheduled EDR Contact: 06/21/04

TSCA: Toxic Substances Control Act
Source: EPA
Telephone: 202-260-5521
Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02
Database Release Frequency: Every 4 Years
Date of Last EDR Contact: 03/05/04
Date of Next Scheduled EDR Contact: 06/07/04

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA
Telephone: 202-564-2501

Date of Government Version: 04/13/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 03/22/04
Date of Next Scheduled EDR Contact: 06/21/04

SSTS: Section 7 Tracking Systems
Source: EPA
Telephone: 202-564-5008
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/01
Database Release Frequency: Annually
Date of Last EDR Contact: 04/19/04
Date of Next Scheduled EDR Contact: 07/19/04

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-564-2501
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/13/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 03/22/04
Date of Next Scheduled EDR Contact: 06/21/04

STATE OF ARIZONA ASTM STANDARD RECORDS

SPL: Superfund Program List
Source: Department of Environmental Quality
Telephone: 602-771-4360
The list is representative of the sites and potential sites within the jurisdiction of the Superfund Program Section. It is comprised of the following elements: 1) Water Quality Assurance Revolving Fund Registry Sites; 2) Potential WQARF Registry sites; 3) NPL sites; and 4) Department of Defense sites requiring SPS oversight.

Date of Government Version: 05/23/03
Date Made Active at EDR: 06/26/03
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 06/02/03
Elapsed ASTM days: 24
Date of Last EDR Contact· 03/05/04

SHWS: ZipAcids List
Source: Department of Environmental Quality
Telephone: 602-771-4360
The ACIDS list consists of more than 750 locations subject to investigation under the State Water Quality Assurance Revolving Fund (WQARF) and Federal CERCLA programs. The list is no longer updated by the state.

Date of Government Version: 01/03/00
Date Made Active at EDR: 05/16/00
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 04/11/00
Elapsed ASTM days: 35
Date of Last EDR Contact: 04/19/04

SWF/LF: Directory of Solid Waste Facilities
Source: Department of Environmental Quality
Telephone: 602-771-4132
Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 01/01/04
Date Made Active at EDR: 04/23/04
Database Release Frequency: Annually
Date of Data Arrival at EDR: 03/29/04
Elapsed ASTM days: 25
Date of Last EDR Contact: 03/29/04

LUST: Leaking Underground Storage Tank Listing
Source: Department of Environmental Quality
Telephone: 602-771-4345
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 02/01/04
Date Made Active at EDR: 03/18/04
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 02/25/04
Elapsed ASTM days: 22
Date of Last EDR Contact: 05/11/04

UST: Underground Storage Tank Listing
Source: Department of Environmental Quality
Telephone: 602-771-4345
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 02/01/04
Date Made Active at EDR: 03/15/04
Database Release Frequency: Annually
Date of Data Arrival at EDR: 02/09/04
Elapsed ASTM days: 35
Date of Last EDR Contact: 05/11/04

WQARF: Water Quality Assurance Revolving Fund Sites
Source: Department of Environmental Quality
Telephone: 602-771-4360
Sites which may have an actual or potential impact upon the waters of the state, cause by hazardous substances.
The WQARF program provides matching funds to political subdivisions and other state agencies for clean-up activities.

Date of Government Version: 07/01/03
Date Made Active at EDR: 09/29/03
Database Release Frequency: Annually
Date of Data Arrival at EDR: 08/11/03
Elapsed ASTM days: 49
Date of Last EDR Contact: 03/26/04

INDIAN UST: Underground Storage Tanks on Indian Land
Source: EPA Region 9
Telephone: 415-972-3368

Date of Government Version: 02/25/04
Date Made Active at EDR: 03/18/04
Database Release Frequency: Varies
Date of Data Arrival at EDR: 03/01/04
Elapsed ASTM days: 17
Date of Last EDR Contact: 02/23/04

INDIAN LUST: Leaking Underground Storage Tanks on Indian Land
Source: Environmental Protection Agency
Telephone: 415-972-3372
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/09/04
Date Made Active at EDR: 02/27/04
Database Release Frequency: Varies
Date of Data Arrival at EDR: 02/10/04
Elapsed ASTM days: 17
Date of Last EDR Contact: 01/27/04

VCP: Voluntary Remediation Program Sites
Source: Department of Environmental Quality
Telephone: 602-771-4411
Sites involved in the Voluntary Remediation Program.

Date of Government Version: 02/29/04
Date Made Active at EDR: 04/29/04
Database Release Frequency: Varies
Date of Data Arrival at EDR: 04/16/04
Elapsed ASTM days: 13
Date of Last EDR Contact: 03/10/04

STATE OF ARIZONA ASTM SUPPLEMENTAL RECORDS

AST: List of Aboveground Storage Tanks
Source: Department of Building & Fire Safety
Telephone: 602-364-1003
Aboveground storage tanks that the Dept. of Building & Fire Safety have permitted.

Date of Government Version: 12/31/00
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 04/12/04
Date of Next Scheduled EDR Contact: 07/20/04

SPILLS: Hazardous Material Logbook
Source: Department of Environmental Quality
Telephone: 602-771-4153
Chemical spills and incidents referred to the Emergency Response Unit.

Date of Government Version: 06/30/01
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 03/29/04
Date of Next Scheduled EDR Contact: 06/28/04

DOD: Department of Defense Sites
Source: Department of Environmental Quality
Telephone: 602-771-4360
These sites are federal facilities that are either being assessed for potential contamination, or have active remediation taking place on them.

Date of Government Version: 07/01/03
Database Release Frequency: Annually

Date of Last EDR Contact: 03/26/04
Date of Next Scheduled EDR Contact: 06/21/04

WWFAC: Waste Water Treatment Facilities
Source: Department of Environmental Quality
Telephone: 602-771-4623
Statewide list of waste water treatment facilities.

Date of Government Version: 07/01/03
Database Release Frequency: Varies

Date of Last EDR Contact: 02/23/04
Date of Next Scheduled EDR Contact: 05/24/04

AQUIFER: Waste Water Treatment Facilities
Source: Department of Environmental Quality
Telephone: 602-771-4623
Waste Water Treatment Facilities with APP (Aquifer Protection Permits.)

Date of Government Version: 02/25/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/26/04
Date of Next Scheduled EDR Contact: 07/26/04

DRY WELLS: Drywell Registration
Source: Department of Environmental Quality
Telephone: 602-771-4686
A drywell is a bored, drilled, or driven shaft or hole whose depth is greater than its width and is designed and constructed specifically for the disposal of storm water.

Date of Government Version: 03/01/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/22/04
Date of Next Scheduled EDR Contact: 06/21/04

AZ AIRS: Arizona Airs Database
Source: Department of Environmental Quality
Telephone: 602-771-2344
Arizona major (has the potential to emit over 100 tons of criteria pollutant) and minor (below 100 tons) sources.

Date of Government Version: 02/17/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/03/04
Date of Next Scheduled EDR Contact: 08/02/04

EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

BROWNFIELDS DATABASES

AUL: DEUR Database
Source: Department of Environmental Quality
Telephone: 602-771-4398
Activity and use limitations include both engineering controls and institutional controls. DEUR and VEMUR sites.
DEUR: Declaration of Environmental Use Restriction. A restrictive land use covenant that is required when a property owner elects to use an institutional (i.e., administrative) control or engineering (i.e., physical) control as a means to meet remediation goals. The DEUR runs with and burdens the land, and requires maintenance of any institutional or engineering controls. VEMUR: Voluntary Environmental Mitigation Use Restriction. A restrictive land use covenant that, prior to July 18, 2000, was required when a property owner elected to remediate the property to non-residential uses. Effective July 18, 2000, the DEUR replaced the VEMUR as a restrictive use covenant.

Date of Government Version: 04/19/04
Database Release Frequency: Varies

Date of Last EDR Contact: 04/20/04
Date of Next Scheduled EDR Contact: 07/19/04

US BROWNFIELDS: A Listing of Brownfields Sites
Source: Environmental Protection Agency
Telephone: 202-566-2777
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: N/A
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

VCP: Voluntary Remediation Program Sites
Source: Department of Environmental Quality
Telephone: 602-771-4411
Sites involved in the Voluntary Remediation Program.

Date of Government Version: 02/29/04
Database Release Frequency: Varies

Date of Last EDR Contact: 03/10/04
Date of Next Scheduled EDR Contact: 07/19/04

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Facilities & Group Homes
Source: Department of Health Services
Telephone: 602-674-4220

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

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GEOCHECK®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

FLAGSTAFF PULLIAM AIRPORT
SHAMRELL BLVD
FLAGSTAFF, AZ 86001

TARGET PROPERTY COORDINATES

Latitude (North):	35.138500 - 35' 8' 18.6"
Longitude (West):	111.671204 - 111' 40' 16.3"
Universal Tranverse Mercator:	Zone 12
UTM X (Meters):	438853.4
UTM Y (Meters):	3888410.5
Elevation:	7002 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

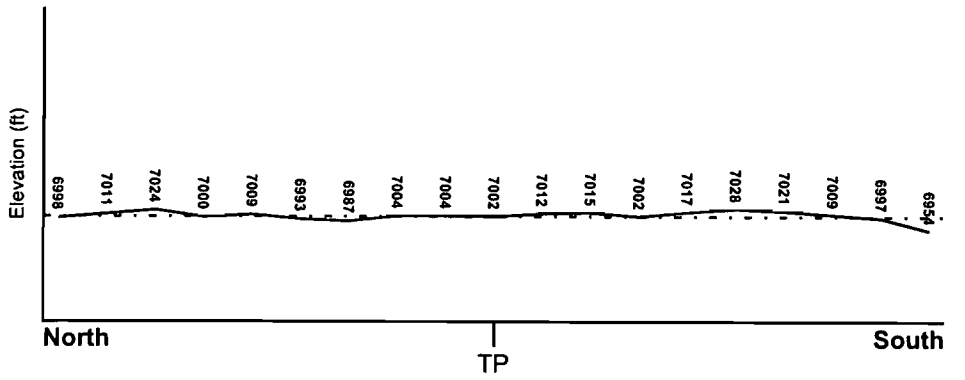
TOPOGRAPHIC INFORMATION

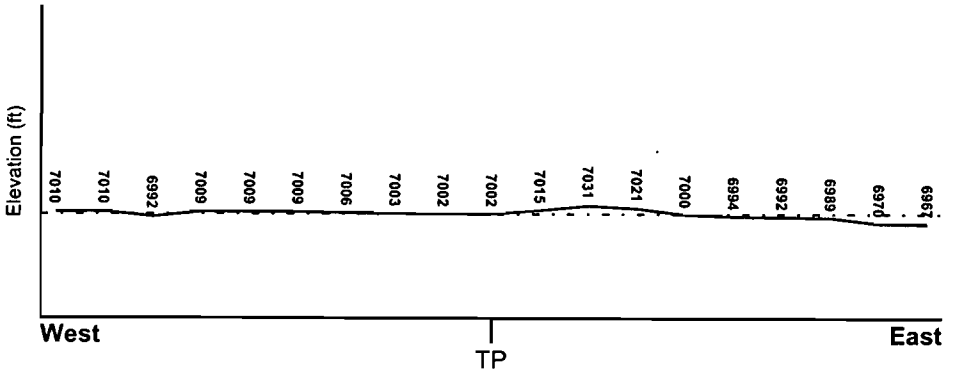
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map:	35111-B6 FLAGSTAFF WEST, AZ
General Topographic Gradient:	General WNW
Source:	USGS 7.5 min quad index

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 7002 ft.

0 1/2 1 Miles

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
COCONINO, AZ	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 0400200016B

Additional Panels in search area:
0400193568B
0400200017B
0400193775B
0400200021B
0400200020B

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
FLAGSTAFF WEST	Not Available

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA All rights reserved All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT		GEOLOGIC AGE IDENTIFICATION	
Era:	Paleozoic	Category:	Stratifed Sequence
System:	Permian		
Series:	Upper part of Leonardian Series		
Code:	P2b *(decoded above as Era, System & Series)*		

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	ABREU
Soil Surface Texture:	gravelly - sandy loam
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	MODERATE
Depth to Bedrock Min:	> 40 inches
Depth to Bedrock Max:	> 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	15 inches	gravelly - sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 6.00 Min: 2.00	Max: 6.50 Min: 5.60
2	15 inches	43 inches	very gravelly - clay loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel	Max: 0.60 Min: 0.20	Max: 6.50 Min: 5.60
3	43 inches	47 inches	unweathered bedrock	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: very gravelly - sandy loam

Surficial Soil Types: very gravelly - sandy loam

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: No Other Soil Types

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	USGS0033393	1/2 - 1 Mile WSW
A4	USGS0033394	1/2 - 1 Mile WSW
B5	USGS0033456	1/2 - 1 Mile East

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

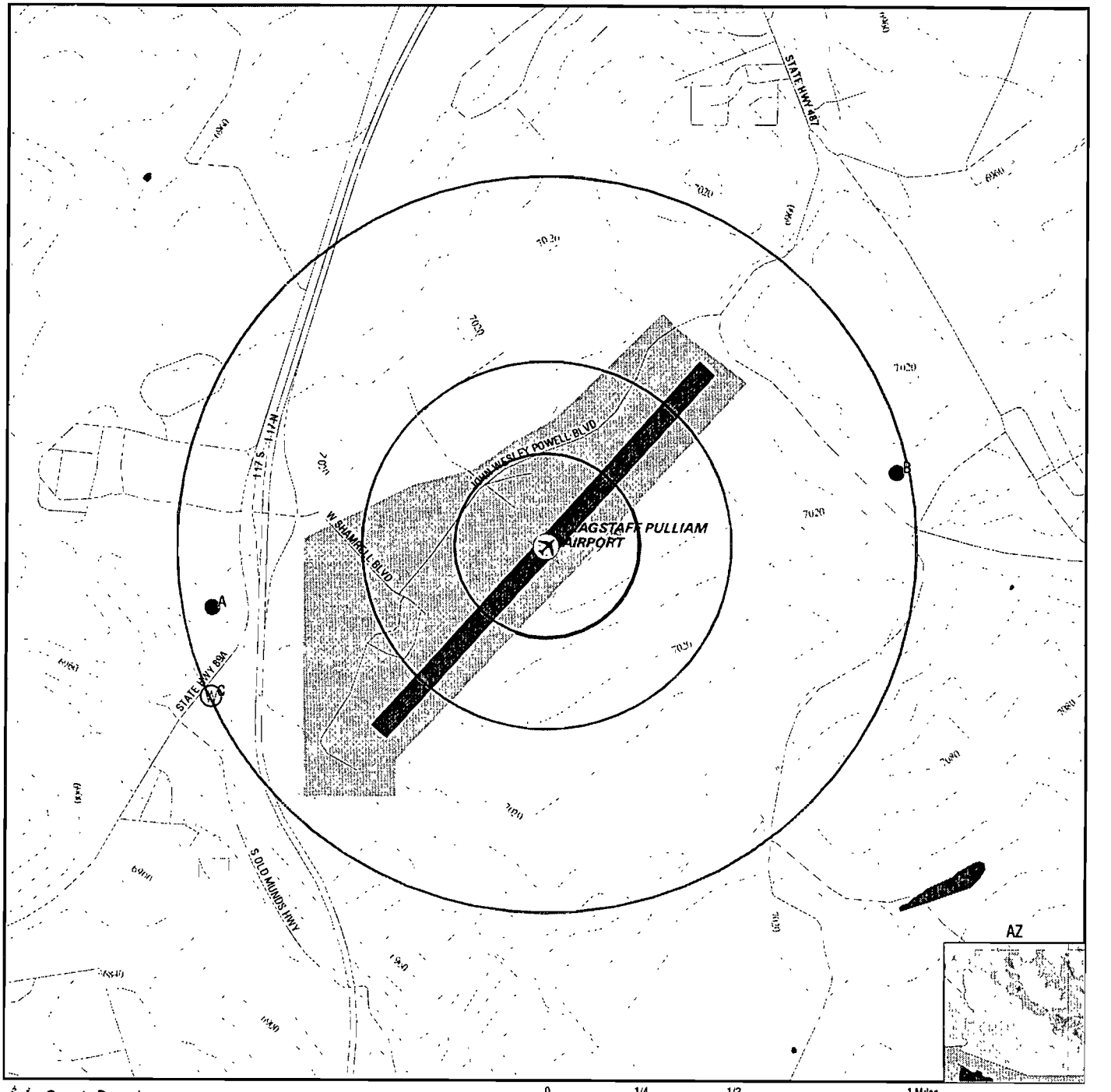
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	AZWR535566	1/2 - 1 Mile West
A3	AZWR509215	1/2 - 1 Mile West
B6	AZWR552187	1/2 - 1 Mile ENE
C7	AZWR650297	1/2 - 1 Mile WSW
C8	AZWR510545	1/2 - 1 Mile WSW

PHYSICAL SETTING SOURCE MAP - 1207788.2s



0 1/4 1/2 1 Miles

- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data

TARGET PROPERTY:	Flagstaff Pulliam Airport	CUSTOMER:	Michael Baker Jr., Inc.
ADDRESS:	Shamrell Blvd	CONTACT:	Brian Steffes
CITY/STATE/ZIP:	Flagstaff AZ 86001	INQUIRY #:	1207788.2s
LAT/LONG:	35.1385 / 111.6712	DATE:	June 09, 2004 12:16 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
A1 WSW 1/2 - 1 Mile Lower		**FED USGS**	**USGS0033393**

Agency:	USGS	Site ID:	350809111411001
Site Name:	A-20-07 07AAA2		
Dec. Latitude:	35.13585		
Dec. Longitude:	-111.68683		
Coord Sys:	NAD83		
State:	AZ		
County:	Coconino County		
Altitude:	6970.		
Hydrologic code:	15060202		
Topographic:	Hillside (slope)		
Site Type:	Ground-water other than Spring		
Const Date:	19920825	Inven Date:	Not Reported
Well Type:	Single well, other than collector or Ranney type		
Primary Aquifer:	310CCNN		
Aquifer type:	Unconfined multiple aquifers		
Well depth:	1275		
Hole depth:	1275	Source:	driller
Project no:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1992-10-19	1063	

A2 West 1/2 - 1 Mile Lower		**AZ WELLS**	**AZWR535566**

Registryid:	535566	Program:	55
County:	COCONINO	Watershed:	VERDE RIVER
Basin:	VERDE RIVER	Subbasin:	VERDE VALLEY
Township:	20	Northsouth:	N
Range:	7	Eastwest:	E
Section:	7	Acre160:	NE
Acre40:	NE	Acre10:	NE
Utmx:	437458.8	Utmy:	3888164.3
Welltype:	EXEMPT	Welluse1:	WATER PRODUCTION
Welluse2:	Not Reported	Wateruse1:	DOMESTIC
Wateruse2:	Not Reported	Wateruse3:	Not Reported
Approved:	Not Reported	Installed:	10/19/1992 00:00:00
Driller:	336	Welldepth:	1275
Waterlevel:	1063	Casingtype:	STEEL - PERFORATED OR SLOTTED CASING
Casingdeep:	1275	Casingwide:	8
Pumptype:	SUBMERSIBLE	Pumppower:	ELECTRIC MOTOR 1 - 5 HP
Pumprate:	10	Testrate:	10
Drawdown:	12	Drilllog:	X

Lastname:	TYRELL, GALE,	Firstname:	Not Reported
Company:	Not Reported		
Address:	PO BOX 1909		
City:	FLAGSTAFF	State:	AZ
Zipcode:	86002	Cancelled:	Not Reported

Driller:	336
Company:	FLAGSTAFF WELL AND SUPPLY COMPANY, INC.
Address:	P.O. BOX 22280 FLAGSTAFF, AZ 86002

A3
West
1/2 - 1 Mile
Lower

AZ WELLS **AZWR509215**

Registryid:	509215	Program:	55
County:	COCONINO	Watershed:	VERDE RIVER
Basin:	VERDE RIVER	Subbasin:	VERDE VALLEY
Township:	20	Northsouth:	N
Range:	7	Eastwest:	E
Section:	7	Acre160:	NE
Acre40:	NE	Acre10:	NE
Utmx:	437458.8	Utmy:	3888164.3
Welltype:	EXEMPT	Welluse1:	WATER PRODUCTION
Welluse2:	Not Reported	Wateruse1:	DOMESTIC
Wateruse2:	Not Reported	Wateruse3:	Not Reported
Approved:	Not Reported	Installed:	05/21/1985 00:00:00
Driller:	336	Welldepth:	1005
Waterlevel:	941	Casingtype:	STEEL - PERFORATED OR SLOTTED CASING
Casingdeep:	50	Casingwide:	9
Pumptype:	SUBMERSIBLE	Pumppower:	ELECTRIC MOTOR 1 - 5 HP
Pumprate:	7	Testrate:	5
Drawdown:	0	Drilllog:	X
Lastname:	KIMMERLE,D	Firstname:	Not Reported
Company:	Not Reported		
Address:	1151 W DUNLAP AVE		
City:	PHOENIX	State:	AZ
Zipcode:	85021	Cancelled:	Not Reported

Driller:	336
Company:	FLAGSTAFF WELL AND SUPPLY COMPANY, INC.
Address:	P.O. BOX 22280 FLAGSTAFF, AZ 86002

A4
WSW
1/2 - 1 Mile
Lower

FED USGS **USGS0033394**

Agency:	USGS	Site ID:	350809111411201
Site Name:	A-20-07 07AAA1		
Dec. Latitude:	35.13585		
Dec. Longitude:	-111.68738		
Coord Sys:	NAD83		
State:	AZ		
County:	Coconino County		
Altitude:	6980.		
Hydrologic code:	15060202		
Topographic:	Not Reported		
Site Type:	Ground-water other than Spring		
Const Date:	19850420	Inven Date:	Not Reported
Well Type:	Single well, other than collector or Ranney type		
Primary Aquifer:	310CCNN		
Aquifer type:	Unconfined multiple aquifers		
Well depth:	1005		
Hole depth:	1005	Source:	driller
Project no:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1985-05-21	941	

B5
East
1/2 - 1 Mile
Lower

FED USGS **USGS0033456**

Agency:	USGS	Site ID:	350828111391501
Site Name:	A-20-07 04DAC		
Dec. Latitude:	35.14112		
Dec. Longitude:	-111.65488		
Coord Sys:	NAD83		
State:	AZ		
County:	Coconino County		
Altitude:	6960.		
Hydrologic code:	15020015		
Topographic:	Valley flat		
Site Type:	Ground-water other than Spring		
Const Date:	19951027	Inven Date:	19951031
Well Type:	Single well, other than collector or Ranney type		
Primary Aquifer:	310SUPI		
Aquifer type:	Unconfined multiple aquifers		
Well depth:	1590.		
Hole depth:	1590.	Source:	reporting agency (generally USGS)
Project no:	Not Reported		

Ground-water levels, Number of Measurements: 34

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2003-01-28	823.3		2002-09-25	823.6	
2002-08-12	823.5		2002-05-09	823.9	
2002-01-14	824.2		2001-10-26	824.6	
2001-08-23	824.6		2001-05-23	825.7	
2001-02-23	824.6		2000-12-12	824.9	
2000-09-18	826.1		2000-06-28	826.0	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2000-03-08	826.2		1999-09-28	826.9	
1999-07-12	827.0		1999-02-17	827.0	
1998-11-12	827.1		1998-10-02	827.0	
1998-06-19	827.4		1998-03-11	827.4	
1998-01-15	827.4		1997-08-07	828.2	
1996-12-19	824.6		1996-11-20	826.7	
1996-11-15	818.1		1996-11-13	819.2	
1996-11-12	819.1		1996-11-11	820.6	
1996-11-05	821.2		1996-10-23	822.6	
1995-11-08	830.3		1995-11-01	836.2	
1995-10-31	950.0		1995-10-27	829	

B6
ENE
1/2 - 1 Mile
Lower

AZ WELLS **AZWR552187**

Registryid:	552187	Program:	55
County:	COCONINO	Watershed:	LITTLE COLORADO RIVER
Basin:	LITTLE COLORADO RIVER PLATEAU	Subbasin:	Not Reported
Township:	20	Northsouth:	N
Range:	7	Eastwest:	E
Section:	4	Acre160:	SE
Acre40:	NE	Acre10:	SW
Utmx:	440478.2	Utmy:	3888756.1
Welltype:	PIEZOMETER	Welluse1:	PIEZOMETER
Welluse2:	Not Reported	Wateruse1:	MONITORING
Wateruse2:	Not Reported	Wateruse3:	Not Reported
Approved:	Not Reported	Installed:	09/01/1995 00:00:00
Driller:	571	Welldepth:	1580
Waterlevel:	850	Casingtype:	OTHER - BLACK STEEL - IRON - SEAMLESS
Casingdeep:	20	Casingwide:	8
Pumptype:	NONE	Pumppower:	Not Reported
Pumprate:	0	Testrate:	0
Drawdown:	0	Drilllog:	X
Lastname:	FLAGSTAFF, CITY OF,	Firstname:	Not Reported
Company:	Not Reported		
Address:	211 W ASPEN AVE		
City:	FLAGSTAFF	State:	AZ
Zipcode:	86001	Cancelled:	Not Reported

Driller:	571
Company:	BOB BEEMAN DRILLING COMPANY
Address:	P.O. BOX 788 MOAB, UT 84532

C7
WSW
1/2 - 1 Mile
Lower

AZ WELLS **AZWR650297**

Registryid:	650297	Program:	55
County:	COCONINO	Watershed:	VERDE RIVER
Basin:	VERDE RIVER	Subbasin:	VERDE VALLEY
Township:	20	Northsouth:	N
Range:	7	Eastwest:	E
Section:	7	Acre160:	NE
Acre40:	SE	Acre10:	NE
Utmx:	437457.8	Utmy:	3887754.4
Welltype:	EXEMPT	Welluse1:	WATER PRODUCTION
Welluse2:	Not Reported	Wateruse1:	DOMESTIC
Wateruse2:	Not Reported	Wateruse3:	Not Reported
Approved:	Not Reported	Installed:	Not Reported
Driller:	0	Welldepth:	1000
Waterlevel:	990	Casingtype:	STEEL - PERFORATED OR SLOTTED CASING
Casingdeep:	1000	Casingwide:	4
Pumptype:	Not Reported	Pumppower:	Not Reported
Pumprate:	12	Testrate:	990
Drawdown:	0	Drilllog:	Not Reported
Lastname:	RICH,D	Firstname:	Not Reported
Company:	Not Reported		
Address:	RT 8 OAK CREEK RD		
City:	FLAGSTAFF	State:	AZ
Zipcode:	86001	Cancelled:	Not Reported

Driller:	0
Company:	NO DRILLER SPECIFIED
Address:	Not Reported
	AZ

C8
WSW
1/2 - 1 Mile
Lower

AZ WELLS **AZWR510545**

Registryid:	510545	Program:	55
County:	COCONINO	Watershed:	VERDE RIVER
Basin:	VERDE RIVER	Subbasin:	VERDE VALLEY
Township:	20	Northsouth:	N
Range:	7	Eastwest:	E
Section:	7	Acre160:	NE
Acre40:	SE	Acre10:	NE
Utmx:	437457.8	Utmy:	3887754.4
Welltype:	EXEMPT	Welluse1:	WATER PRODUCTION
Welluse2:	Not Reported	Wateruse1:	DOMESTIC
Wateruse2:	Not Reported	Wateruse3:	Not Reported
Approved:	Not Reported	Installed:	Not Reported
Driller:	336	Welldepth:	0
Waterlevel:	0	Casingtype:	Not Reported
Casingdeep:	0	Casingwide:	0
Pumptype:	Not Reported	Pumppower:	Not Reported
Pumprate:	0	Testrate:	0
Drawdown:	0	Drilllog:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Lastname:	WILSON,J J	Firstname:	Not Reported
Company:	Not Reported		
Address:	1901 W 17TH ST		
City:	YUMA	State:	AZ
Zipcode:	85364	Cancelled:	Y

Driller:	336
Company:	FLAGSTAFF WELL AND SUPPLY COMPANY, INC.
Address:	P.O. BOX 22280 FLAGSTAFF, AZ 86002

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: AZ Radon

Radon Test Results (pCi/L)

Zip	City	Result (pCi/L)
86001	FLAGSTAFF	< 0.50
86001	FLAGSTAFF	= 0.60
86001	FLAGSTAFF	= 0.70
86001	FLAGSTAFF	= 0.80
86001	FLAGSTAFF	= 0.90
86001	FLAGSTAFF	= 1.00
86001	FLAGSTAFF	= 1.10
86001	FLAGSTAFF	= 1.20
86001	FLAGSTAFF	= 1.30
86001	FLAGSTAFF	= 1.40
86001	FLAGSTAFF	= 1.60
86001	FLAGSTAFF	= 1.70
86001	FLAGSTAFF	= 1.80
86001	FLAGSTAFF	= 1 90
86001	FLAGSTAFF	= 2.00
86001	FLAGSTAFF	= 2.10
86001	FLAGSTAFF	= 2.20
86001	FLAGSTAFF	= 2.30
86001	FLAGSTAFF	= 2.50
86001	FLAGSTAFF	= 2.60
86001	FLAGSTAFF	= 3.00
86001	FLAGSTAFF	= 3 20
86001	FLAGSTAFF	= 3.30
86001	FLAGSTAFF	= 3.50
86001	FLAGSTAFF	= 3.60
86001	FLAGSTAFF	= 3.70
86001	FLAGSTAFF	= 3.80
86001	FLAGSTAFF	= 4.00
86001	FLAGSTAFF	= 4.10
86001	FLAGSTAFF	= 4.40
86001	FLAGSTAFF	= 4.80
86001	FLAGSTAFF	= 4.90
86001	FLAGSTAFF	= 5.40
86001	FLAGSTAFF	= 6.20
86001	FLAGSTAFF	= 6.30
86001	FLAGSTAFF	= 6.40
86001	FLAGSTAFF	= 7.10
86001	FLAGSTAFF	= 7.70
86001	FLAGSTAFF	= 7.80
86001	FLAGSTAFF	= 8.30
86001	FLAGSTAFF	= 9.60
86001	FLAGSTAFF	= 12.20
86001	FLAGSTAFF	= 12.90
86001	FLAGSTAFF	= 17.20

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for COCONINO County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 86001

Number of sites tested: 23

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	3.370 pCi/L	78%	22%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STATE RECORDS

Arizona Well Registration Database
Source: Department of Water Resources
Telephone: 602-771-1586
Contains information provided to ADWR's Operations Division by well drillers and/or owners.

RADON

State Database: AZ Radon
Source: Arizona Radiation Regulatory Agency
Telephone: 602-255-4845
State Indoor Radon Survey

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

FLAGSTAFF
PULLIAM AIRPORT

Appendix F

BIOLOGICAL ASSESSMENT AND NOXIOUS WEED ASSESSMENT

City of Flagstaff

211 West Aspen
Flagstaff, AZ 86001
Phone 520/779-7650

Biological Assessment

Pulliam Airport Master Plan Improvements
Runway Extension

Prepared by:
AZtec Research & Consulting, LLC
2141 E. Skyline
Flagstaff, AZ 86004

Submitted to:
Michael Baker Jr., Inc.
1313 E. Osborne, Ste. 150
Phoenix, AZ 85014

Prepared for:
City of Flagstaff
211 W. Aspen
Flagstaff, AZ 86001

October 2004 **Project No. 24547**

INTRODUCTION

Pulliam Airport sits on approximately 670 acres located about four miles south of Flagstaff, Arizona. The airport has a single runway (Runway 3-21) that is 150 feet-wide and 6,999 feet-long. The airport is surrounded by land managed by the Coconino National Forest and a portion of the airport is operated under an avigation easement issued by the Forest Service to the City of Flagstaff in 1956. The avigation easement is a land use policy adopted to preserve the public investment in the airport facility and operations by protecting the airport from continued encroachment from development in areas surrounding the airport. The avigation easement includes approximately one square mile radius from all sides of the airport property. The property owners within the easement area grant to the City a perpetual and exclusive easement to utilize the airspace 350 feet or higher above the property for avigation purposes. The easement further allows aircraft the right to conduct all flight operations that are reasonable and necessary within the airspace including emitting light and noise, and discharge of dust, exhaust, fuel, and lubricant particles. Additionally, property owners acknowledge that noise and vibrations may occur on or near their property (Flagstaff City Council Ordinance 1867 1995).

This report presents the results of surveys for species of concern identified by the U.S. Forest Service, U.S. Fish and Wildlife Service, and the State of Arizona Game and Fish Department. Surveys were completed on approximately 315 acres associated with the runway extension, as part of the airport master plan improvement projects proposed by the City of Flagstaff.

The U.S. Fish and Wildlife Service identified all species occurring in Coconino County—many of which do not have preferred habitat within the project areas. The Forest Service identified four plant species known to grow in the Flagstaff area that could potentially grow on or near the project areas. These are: Flagstaff pennyroyal (*Hedeoma diffusum*), Flagstaff beardtongue (*Penstemon nudiflorus*), Rusby's milkvetch (*Astragalus rusbyi*), and Arizona sneezeweed (*Helenium arizonicum*). In addition, the Forest Service requested a raptor nest tree survey for the project areas plus a ¼ mile buffer zone. The State of Arizona Game and Fish Department also identified Flagstaff pennyroyal and the Northern goshawk (*Accipiter gentilis*), as well as Allen's big-eared bat (*Idionycteris phyllotis*) and Mogollon columbine (*Aquilegia desertorum*).

PROJECT DESCRIPTION

Flagstaff Pulliam Airport (FLG) would like to accommodate regional jets that cannot currently fully utilize the airport because of Runway 3-21's length limitations. To accommodate this need, the City of Flagstaff is proposing a project that would involve the extension of Runway 3-21 from 6,999 feet to 8,800 feet. The proposed project includes:

- An 1,801-foot extension to Runway 21 with a corresponding taxiway extension.
- Relocation of the airport's security fence.
- Acquisition of easement area from the U.S. Forest Service to accommodate the Runway Protection Zones associated with the proposed project. Relocation of residences or businesses is not anticipated with the proposed project.
- Relocation of a service road that is located on airport property.
- Relocation of navigational aids, including the glide slope equipment and shelter and distance marking equipment.
- High Intensity Runway Edge Lighting and Medium Intensity Taxiway Edge Lighting.
- A displaced threshold of 1,801 feet for landing, based on existing obstructions that may require a change in approach procedures, as additional runway length will be available for landing.
- Full use of the Runway 3-21 for take off that may require changes in departure procedures, as additional runway length will be available for take off.

PROJECT LOCATION

Surveys for species of concern associated with the proposed project involved investigating two separate parcels surrounding the airport (Figure 1). A third parcel south of the existing runway is part of the project area, but was previously surveyed for species of concern during extension of the Emergency Runway Safety Area project in 2001. The 2001 Biological Report found that no individuals or signs of individuals of any threatened or endangered species were observed during field surveys. The area does not contain any critical habitat for any listed or proposed species protected under the Endangered Species Act (Aztec Research & Consulting 2001). It was not resurveyed for this project.

The legal descriptions of the surveyed parcels are (Gila and Salt River Meridian)

1. North parcel: Township 20N, Range 7E, portions of the NW ¼, and NE ¼, of Section 4
   Township 21N, Range 7E, portions of the SW ¼, and EE ¼, of Section 33
2. SE parcel: Township 21N, Range 7E, portions of NE ¼, of Sec. 8 and NW ¼ of Sec. 9

The parcel to the southeast is owned entirely by the City of Flagstaff. Approximately ½ of the parcel to the north is City owned. The U.S. Department of Agriculture, Coconino National Forest, Mormon Lake Ranger District manages the other portion of this parcel. They have granted an avigation easement to the City of Flagstaff for this parcel for airport operations. This portion of the parcel is also part of the Yavapai Land Exchange proposal currently being considered by Congress. If approved by Congress, the parcel would become privately owned, at which time the City could purchase it for airport expansion.

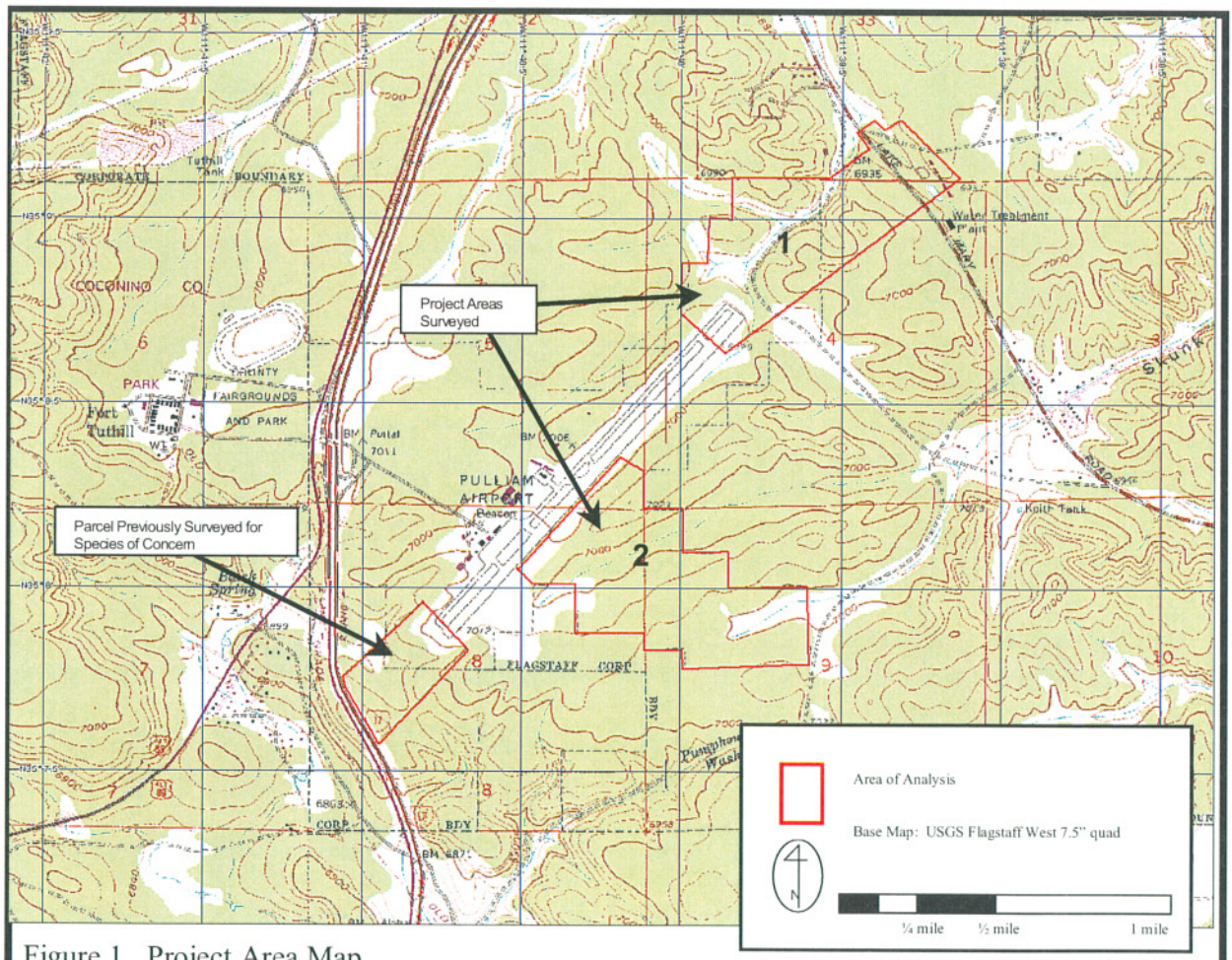

Figure 1. Project Area Map

PURPOSE OF THE PROPOSED PROJECT

The purpose of the proposed project is to allow the airport to continue to serve the aviation needs of the region. Specifically, the proposed improvements would accomplish the following:

* **Accommodate the transition of the airport's primary airline from the turboprops currently in use to the operation of regional jets without weight restrictions on departure.** Analysis conducted for the Master Plan Update indicated the existing runway length is not adequate for FLG to accommodate regional jets without operating constraints. While relatively efficient on a runway length of 7,000 feet or less at lower elevations, most regional jets have been found to require significantly more runway length at higher elevation airports such as FLG.

* **Accommodate the demand for longer haul flights by business aircraft that are currently restricted in weight and, therefore, range.** The Master Plan Update analysis indicates that FLG's current runway length is not sufficient for existing longer haul corporate jets to operate without weight restrictions. The airport serves over 2,100 corporate jet operations annually, yet the existing 7,000-foot runway does not meet the requirements for the 75 percent family of corporate jets operating at 60 percent useful load. Compounded by the high elevation of the airport and high summer temperatures, business jets are forced to take-off with less than a full fuel load, necessitating an intermediate stop on long-haul flights.

* **Enhance the operational safety and efficiency of aircraft using the airport.**

NEED FOR THE PROPOSED PROJECT

The need for the airport enhancements are driven by a number of factors including:

* The Airport's primary commercial airline service, Mesa Airlines, plans to operate regional jets by 2007, a more efficient aircraft type that requires a longer runway length to take off at full load with the high altitude and temperatures at FLG.
* The Airport's need to fulfill its role, as defined in NPIAS, of providing commercial airline service in northern Arizona.
* Demand for aircraft with the capability for longer-range flights increasing efficiency to enable greater business travel opportunity and efficiency.
* Meet current FAA requirements and guidance for the runway's length and the runway safety area to accommodate regional jets.

NOTE: A more detailed description of the Purpose and Need for the Proposed Action can be found in Chapter 1 of the Draft Environmental Assessment dated September 2004.

Table 1 summarizes FLG's existing and forecasted operations by type of aircraft. More information is contained in Appendix of the Draft Environmental Assessment.

Table 1
FLG's Existing and Forecasted Operations by Type of Aircraft

AIRCRAFT TYPE		*EXISTING OPERATIONS 2002*	*FORECAST ANNUAL OPERATIONS 2008 Short Term*
Reference Code	*Example Aircraft*		
A, B-I	Beech Bonanza; Beech King Air; Cessna 421, Cessna Citation I	48,253	55,950
A, B-II	Super King Air 200; Cessna 441	5,762	6,800
A, B-III	DHC Dash 8, DC-3	3,414	150
C-I	Lear 25,35, 55	1,450	1,600
C-II	Gulfstream I, Canadair 600; Canadair Regional Jet	330	5,550
C-III	Boeing Business Jet; B 727-200; B 737-800; MD-87,90	37	100
D-I	Learjet 35A/36A	104	150
D-II	Gulfstream IV	106	150
D-III	TU-134A; BAE RJ100	22	50
Total		59,478	70,500

Source. 2004 Flagstaff Pulliam Airport Master Plan Update.
Note: Operations based upon adjusted ATCT count.

According to the analysis contained in the *2004 Master Plan Update*, more aircraft in each reference code listed in Table 1 can be expected in the future. From the table, aircraft in reference codes C-II would reach the 500 annual operations, the threshold for determining the airport's critical aircraft, by 2008. This can be attributed to Mesa Airline's utilization of Canadair Regional Jets, along with the potential for Sky West to provide commercial service using regional jets (should this service become available) and to increased corporate jet activity.

Specifically, the runway length analysis from the *2004 Master Plan Update* indicates the existing runway length is not adequate, as it does not meet the requirements for 75 percent of the corporate jets operating at 60 percent load. In addition, the existing runway length is not adequate for the airport to accommodate daily schedule flights by regional jets, such as the Canadiar Regional Jet. Based on airport data, runway data, and runway lengths recommended for airport design, the recommended runway length to allow a regional jet, such as the Canadair Regional Jet, to take off at full fuel load is 8,800 feet. This length will best meet the needs of FLG users, and allow the airport's only scheduled airline service to continue to operate.

SPECIES IDENTIFICATION

The following species were identified by the U.S. Fish and Wildlife Service, U.S. Forest Service, and the State of Arizona Game and Fish Department **and** have the potential to occur in the area based on the existence of suitable or potential habitat.

Table 2
Species of Concern with Potential to be Affected by Proposed Runway Extension

Common Name	*Scientific Name*	*Federal Status*	*State Status*	*Forest Service Status*
Mexican Spotted Owl	*Strix occidentalis lucida*	T	WSC	SEN
Bald Eagle	*Haliaeetus leucocephalus*	T	WSC	
Northern Goshawk	*Accipiter gentilis*	SC	WSC	SEN
Allen's Big-eared Bat	*Idionycteris phyllotis*	SC		
Flagstaff Pennyroyal	*Hedeoma diffusum*		SR	SEN
Mogollon Columbine	*Aquilegia desertorum*		SR	
Flagstaff Beardtongue	*Penstemon nudiflorus*			SEN
Rusby's Milkvetch	*Astragalus rusbyi*			SEN
Arizona Sneezeweed	*Helenium arizonicum*			SEN

T = Threatened, SC = Species of Concern, WSC = Wildlife of Special Concern, SEN = Sensitive Species, SR = Salvage Restricted Species

AFFECTED HABITAT

This section provides a general description of the project areas, as well as a description of preferred habitat of each species of concern and briefly describes if the project areas involved in this analysis provide suitable or potential habitat. The following section, *Analysis of Effects*, provides a more detailed description of the location of suitable or potential habitat and analysis of effects within the discussion of each species of concern.

Terrain within the project areas is flat to gently sloping. The parcel to the north has been disturbed by previous airport activities. The sawtooth parcel to the southeast has several roads and dirt tracks criss-crossing through the parcel, but is relatively undisturbed.

Soils in the project area are of a silty texture derived from Kaibab limestone. Some limestone cobbles and pebbles exist on the soil surface naturally and other rocks and boulders have been spilled into the area probably from past construction activities.

Vegetation within the airport fencing is dominated by herbaceous species such as yellow sweet clover (*Melilotus officinalis*), white clover (*M. alba*), scarlet gaura (*Gaura coccinea*), and sunflower (*Helianthus annuus).* The latter is a native plant while the two clovers are non-natives. Ponderosa pine trees (*Pinus ponderosa*) are the most common tree and grow in nearly pure stands outside the airport fencing and Runway Safety Area/Protection Zone. These stands appear to be last harvested in the early decades of the 20th Century and have regenerated as dense, stunted trees 60 to 80 feet tall and up to 80 years old. To the east of the airport fencing, the canopy is nearly complete, except for infrequent openings in a few drainages that support a mix of native grasses. A heavy forest litter has accumulated, with little or no herbaceous cover in the denser stands outside the airport fencing.

Federally Listed Species

Mexican Spotted Owl (*Strix occidentalis lucida*) – The Mexican spotted owl (spotted owl) ranges from parts of central Colorado and Utah; south through Arizona, New Mexico and west Texas; then south through Mexico to the states of Michoacan and Puebla (USFWS 1995). Spotted owls inhabit canyons containing diverse habitats. Quality habitat is dependent upon slope, aspect, elevation, and degree of rockiness. Spotted owls tend to prefer the coolest and least disturbed areas available within the forest community. Components that are usually found in habitats occupied by spotted owls include a high degree of stand structure, a hardwood component, tree decadence in the form of broken tops and mistletoe infestation, a mixed conifer component in pine or rock canyon areas, dead and down logs of large size, remnant old growth, and a cool microclimate. In the large, deep rock canyon habitats, the owls often inhabit hanging canyons or narrow, steep-sided canyons that are less accessible to humans or livestock.

On the Coconino National Forest, the Mexican spotted owl occupies mixed conifer and ponderosa pine/Gambel oak vegetation types, usually characterized by high canopy closure, high stem density, multi-layered canopies within the stand, numerous snags, and downed woody material. The owls occupy mixed conifer habitat predominately within canyons such as Walnut Canyon.

Spotted owls usually nest in trees or cavities in cliffs. Tree nests can be on platforms such as old squirrel nests or other raptor nests, in cavities formed by broken off branches or tops and on witches brooms formed by dwarf mistletoe (*Arceuthobium* spp.). Nests in the rock canyon areas are usually in cavities in the rocks, caves, or sometimes even in archaeological ruins. The breeding season occurs from March 1 through August 31.

The diet of the spotted owl varies depending on location and habitat. Generally it consists of small mammals such as deer mice (*Peromyscus maniculatus*), voles (*Microtus* spp.), pocket gophers (*Thomomys* spp.), ground squirrels (*Spermophilus* spp.), and woodrats (*Neotoma* spp.). Woodrats are the most common and important prey item range wide, as measured in frequency in the owls diet and biomass consumed (Ganey and Balda 1985, Johnson and Johnson 1985). Other animals that may occasionally be consumed include small birds (Passeriformes), lizards (*Sceloporus* spp.), bats (Chiroptera), beetles (Coleoptera), and cottontail rabbits (*Sylvilagus* spp.).

The Forest Service has completed several years of surveys for the Mexican spotted owl around the Pulliam Airport property. The closest designated management area for Mexican spotted owl is over 3 miles southeast of the airport. Walnut Canyon also provides Protected Activity Centers (PACs) for 4 breeding pairs of Mexican spotted owls. The flight paths of aircraft landing or taking off from Pulliam Airport have the potential to fly over the PACs at Walnut Canyon.

Although Mexican spotted owls have not been found during the several years of survey and monitoring that the Forest Service has completed around Pulliam Airport, suitable nesting and foraging habitat exists within the ponderosa pine forested area that is found on the sawtooth parcel and the north parcel beyond the wildlife fence around the airport property.

Bald Eagle (*Haliaeetus leucocephalus*) – The adult bald eagle is identified by a white head and tail. The immature eagle has a dusky head and tail with a dark bill. Bald eagles are known to nest along the Verde, Salt, and Bill Williams rivers in snags or mature trees or on cliff ledges (AGFD 1988). The eagle nests in the forks of tall trees and cliffs.

Bald eagles are primarily winter visitors to the Coconino National Forest occupying all habitat types and elevations. Wintering eagles arrive in the fall, usually late October or early November, and leave in early to mid-April. They feed on fish, waterfowl, terrestrial vertebrates, and carrion. Eagles are often seen perched in trees or snags near water or next to roadways where they feed on road-killed animals. At night, small groups (usually 2 to 12) or individual eagles roost in clumps of large trees in protected locations such as drainages and hillsides. Eagles usually roost adjacent to or very near food sources.

Bald eagles are known to winter around Lake Mary and Mormon Lake southeast of Flagstaff (USFWS 1991) and are frequently sighted along the I-17 corridor. No significant cliff sites for nesting or large bodies of water preferred by this species for foraging were found during the survey of the project areas. All trees and snags were investigated for stick nests. There are no known nesting records of the species in this location. No individuals were recorded during field survey.

Other Species of Concern

Northern Goshawk (*Accipiter gentilis*) – Goshawks in the southwest typically inhabit ponderosa pine, mixed-conifer, and spruce-fir forest types, and as a habitat generalist, they use a variety of forest structural conditions and successional stages (Reynolds et al. 1992). Prey includes large-to-medium sized birds and mammals. Goshawks' home ranges are comprised of a nest area (approximately 30 acres), surrounded by a post fledgling family area (PFA) of approximately 420 acres, within a larger foraging area (approximately 6000 acres). Nest stands are typically in later successional stages, especially old growth. Postfledging family areas have patches of dense trees, developed herbaceous or shrubby understories, snags, downed logs, and small openings, which provide cover and prey. Fledglings develop their hunting skills here. Foraging area, by virtue of its size, is a mosaic of various successional stages and cover types.

One northern goshawk post-fledgling family area (PFA) has been identified less than ½ mile north of the airport property and a historic nest site is known to occur within ½ mile east of the airport property. Suitable nesting and foraging habitat exists within the ponderosa pine forested area that is found on the sawtooth parcel and the north parcel beyond the wildlife fence around the airport property.

Allen's Big-eared Bat (*Idionycteris phyllotis*) – Allen's big-eared bat is known to roost in abandoned mine shafts, most often in association with ponderosa pine forests, pinyon/juniper woodlands, and riparian areas of sycamores, cottonwoods and willows. This species is often found near boulder piles, cliffs, rocky outcroppings, or lava flows. Suitable habitat may exist in the ponderosa pine forested area that is found on the sawtooth parcel and the north parcel beyond the wildlife fence around the airport property.

Flagstaff Pennyroyal (*Hedeoma diffusum*) – The Flagstaff pennyroyal is found in north central Arizona on the San Francisco Plateau of the Colorado Plateau Province, and near Flagstaff southward in Coconino and Yavapai Counties. It is restricted to small, scattered limestone and sandstone outcrops of relatively undisturbed habitats at elevations ranging from 4,500 to 7,000 feet. Associated vegetation includes ponderosa pine, gambel oak, blue grama, and alligator juniper (AGFD 1993). Suitable habitat may exist in isolated areas with limestone and sandstone outcrops, particularly in the north parcel.

Mogollon columbine (*Aquilegia desertorum*) – This species is xerophytic, living on rocky slopes in the transition zone. It occurs at elevations ranging from 5,000 to 7,000 feet—but possibly as low as 3,500 feet (AGFD 1997). It is known to occur in Coconino County in canyons and plateaus southwest, south and southeast of Flagstaff toward the Mogollon Rim. It grows on ledges and bluffs, in potholes and clefts of Kaibab limestone outcrops on sites that may be moist or xeric. It is usually found in areas where some shade is provided by pine overstory. Suitable habitat may exist in isolated areas with limestone outcrops.

Flagstaff Beardtongue (*Penstemon nudiflorus*) – The Flagstaff beardtongue is an uncommon species that grows in dry pine forests in north-central Arizona. It flowers from June to August. It occurs at elevations ranging from 4,500 to 7,000 feet. Suitable habitat may exist within the ponderosa pine forest.

Rusby's Milkvetch (*Astragalus rusbyi*) – The Rusby's milkvetch is found adjacent to aspen groves, mixed conifer, ponderosa pine-Arizona fescue and ponderosa pine-gambel oak plant communities. Plants are generally located on dry sites or temporarily moist basaltic soils. It is found at elevations ranging from 6,500 to 9,000 feet. Suitable habitat may occur in the ponderosa pine forested area.

Arizona Sneezeweed (*Helenium arizonicum*) – This species is found at elevations ranging from 7,000 to 8,000 feet along roadsides and clearings in ponderosa pine forests. It is known only from central Arizona. Suitable habitat may exist in the ponderosa pine forested area.

ANALYSIS OF EFFECTS

Federally Listed Species

Mexican Spotted Owl – Potential impacts include the forecasted increase in aircraft operations, the potential height of aircraft over or near Walnut Canyon, and habitat disturbance and destruction within the project boundaries—primarily from tree removal.

Forecasted Aircraft Operations

An issue has been raised that increasing the number of flights into FLG could affect Mexican spotted owls that are within the flight path. As identified in Table 1, aircraft operations for FLG are anticipated to increase between 2002 and 2008 by approximately 15 flights per day for all aircraft using the airport. This increase in operations can be attributed to the FAA's projected growth in air traffic, as well as the potential for FLG to capture a greater market share of potential passengers that currently drive to Phoenix Sky Harbor International Airport or use other modes of transportation. Approximately seven of these flights are attributable to the class of aircraft that includes regional jets. As the seating capacity of regional jets is greater than that of the turbo prop aircraft currently being used by Mesa Airlines, forecasted operations are less than they would be without the larger regional jets. Additionally, the regional jets are quieter and can gain altitude more quickly than the turbo props currently used.

Existing research is not available on whether or not the owls associated with the Walnut Canyon PACs have acclimated to human-caused noise levels or how many additional operations could be added at the airport before an impact occurs. It appears that the owls no longer use areas within ¼ mile of the primary trails and visitor center (pers. com. Paul Whitefield, Walnut Canyon National Monument, October 2004). Urban development, such as the items listed below occurs around the PACs and it is impossible to determine if it has impacted the owls or how much and what types of additional activities can occur before an impact is noticed.

- Interstate 40 (approximately 2 miles north): approximately 18,000 vehicles per day (2002 ADOT Ave. Daily Traffic Counts)
- AT&SF Railroad (approximately 2 miles north): approximately 100 trains per day
- Residential Development near Fisher Point

As this document addresses only forecasted flights that may occur as early as 2008, Pulliam Airport personnel will provide the FAA and U.S. Fish and Wildlife Service with yearly operations data so that the U.S. Fish and Wildlife Service can gain a better understanding of the environment surrounding these PACs through 2008 and beyond.

Height of Aircraft Over or Near Walnut Canyon

Analysis of potential impacts to Mexican spotted owls and their protected activity centers (PAC's) in Walnut Canyon was also evaluated. Concerns involve the disturbance to nesting owls that could result in a reduction in the number of fledged young resulting from disturbances related to civil aviation overflights. While specific research has not been conducted at Walnut Canyon, research has been conducted elsewhere (Anderson et al. 1989, Ellis et al. 1991, and Windsor 1977). Federal agencies have also compiled research on the effects on wildlife summarized in the Report to Congress by the National Park Service, July 1995 and the Report on Aviation Noise Research Conducted by the U.S. Federal Agencies, June 1994. One such study reported on the *Effects of Helicopter Noise on Nesting Mexican Spotted Owls* (Delaney et al. 1997) was conducted in the Lincoln Nation Forest, New Mexico near Holloman Air Force Base. The sponsoring agency was the US Air Force Air Combat Command (Federal Interagency Committee on Aviation Noise (FICAN, 1994)). The research showed that no spotted owl flushes were recorded when the noise stimulus was greater than 105 meters (345 feet) from the nest. Based on other research, it was found that owls exhibited only an alert response (i.e., head movements) when helicopters were an average of 403 meters (1,322 feet) away.

Existing flight tracks for civil aviation aircraft out of FLG indicate a portion (about 10-20 percent) of flights turn north or south prior to reaching Walnut Canyon and therefore would not likely affect the owls at the canyon. The height of the aircraft that do continue over Walnut Canyon was determined using the data base information from the FAA Integrated Noise Model (INM) conducted for the FLG project. The model shows that civil aviation aircraft, which would produce a less intrusive noise characteristic than the helicopters, would be approximately 1,204 meters (3,950 feet) to 1,353 meters (4,440 feet) above Walnut Canyon, based on the varying topography of the area. Therefore, based on the INM information on flight tracks and altitudes and the research on owl response to intrusive noise, it could be concluded that the Mexican spotted owls of the Walnut Canyon PAC's should not be adversely affected by civil aviation overflights related to existing or projected FLG operations.

Noise levels resulting from existing and future operations at FLG have been predicted utilizing the FAA's Integrated Noise Model. The model predicts the noise levels and defines three (3) noise contours that are commonly used by the FAA to show the zones of impact around any airport property. The contour lines describe the 75 day–night levels (DNL), 70 DNL and 65 DNL. The day-night levels are average values that include all the noise energy produced by the noise sources over a 24 hour period with a 10 decibel penalty for those sources present during the nighttime period (10:00 PM to 7:00 AM). The 65 DNL noise contour for the FLG airport is located 600 feet off the northeast end of the runway for approach tracks and out at 3,100 feet off the southwest end of the runway for the departures. These distances define the outer limit of intrusive noise values for all receptors. As for the defined Mexican spotted owl PAC's in Walnut Canyon, they are located 8 miles or 42, 240 feet to the east of the FLG airport. The noise levels from airport operations should not affect the MSO's in Walnut Canyon.

Habitat Disturbance around Airport Property

Approximately 200 acres of the 315 found within the project areas are considered forested. This primarily involves the sawtooth parcel to the south and the north parcel outside the wildlife fence. Under a worst-case scenario, the deforestation of the sawtooth parcel in advance of its use as a borrow area, would alter or remove 200 acres of potential habitat for the Mexican spotted owl. As stated in the Affected Habitat section of this document, the Forest Service has completed several years of surveys for the Mexican spotted owl around the Pulliam Airport property and while suitable nesting and foraging habitat exists, MSO's have not been found. Also, during the raptor nest tree survey, conducted on August 31, 2001, no currently occupied raptor nests were found on, or within ¼ mile of, the properties surveyed. The closest known MSO PAC is 3 miles southeast of the airport.

The loss of the 200 acres of potential habitat for the MSO's could be mitigated by ensuring that the trees are not removed during the normal breeding, nesting and rearing season of March 1st to August 31st.

Bald Eagle – As described above, increasing the number of flights into FLG could affect individual bald eagles that are within the flight path of the airport (eagles along the I-17 corridor). However, these eagles already adapt to the noise levels associated with traffic on I-17 and would be much more susceptible to colliding with vehicular traffic than air traffic.

Bald eagles are known to winter at Lake Mary and Mormon Lake about 5 miles southeast of the airport. However, the forested area around the airport could be used for roosting or foraging. No significant cliff sites for nesting or large bodies of water preferred by this species for foraging are found within the surveyed area. During the raptor nest tree survey, no raptor nests were found on, or within ¼- mile, of the properties surveyed. There are no known nesting records of the species in this location and no individuals were recorded during field survey.

Other Species of Concern

Northern Goshawk - Impacts to northern goshawks would be from habitat disturbance and destruction, particularly from tree removal. Approximately 200 acres of the 315 found within the project areas are considered forested. Under a worst-case scenario, this would alter or remove 200 acres of habitat for the Northern goshawk. The closest known territories are the Zuni Post Fledgling Family Area (PFA) and Pumphouse Wash PFA, both within ½ mile of the airport property.

A raptor nest survey, with emphasis on Northern Goshawk (*Accipiter gentilis* L.) nests, was completed within the two parcels as well as a ¼ mile buffer zone around the parcels. If a nest was encountered, it was evaluated and categorized as active or inactive. Locations of active nests were to be recorded using a GPS. No currently occupied raptor nests were found on, or within ¼- mile, of the properties surveyed.

Northern goshawks are opportunistic and are known to prey on over 50 vertebrate species (Reynolds, et. al 1992). In Arizona and New Mexico, prey species for Northern goshawks include cottontail rabbit, pigeon, golden-mantled ground squirrel, northern flicker, American robin, Abert squirrel, and least chipmunk. The forested area surrounding the airport has become dense. Removing some of the trees within this area will result in increased populations of cottontail rabbit, robins, mourning doves, golden-mantled ground squirrels, and chipmunks, which are important goshawk prey items, while limiting the habitat for other species, such as the Abert squirrel. The net effect should not impact the prey availability for the Northern goshawk.

Allen's Big-eared Bat – Pedestrian surveys completed in July 2003, also included a search for habitat features preferred by the bat, such as mine shafts, boulder piles, cliffs, rocky outcroppings and lava flows.

None of these features were found during surveys of the project area. No threat to this species was found. The proposed action will not affect Allen's big-eared bats.

Flagstaff Pennyroyal – Threats to the Flagstaff pennyroyal include urban expansion, silvicultural activities, excessive livestock grazing, and throw-down camping. Populations are generally stable in wilderness areas (AGFD 1993). Pedestrian surveys for the plant species were conducted on July 9th-13th, 18th and 26th of 2003 on the basis of parallel transects spaced 20 meters apart. The goal was to obtain full coverage of the parcels. GPS locations were taken for specific plants, if encountered. The Deaver Herbarium at Northern Arizona University was used to compare plants, in question, to documented specimens for identification. The property boundaries of the two areas were identified on topographic maps and by U.S. Forest Service cadastral survey markers on the ground, where available.

One population was found on the northern boundary of parcel #1 at: UTM S 12 0440298, W 3890526 (see Figure 2). This population consists of approximately thirty individual plants on two natural limestone outcroppings comprising a total area of less than 50 meters square (see Photo 1). This location is approximately 150 meters north of Lake Mary Road and 40 meters west of John Wesley Powell Blvd in the undisturbed forest. No construction activities associated with the runway extension project are anticipated to occur in this area and the population should not be affected from the project. No other *Hedeoma diffusum* populations or individuals were found.

Flagstaff Beardtongue, Rusby's Milkvetch, Arizona Sneezeweed, and Mogollon Columbine – A pedestrian survey for plant species of concern was conducted on July 9th-13th, 18th and 26th of 2003 on the basis of parallel transects spaced 20 meters apart. The goal was to obtain full coverage of the parcels. GPS locations were taken for specific plants, if encountered. The Deaver Herbarium at Northern Arizona University was used to compare plants, in question, to documented specimens for identification. The property boundaries of the two areas were identified on topographic maps and by U.S. Forest Service cadastral survey markers on the ground, where available. None of these species were found during surveys of the project area. No threats to these species were found. The proposed action will not affect the individual species.

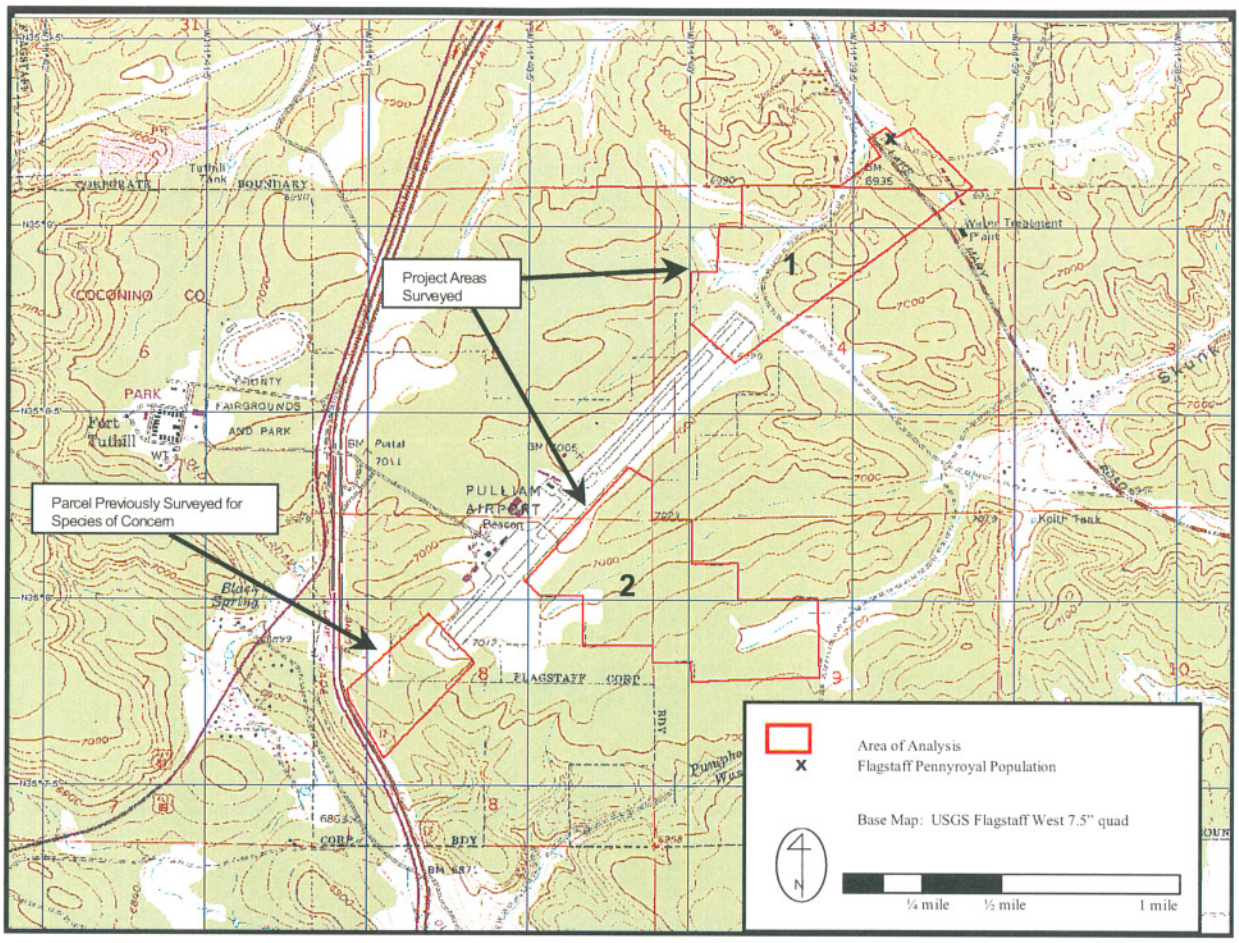

Figure 2. Location of Flagstaff Pennyroyal Population

Photo 1. Flagstaff pennyroyal found during surveys for the Pulliam Airport Runway Extension project.

DETERMINATION OF EFFECT

Federally Listed Species

Mexican Spotted Owl: For the following reasons, it is determined that the proposed action may affect, but will not likely adversely affect the Mexican spotted owl.

1. Based on noise-level modeling, aircraft that continue over Walnut Canyon should be between 3,950 feet to 4,440 feet above Walnut Canyon, based on the varying topography of the area—nearly twice the distance that researchers have found Mexican spotted owls to respond to.

2. Noise levels at Walnut Canyon would be less than 65 DNL, a level previous research found no response from Mexican spotted owls.

3. Forecasted operations are less with the regional jets than with the turbo props because of greater seating capacity. Additionally, the regional jets are quieter and can gain altitude more quickly than the turbo props currently used.

4. No currently occupied raptor nests were found on, or within ¼- mile, of the airport properties surveyed. The closest known management territory is about 3 miles southeast of the airport.

Bald Eagle: For the following reasons, it is determined that the proposed action may affect, but will not likely adversely affect the bald eagle.

1. Eagles foraging along the I-17 corridor are already adapted to the noise levels associated with traffic on I-17 and would most likely continue to forage in the area because of available carrion regardless of increased air traffic. Eagles would be much more susceptible to colliding with vehicular traffic than air traffic.

2. No significant cliff sites for nesting or large bodies of water preferred by this species for foraging were found during within the surveyed area. Additionally, no stick nests were found within the project area or ¼ mile buffer zone.

Other Species of Concern

Based on the "*Analysis of Effects*", it is determined that implementation of the Pulliam Airport Runway Extension project would have "no impact" on the following species:

- Rusby's Milkvetch
- Flagstaff Beardtongue
- Arizona Sneezeweed
- Allen's Big-eared Bat
- Northern Goshawk
- Flagstaff Pennyroyal
- Mogollon Columbine

PREPARERS

Prepared by:_____Date: May 18, 2005

SONNY KUHR

Aztec Research & Consulting, LLC

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City of Flagstaff

211 West Aspen
Flagstaff, AZ 86001
Phone 520/779-7650

Noxious Weed Assessment

Pulliam Airport Master Plan Improvements
Runway Extension

Prepared by:
AZtec Research & Consulting, LLC
2141 E. Skyline
Flagstaff, AZ 86004

Submitted to:
Michael Baker Jr., Inc.
1313 E. Osborne, Ste. 150
Phoenix, AZ 85014

Prepared for:
City of Flagstaff
211 W. Aspen
Flagstaff, AZ 86001

December 2003

Project No. 24547

Introduction

Pulliam Airport sits on approximately 670 acres located about four miles south of Flagstaff, Arizona. The airport is surrounded by land managed by the Coconino National Forest and a portion of the airport is operated under an avigation easement issued by the Forest Service to the City of Flagstaff in 1956. The airport has a single runway (Runway 3-21) that is 150 feet-wide and 7,011 feet-long.

This report presents the results of a noxious weed assessment that was completed for approximately 315 acres associated with the runway extension, as part of the airport master plan improvement projects proposed by the City of Flagstaff.

Project Description

The purpose of the runway extension proposed by the City of Flagstaff is to provide a runway length capable of accommodating the larger business jets and forecasted commuter regional jet aircraft to operate without weight restrictions, and to enhance the operational safety of the aircraft using the airport. The proposed improvements include the following:

- Extend Runway 3-21 from 7,011 feet to 8,800 feet,
- Extend Parallel Taxiway A to 8,800 feet,
- Extend the High Intensity Runway Lights (HIRL) and Medium Intensity Taxiway Lights (MITL),
- Replace Visual Approach Slope Indicator (VASI-4) on the Runway 21 end with a Precision Approach Indicator (PAPI-4),
- Adjust approach lighting system on Runway 21 end,
- Clear and grade area for extended Runway Safety Area and Runway Protection Zone located within avigation easement over US Forest Service property, and
- Cut 225,000 cubic yards (cu. yd.), fill 1,000,000 cubic yards, clear and grade area within airport boundary located in the future eastside aviation development area to borrow 775,000 cu. yd.

Project Description

Noxious weed surveys associated with the proposed project involved investigating two separate parcels surrounding the airport (Figure 1). A third parcel south of the existing runway is part of the project area, but was previously surveyed for noxious weeds for the Emergency Runway Safety Area project. It was not resurveyed for this project. The legal descriptions of the parcels are (Gila and Salt River Meridian)

1. North parcel: Township 20N, Range 7E, portions of the NW ¼, and NE ¼, of Section 4
   Township 21N, Range 7E, portions of the SW ¼, and EE ¼, of Section 33
2. SE parcel: Township 21N, Range 7E, portions of NE ¼, of Sec. 8 and NW ¼ of Sec. 9

The parcel to the southeast is owned entirely by the City of Flagstaff. Approximately ½ of the parcel to the north is City owned. The U.S. Department of Agriculture, Coconino National Forest, Mormon Lake Ranger District manages the other portion of this parcel. They have granted an avigation easement to the City of Flagstaff for this parcel for airport operations. This portion of the parcel is part of the Yavapai Land Exchange proposal that is currently being considered by Congress. If approved by Congress, the parcel would become privately owned, at which time the City could purchase for airport expansion.

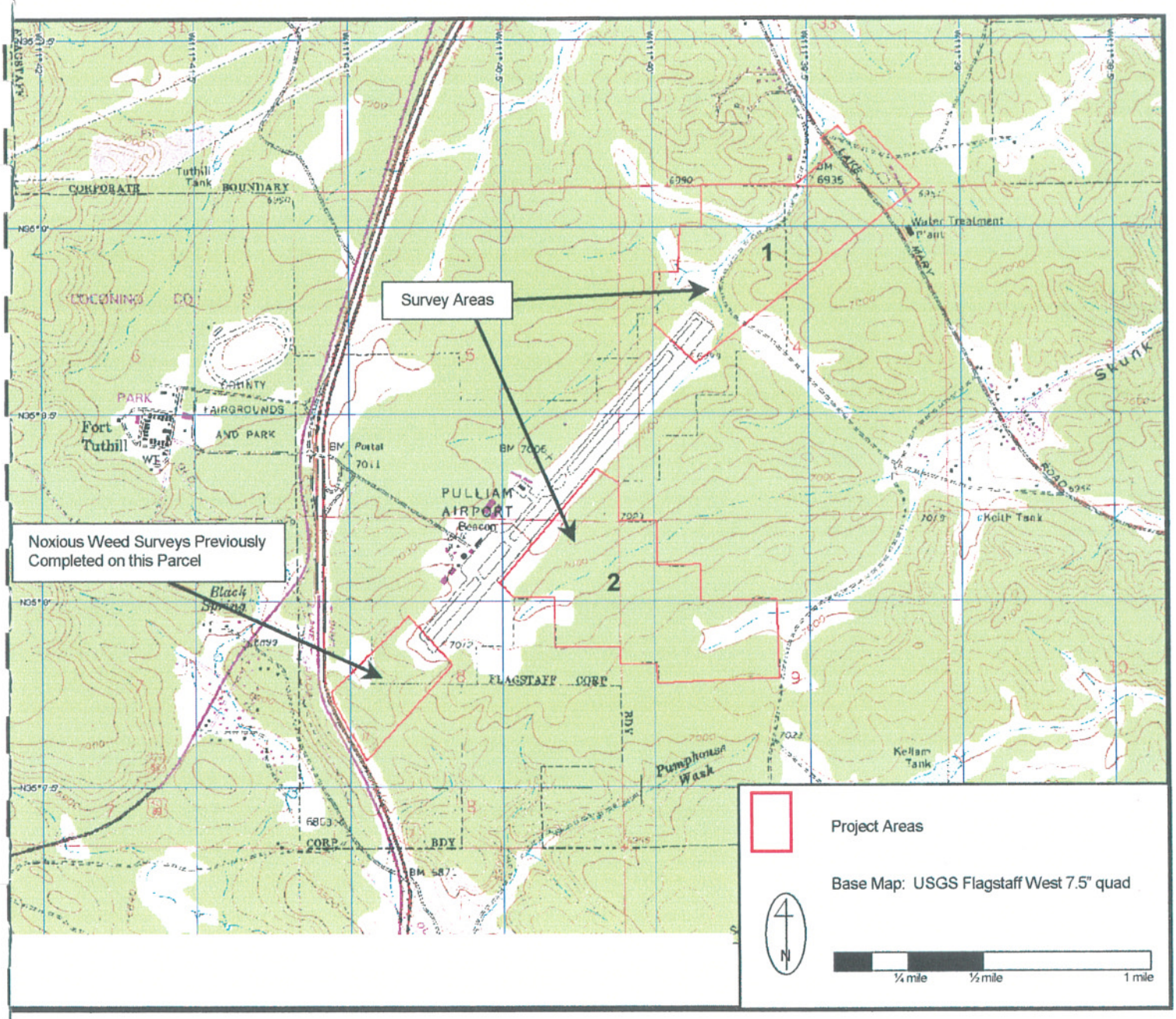

Figure 1. Project Area Map

Survey Methods and Results

Survey Methods

The Coconino National Forest furnished a copy of the survey protocol provided in "A Method of Assessing the Risk of Introducing Noxious Weeds", July 1998 and the Coconino National Forest Noxious Weed List for 2003. It was assumed that any species listed as known to occur on the Coconino National Forest should be searched for during the survey.

A pedestrian survey was conducted on July 9th-13th, 18th and 26th, 2003 on the basis of parallel transects spaced 20 meters apart. Transects were walked in a zigzag fashion to more completely search the area. The goal was to obtain full coverage and identification of individual plants. GPS locations were taken for concentrations of alien species. The property boundaries of the two survey areas were identified on topographic maps and by U.S. Forest Service cadastral survey markers, when available.

Results

Terrain within the project areas is flat to gently sloping. The parcel to the north has been disturbed by previous airport activities. The sawtooth parcel to the southeast has several roads and dirt tracks criss-crossing through the parcel, but is relatively undisturbed.

Soils in the project area are of a silty texture derived from Kaibab limestone. Some limestone cobbles and pebbles exist on the soil surface naturally and other rocks and boulders have been spilled into the area probably from past construction activities.

Vegetation within the airport fencing is dominated by herbaceous species such as yellow sweet clover (*Melilotus officinalis*), white clover (*M. alba*), scarlet gaura (*Gaura coccinea*), and sunflower (*Helianthus annuus).* The latter is a native plant while the two clovers are non-natives. Ponderosa pine trees (*Pinus ponderosa*) are the most common tree and grow in nearly pure stands outside the airport fencing and Runway Safety Area/Protection Zone. These stands appear to be last harvested in the early decades of the 20th Century and have regenerated as dense, stunted trees 60 to 80 feet tall and up to 80 years old. To the east of the airport fencing, the canopy is nearly complete, except for infrequent openings in a few drainages that support a mix of native grasses. A heavy forest litter has accumulated, with little or no herbaceous cover in the denser stands outside the airport fencing.

Four species of weeds are prevalent on the survey parcels in mainly localized areas of previous disturbance: Dalmatian toadflax (*Lineria genistifolia* d*almatica*), Cheatgrass (*Bromus tectorum*), Bull thistle (*Cirsium vulgare*), and Mullein (*Verbascum thapsus*). These species are particularly concentrated in areas of previous disturbance and are common within the fenced airport property, in the drainage to be filled by the proposed northern 1800' expansion and in the land cleared for the landing light alignment. Two of the species (Dalmatian toadflax and cheatgrass) are also found outside and adjacent to the fence, appearing to invade the forest and grasslands of the sawtooth area. Dalmatian toadflax is probably the main species of concern and is also found throughout the sawtooth area in localized populations as noted in Table 1.

Two small populations of bull thistle (*Cirsium vulgare)* were found on the northern parcel. Figure 2 shows the localized populations of the four listed weed species. Field data sheets are attached to this report.

Of the four species found on the properties surveyed for the airport expansion project, none are classified as "Class A: eradicate", the highest priority. Dalmation toadflax and bull thistle are classified as "Class B: contain/control." Cheatgrass is considered a "Class C: contain" invasive and was found mostly on disturbed sites and along roadsides. Mullein is also a "Class C: contain" invasive and was primarily concentrated within the fenced area of the northern parcel.

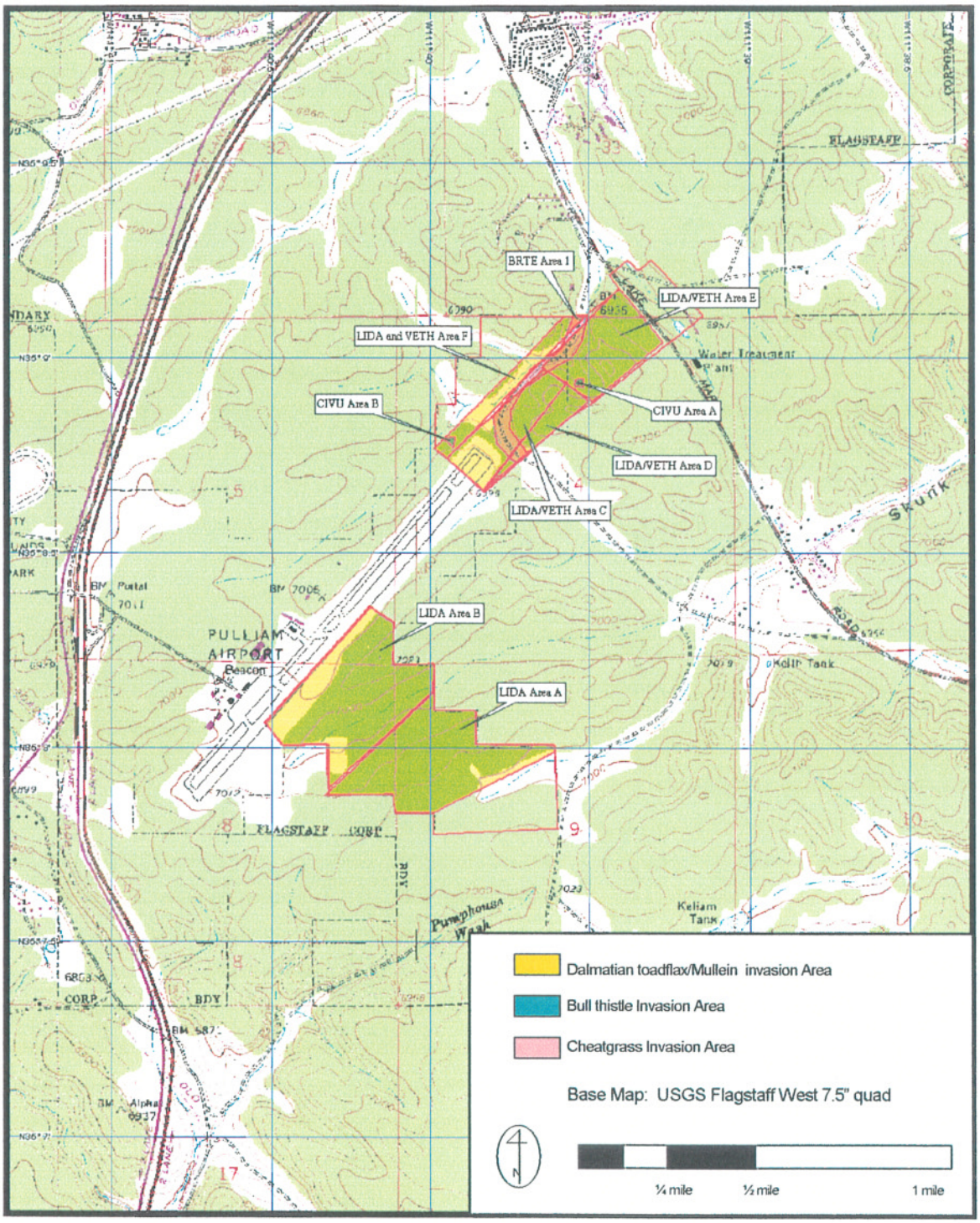

Figure 2. Areas of Weed Invasion

Table 1. Point Data for **Class B** (contain/control) Forest Listed Invasive Plant Species (Map datum: UTM, WGS 84)

Point	Zone/Northing/Easting
LIDA 1	12 0439631 3888345
LIDA 2	12 0438818 3887879
LIDA 3	12 0439717 3890072
LIDA 4	12 0440220 3890032
LIDA 5	12 0440051 3889903
LIDA 6	12 0438388 3887519
LIDA 7	12 0438768 3887806
LIDA 8	12 0438949 3888047
LIDA 9	12 0439318 3888646
LIDA 10	12 0439802 3889356
LIDA 11	12 0439911 3889628
LIDA 12	12 0439936 3890057
LIDA 13	12 0439987 3889957
LIDA 14	12 0439772 3889840
LIDA 15	12 0439685 3889712
LIDA 16	12 0439592 3889676
LIDA 17	12 0439461 3889801
LIDA 18	12 0439918 3889801
LIDA 19	12 0439830 3889360
CIVU 1	12 0439446 3890057

Key: LIDA - Dalmatian toadflax, *Lineria genistifolia dalmatica* (L.)
CIVU - Bull thistle, *Circium vulgare*

Table 2. Center Points of Polygons of **Class B** (contain/control) Forest Listed Invasive Plant Species 2003 (Map datum: UTM, NAD 27)

Polygon	Center Point Zone/Easting/Northing	Infested Acres	Distribution (% canopy)
LIDA A	12 0439422 3887885	86	Scattered patchy (<1%)
LIDA B	12 0440586 3888053	84	Scattered patchy (5-25%)
LIDA C	12 0439577 3890929	40	Scattered evenly (25-50%)
LIDA D	12 0439913 3888967	14	Scattered evenly (5-25%)
LIDA E	12 0439877 3889413	17	Clumps (5-25%)
LIDA F	12 0439648 3889451	20	Clumps (5-25%)
CIVU A	12 0439513 3889370	0.1	Clumps (5-25%)
CIVU B	12 0439981 3889431	0.1	Clumps (5-25%)

Key: LIDA - Dalmatian toadflax, *Lineria genistifolia dalmatica* (L.)
CIVU - Bull thistle, *Circium vulgare*

Discussion

Coconino National Forest provides a systematic approach for assigning management emphasis priorities and is quoted below:

Class A – Those invasive weeds that are non-native (exotic) to the state and are of limited distribution or are unrecorded in the State and pose a serious threat to agricultural crop, rangelands, plants listed an endangered, threatened or sensitive and other natural and economic resources in the ecosystem. Class A plants receive highest priority. Management emphasis is complete eradication.

Class B – Those invasive weeds that are non-native (exotic) species that are of limited distribution or are unrecorded in a region of the state but are common in other regions of the state. Class B plants receive second highest priority. Management emphasis is to contain the spread, decrease population size, and eventually eliminate the infestation when cost effective technology is available.

Class C – Consists of any other invasive weeds (exotic or native). This classification receives the lowest priority. Management emphasis is to contain spread to present population size or decrease population.

The invasive weed classes may be further subdivided to meet regional, National Forest, or other needs (Coconino National Forest Invasive Plant Species List 2003).

After field surveys were complete, a risk rating was calculated for each species using the formula:

Risk Rating = Likelihood X Consequence

Likelihood = the likelihood that a noxious weed species will become established in the project area. Possible values for likelihood are 0, 1, 5, and 10. The value zero (0) is used when noxious weed species are not located within or immediately adjacent to the project area. One (1) is used when noxious weed species are present in areas adjacent to but not within the project area. Five (5) is used when noxious weed species are located within or immediately adjacent to the project area. Ten (10) is used when heavy infestations of noxious weeds are located within or immediately adjacent to the project area.

Consequence = the consequence of a noxious weed species becoming established in the project area. Possible values for consequence are 1, 5, and 10. The value one (1) is used when no cumulative effects are expected. Five (5) is used when there are possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely, but limited. Ten (10) is used when there are obvious adverse effects within the project area and probable expansion of noxious weed infestations to areas outside the project area. Adverse cumulative effects on native plant communities are probable.

Risk ratings can have values of 0-100 and fall under the following risk categories.

None = 0
Low = 1- 10
Moderate = 11- 49
High = 50-100

This formula was obtained from a July 1998 document titled: *Noxious Weed Strategic Plan Working Guidelines, Coconino, Kaibab and Prescott National Forests.*

The Risk Ratings for the three noxious weed species are as follows:

Dalmation toadflax (Class B) = Likelihood X Consequence = 10 X 10 = 100

This risk rating is considered HIGH because dalmation toadflax is common in the project area; therefore, causing current adverse effects, and that expansion of this species outside of the project area is probable.

Bull thistle (Class B) = (Likelihood X Consequence) = 5 X 5 = 25

This risk rating is considered MODERATE because bull thistle already exists in the project area; therefore, causing the potential for adverse effects. Cumulative effects on the native plant community are likely, but limited.

Cheatgrass (Class C) = Likelihood X Consequence = 10 X 10 = 100

This risk rating is also considered HIGH because cheatgrass is common in the project area; therefore, causing current adverse effects, and that expansion of this species outside of the project area is probable.

Mullein (Class C) = Likelihood X Consequence = 10 X 10 = 100

This risk rating is also considered HIGH because mullein is common in the project area; therefore, causing current adverse effects, and that expansion of this species outside of the project area is probable.

Conclusions

Invasive non-native plants were found in areas that had been previously disturbed or within and adjacent to the fenced airport runways. In addition, dalmatian toadflax was dispersed throughout the forested properties in localized populations. This species is of greater concern to the Forest Service than the other species noted because of its ability to invade throughout the forest (L. Moser, personal communication). A management plan should be developed to first eliminate this species from the fenced area and then from the forested area before mining disturbance takes place. In comparison to other infestations affecting much of the western United States, such as the genus *Centaurea* (Knapweeds and Starthistles) this population of toadflax can be dealt with effectively with best construction practices.

Mitigation Measures

According to the 2003 document, projects with species with risk ratings of moderate or high must develop a plan to prevent the introduction or spread of noxious weeds. The following list of mitigation measures should help prevent the spread of noxious weeds resulting from construction activities at Pulliam Airport.

1. Before construction occurs, dig up any bull thistle plants in the construction area. Dig hole a minimum of 5 feet below surface level in an area that will be paved over and place noxious weed plant material in the hole. Fill hole with weed free soil or gravel.

2. Wet all soil before scraping or moving in order to prevent soil with noxious weed seeds from becoming airborne or otherwise spread.

3. In areas with dalmation toadflax, mullein and cheatgrass, vehicles and equipment that are driven through or parked in weed-infested areas must be spray washed each time that the vehicle leaves the area. A high pressure hose will be used to clear the undercarriage, tire tread, grill, radiator, and beds of any mud, dirt, and plant parts that may potentially spread the seeds or viable parts of noxious plants. Wash sites should be mapped on a 1:24,000 scale map and should be monitored for future weed infestation.

4. All construction vehicles and equipment will be washed before coming onto National Forest system land as described in mitigation #3.

5. When construction is complete, all disturbed areas will be reseeded with a certified weed-free, native plant mix.

6. The use of off-site fill materials in the project areas is discouraged. Excavated substrate from on-site will be used whenever fill substrate is needed. If on-site substrate is used, and if it contains weed seed, this soil should not be part of the top three inches of soil. Instead, weed-free soil will be used in the top three inches. If material is imported, the site where the fill source comes from will be surveyed for noxious weeds, Fill material will not come from a source infested with noxious weeds.

7. Water used for dust abatement and other construction activities should be obtained from a source that is free of noxious weeds.

8. The locations of all Class A plants will be mapped on a 1:24,000 scale map for entry into the Southwest Exotic Plant Mapping Program (SWEMP) database. Copies of all survey forms and maps will be given to the lead Forest Service district.

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COCONINO NATIONAL FOREST

INVASIVE PLANT SPECIES LIST 2003

COCONINO National Forest
INVASIVE PLANT SPECIES LIST 2003

SCIENTIFIC NAME	COMMON NAME	OBJECTIVE	Acres
Acroptilon repens	Russian knapweed	Contain/Control	100
Aegilops cylindrica	jointed goatgrass	Contain/Control	60+
Ailanthus altissima	tree of heaven	Eradicate/Control	100+
Alhagi pseudoalhagi	camelthorn	Contain/Control	10
Arundo donax	reed grass	Eradicate/Control	7
Asphodelous fistulosus	onion weed	Prevent/Eradicate	Potential
Avena fatua	wild oats	Contain/Control	220
Brassica tournefortii	Saharan mustard	Contain/Control	20
Bromus tectorum	**cheatgrass**	**Contain**	**1000++**
Bromus rubens	red brome	Contain	1000++
Cardaria chalepensis	lens-podded hoary cress	Prevent/Eradicate	Potential
Cardaria draba	whitetop or hoary cress	Eradicate/Control	25
Cardaria pubescens	globe-potted hoary cress	Prevent/Eradicate	Potential
Carduus nutans	musk thistle	Eradicate/Control	50
Centaurea calcitrapa	purple starthistle	Prevent/Eradicate	Potential
Centaurea diffusa	diffuse knapweed	Contain/Control	880
Centaurea maculosa	spotted knapweed	Eradicate/Control	65
Centaurea melitensis	Malta starthistle	Eradicate	20
Centaurea solstitialis	yellow starthistle	Eradicate/Control	175
Chrysanthemum leucanthemum	oxeye daisy	Prevent/Eradicate	2
Cirsium arvense	Canada thistle	Prevent/Eradicate	Near
Cirsium vulgare	**bull thistle**	**Contain/Control**	**22500**
Cynoglossum officinale	houndstongue	Eradicate	2
Dipsacus sylvestris	teasel	Eradicate	Unsurveyed
Drymaria arenarioides	alfombrilla	Prevent/Eradicate	Potential
Echhornia azurea	anchored waterhyacinth	Prevent/Eradicate	Potential
Eleagnus angustifolia	Russian olive	Contain/Control	25
Eragrostis lehmanniana	Lehmann lovegrass	Contain	
Euphorbia esula	leafy spurge	Contain/Control	3200
Euryops subcarnosus	sweet resin bush	Prevent/Eradicate	Near
Halogeton glomeratus	halogeton	Prevent/Eradicate	Near
Hedera helix	English ivy	Contain	10
Hydrilla verticillata	hydrilla	Prevent/Eradicate	Potential
Hyoscyamus niger	black henbane	Prevent/Eradicate	Potential
Hypericum perforatum	common St. Johnswort	Prevent/Eradicate	Near
Isatis tinctoria	dyer's woad	Prevent/Eradicate	Near
Kochia scoparia	kochia	Contain/Control	Unsurveyed
Ludwigia peploides ssp.	floating water primrose	Contain/Control	Unsurveyed
Linaria dalmatica	**Dalmatian toadflax**	**Contain/Control**	**155,000++**
Linaria vulgaris	yellow toadflax	Eradicate	1
Lythrum salicaria	purple loosestrife	Prevent/Eradicate	Potential
Myriophyllum spicata	Eurasian water milfoil	Eradicate	5
Onopordum acanthium	Scotch thistle	Contain/Control	325
Peganum harmala	African rue	Prevent/Eradicate	Potential

Potentilla recta	Sulfur cinquefoil	Eradicate	10
Rubus procerus	Himalayan blackberry	Eradicate/Contro	325
Salvia aethiopis	Mediterranean sage	Eradicate/Contro	590
Sorghum halepense	Johnson grass	Contain/Control	530
Tamarix ramosissima	salt cedar or Tamarix	Contain/Control	135
Tribulus terrestris	puncture-vine	Contain	Unsurveyed
Ulmus pumula	Siberian elm	Eradicate/Contro	25
Verbascum thapsus	**common mullein**	**Contain**	**Unsurveyed**
Vinca major	Periwinkle	Contain	5

Any species listed with 'Eradicate' in the objective column is considered a Class A invasive weed species.
Any species listed with 'Contain/Control' in the objective column is considered a Class B invasive weed species.
Any species listed with Contain' in the objective column is considered a Class C invasive weed species.

Region 3 Invasive Weed Classification System. The Region 3 invasive weed classification system provides a systematic approach for assigning management emphasis priorities.

1. Class A - Those invasive weeds that are non-native (exotic) to the state and are of limited distribution or are unrecorded in the State and pose a serious threat to agricultural crop, rangelands, plants listed an endangered, threatened or sensitive, and other natural and economic resources in the ecosystem. Class A plants receive highest priority. Management emphasis is complete eradication.

2. Class B - Those invasive weeds that are non-native (exotic) species that are of limited distribution or are unrecorded in a region of the state but are common in other regions of the state. Class B plants receive second highest priority. Management emphasis is to contain the spread, decrease population ' size, and eventually eliminate the infestation when cost effective technology is available.

3. Class -C - Consists of any other invasive weeds (exotic or native) . This classification receives the lowest priority. Management emphasis is to contain spread to present population size or decrease population.

The invasive weed classes may be further subdivided to meet regional, National Forest, or local needs.

FIELD FORMS

Coconino N.F. Invasive Weed Data Sheet

NAME: McDonald, Mike					% canopy cover: A=absent, T=<1%, 1=1-5%, 2=5-25%, 3=25-50%, 4=50-75%, 5=75-95%, 6=95-100%
County: Coconino 0304					distribution: CL=clumps, LI=linear (roads), SE=scattered evenly, SP=scattered patchy
site code = 03+04+District#+unique# = shape file name					life forms: AL=algae, FB=forb/herb, FU=fungus, GR=grass, LC=lichen, SH=shrub, TR=tree, UN=unknown
Datum = NAD83 or NAD27; Zone = 11 12 or 13;					control: A=no action, B=biological, C=cultural, D=herbicide, E=mechanical, F=manual

date	site code	project name	Center Point utmE (6)	: utmN (7)	Polygon map or gps	Species (plant code)	% canopy cover	gross area (total acres)	infested acres est.	distrib'n	dominant life form	dist.to water *	No control action taken	observer comments ie. life stage,soils,drought (over if needed)
2003 7/9	LIDA A	PULLIAM	0439422	3887885	GPS	LIDA	T	86.	10	sp	TR			NO STANDING WATER AT ALL *
7/9	LIDA B	"	0440586	3888053	GPS	LIDA	2	84.	15	sp	GR			LIDA IN FULL BLOOM
7/10	LIDA C	"	0439577	3890929	GPS	LIDA	3	39.7	30	se	FB			THICK ON AIRPORT PROPERTY
7/11	LIDA D	"	0439913	3888967	GPS	LIDA	2	14.5	12	se	GR			PREVIOUSLY DISTURBED
7/12	LIDA E	"	0439877	3889413	GPS	LIDA	2	17.4	12	cl	FB			DISTURBED AREA OF LANDING LIGHTS
7/18	LIDA F	"	0439648	3889451	GPS	LIDA	2	19.4	10	cl	GR			LIDA IN SUNNY ASPECTS
7/26	CIVU 1	"	0439513	3889370	GPS	CIVU	T	0.1	0.1	cl	FB			MORE CIVU IN IMMEDIATE AREA
7/26	CIVU 2	"	0439981	3889431	GPS	CIVU	3	0.5	0.1	cl	FB			THICK DENSE STANDS

FLAGSTAFF
PULLIAM AIRPORT

Appendix G

WETLAND DETERMINATION

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
ARIZONA-NEVADA AREA OFFICE
3636 NORTH CENTRAL AVENUE, SUITE 900
PHOENIX, ARIZONA 85012-1939

REPLY TO

Office of the Chief
Regulatory Branch

September 23, 2004

RECEIVED

SEP 24 2004

MICHAEL BAKER JR., INC.

Mark Turner
Michael Baker Jr. Inc.
1313 East Osborn Road, Suite 150
Phoenix, Arizona 85014

File Number: 2003-01332-DE

Dear Mr. Turner:

Reference is made to your letter of July 19, 2004 in which you inquired as to the jurisdictional limits of Section 404 of the Clean Water Act for the unnamed washes within Sections 4, 5, & 8, T20N, R7E, Flagstaff, Coconino County, Arizona ("Flagstaff Pulliam Airport Expansion").

The enclosed aerial photograph or map delineates the waters of the United States, including wetlands, regulated by Section 404 of the Clean Water Act. This approved jurisdictional determination will remain in effect for five years from the date of this letter unless an unusual flood event occurs. After this five-year period or after an unusual flood event alters stream conditions, the Corps of Engineers reserves the authority to retain the original jurisdictional limits or to establish new jurisdictional limits as conditions warrant.

Each water of the United States herein delineated is an interstate water or a water that is tributary to an interstate water. The Section 404 jurisdictional limit for a water of the United States is defined at 33 CFR Part 328. The jurisdictional limit for a non-tidal water of the United States is determined by the jurisdictional wetland boundary and/or the ordinary high water mark. The jurisdictional limit of a wetland is determined in accordance with the Corps of Engineers 1987 Wetlands Delineation Manual. Otherwise, presence of the indicators stated in the definition of ordinary high mark (33CFR 328.3(e)) are used to establish the jurisdictional limit of a water of the United States. The basis of this jurisdictional determination is shown on the enclosed checklist.

Any discharge of dredged or fill material within the designated jurisdictional area requires a Section 404 permit from the Corps of Engineers. The Corps of Engineers emphasizes avoidance of the delineated jurisdictional area. Please review this delineation and evaluate your proposed activity to ensure that avoidance of the jurisdictional area is given full consideration in your design. If all discharges of dredged or fill material occur outside the designated jurisdictional area, no Section 404 permit is required. If avoidance is not practicable, please reference File Number 2003-01332-DE when submitting your Section 404 permit application to the Corps of Engineers. Please be advised that your application needs to substantiate that avoidance of designated jurisdictional areas is not practicable and substantiate that impacts to waters of the United States have been minimized.

Furthermore, you are hereby advised that the Corps of Engineers has established an Administrative Appeal Process for jurisdictional determinations which is fully described at 33 CFR Part 331. The Administrative Appeal Process for jurisdictional determinations is diagrammed on the enclosed Appendix C. If you decide not to accept this approved jurisdictional determination and wish to provide new information please send the information to this office. If you do not supply additional information you may appeal this approved jurisdictional determination by completing the attached "Notification of Administrative Appeal Options and Process and Request for Appeal" form and submitting it directly to the Appeal Review Officer at the address provided on the form.

The receipt of your letter is appreciated. If you have questions, please contact Daisy Eldridge at (602) 640-5385.

Sincerely,

Ron Fowler
for Cindy Lester P.E.
Chief, Arizona Section
Regulatory Branch

Enclosures

Basis of Jurisdictional Determination

Date of field visit: September 14, 2004

Indicators observed during site visit:

__X__ Destruction of terrestrial vegetation
__X__ Changes in soil characteristics (e.g. sandy channel bottoms)
_____ Impression of water line on bank
__X__ Shelving or cut banks
__X__ Presence of litter/debris
__X__ Sediment deposits
__X__ Water stains
__X__ Exposed roots
__X__ Presence of manmade drainage features/scour protection
_____ Other

Supporting documentation:

__X__ Applicant's proposed jurisdictional determination
_____ Wetland delineation following 1987 Corps Wetland Delineation Manual
__X__ Aerial photography interpretation
__X__ Ground photographs
__X__ Topographic map interpretation
_____ Review of historical records and/or aerial photography
__X__ Comparison of previously accepted delineations of the area
__X__ USGS map(s)
_____ Flow data (drainage reports, modeled flows, USGS gage data, or other sources)
_____ Floodplain maps
_____ Soil Maps
_____ Environmental Assessment/ Environmental Impact Statement
_____ National Wetland Inventory Maps
__X__ Staff knowledge of precipitation and fluvial dynamics of the region
_____ Biological resource reports
_____ Other

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant:	File Number: 2003-01332-DE	Date: September 23, 2004

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the DISTRICT engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the DISTRICT engineer. Your objections must be received by the DISTRICT engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the DISTRICT engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the DISTRICT engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the DIVISION (not district) engineer (address on reverse). This form must be received by the DIVISION (not district) engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the DIVISION (not district) engineer (address on reverse) engineer. This form must be received by the DIVISION (not district) engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the DIVISION (not district) engineer (address on reverse) engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL OF PROFFERED PERMIT, PERMIT DENIAL, OR APPROVED JD TO DIVISION ENGINEER; SUBMITTAL OF OBJECTIONS TO AN INITIAL PROFFERED PERMIT OR NEW INFORMATION FOR APPEAL OF APPROVED JURISDICTIONAL DETERMINATION TO DISTRICT ENGINEER

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION

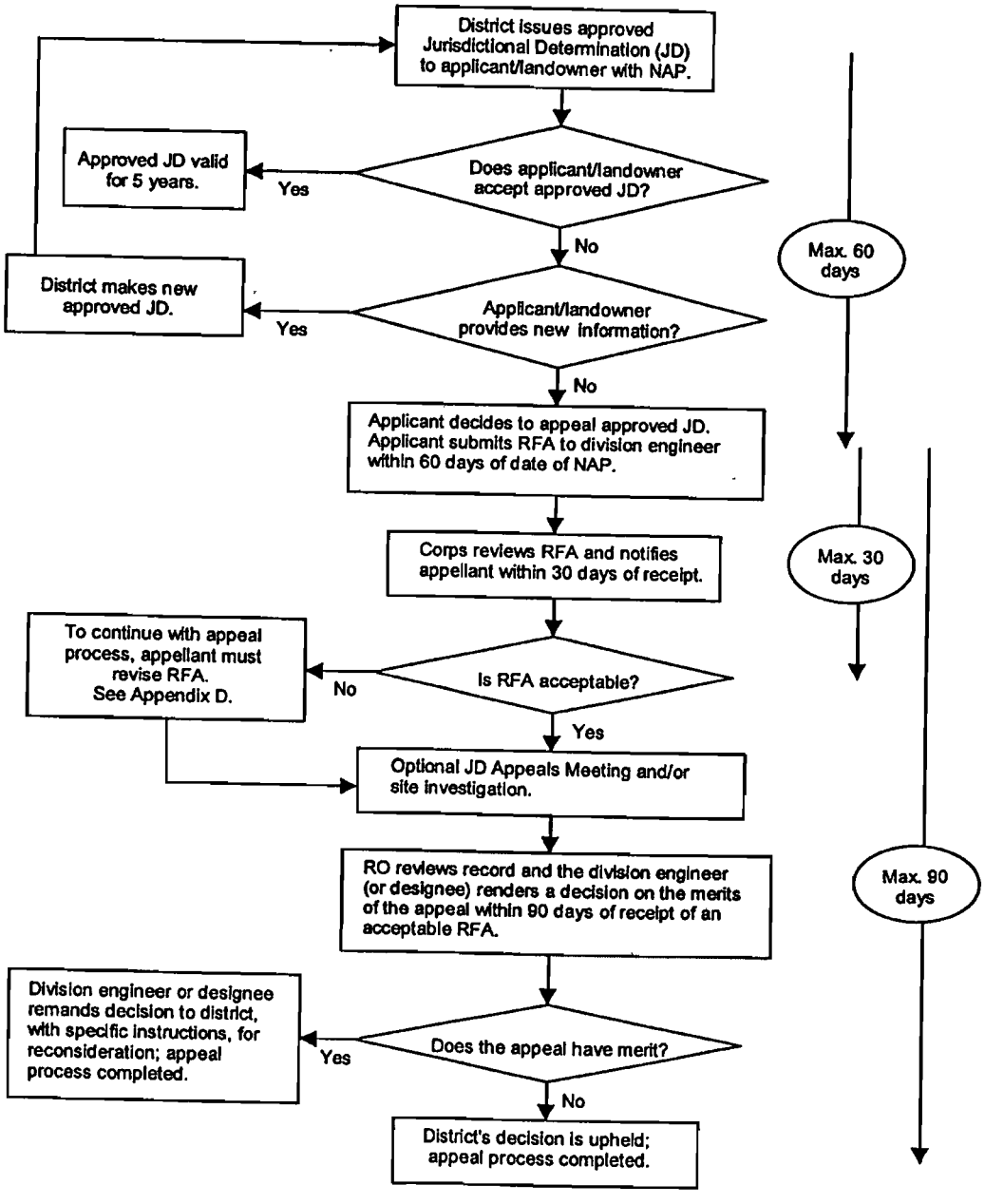
If you have questions regarding this decision and/or the appeal process you may contact:
DISTRICT ENGINEER
Los Angeles District, Corps of Engineers
Attn: Chief, Regulatory Branch
PO Box 532711 Los Angeles, CA 90053 (213-452-3425)

If you only have questions regarding the appeal process you may also contact:
DIVISION ENGINEER
Army Engineer Division, South Pacific, CESPD-CM-O
Attn: Doug Pomeroy Administrative Appeal Review Officer
333 Market Street San Francisco, CA 94015 (415-977-8035)

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

	Date:	Telephone number:
Signature of appellant or agent.		

Administrative Appeal Process for Approved Jurisdictional Determinations
APPENDIX C



1 of 3

SECTION 404 JURISDICTIONAL DELINEATION
U.S. Army Corps of Engineers, Los Angeles District
Application No. 2003 -01332 - DE

---Boundary of area surveyed for jurisdictional waters of the United States

------Ordinary High Water Mark

------Waters of the United States

------Wetlands (If legend is blank, no wetlands occur with survey area.)

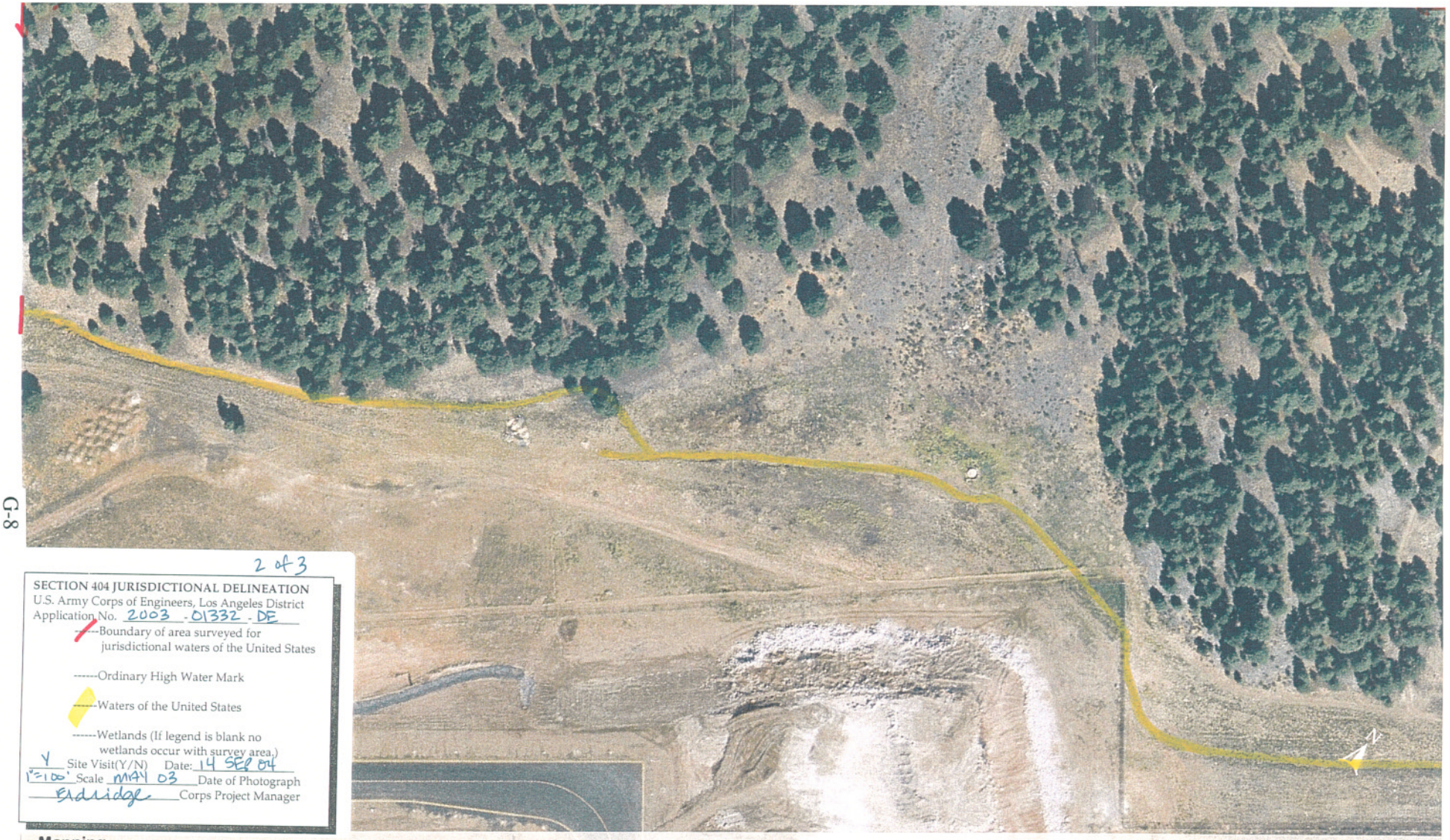
Y Site Visit(Y/N) Date: 14 SEP 04
1"=100' Scale MAY 03 Date of Photograph
Eldridge Corps Project Manager

Mapping
May 2003
Source: City of Flagstaff

Figure A

0 125 250 500 750 1,000 Feet

1:1,200
1 inch equals 100 feet

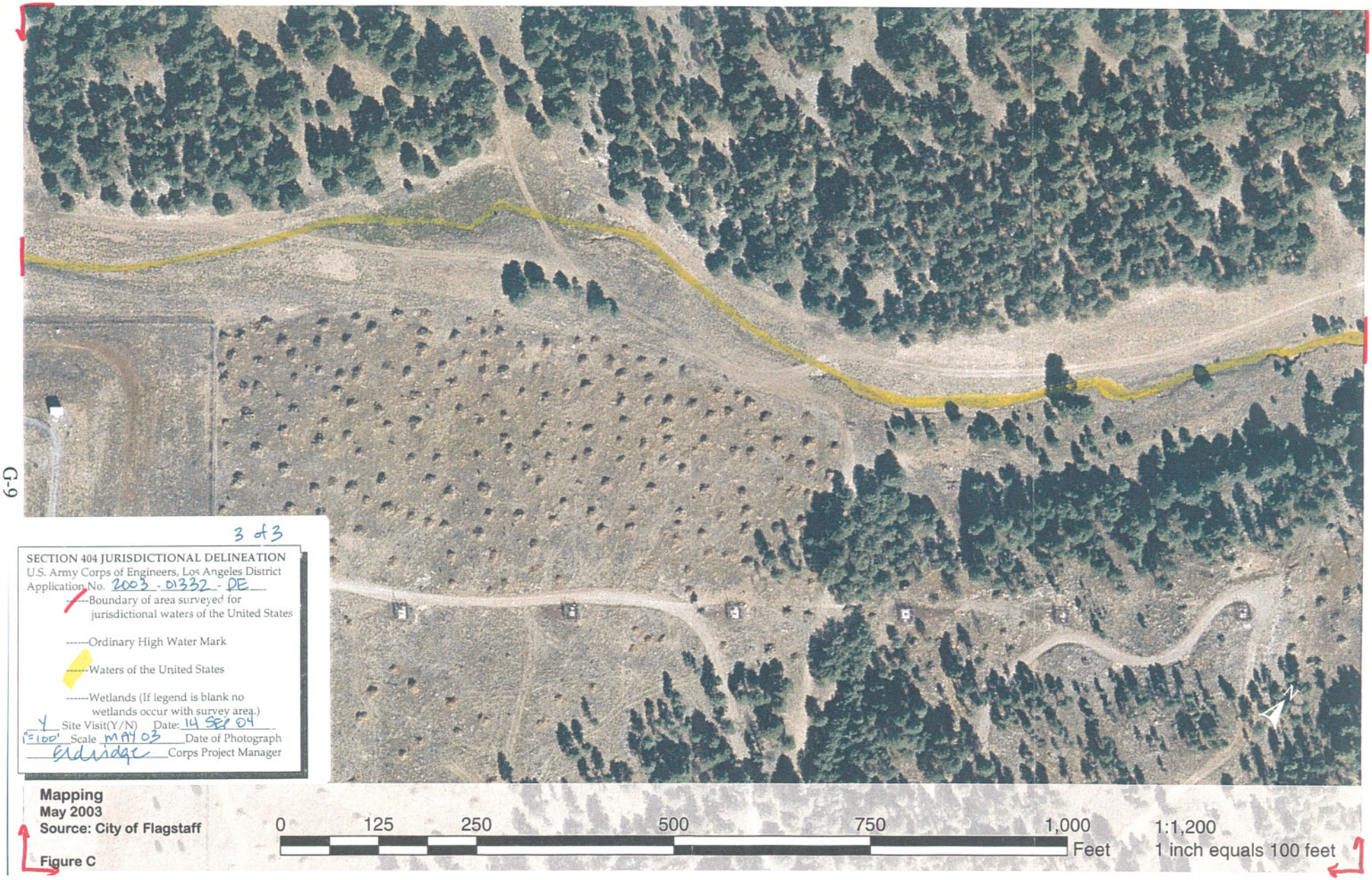


Mapping
May 2003
Source: City of Flagstaff

0 125 250 500 750 1,000 Feet

1:1,200
1 inch equals 100 feet

Figure B



Mapping
May 2003
Source: City of Flagstaff

0 125 250 500 750 1,000 Feet

1:1,200
1 inch equals 100 feet

Figure C

FLAGSTAFF
PULLIAM AIRPORT

Appendix H

WORKSHOPS AND MEETINGS

Appendix H
WORKSHOPS AND MEETINGS

The purpose of this appendix is to provide information regarding the public information workshop and meetings held during the preparation of this Environmental Assessment (EA).

PUBLIC INFORMATION WORKSHOP

A public information workshop was held on Wednesday, July 30, 2003 at City Hall Council Chambers in Flagstaff. The purpose of the workshop was to involve the community in the proposed airport improvement project. Notices advertising the workshop were published within the Arizona Daily Sun newspaper. A copy of the meeting advertisement, sign in sheets documenting attendance at the workshop, and copies of the comments received during the workshop are contained in the following pages.

MEETINGS

Two meetings were held during the preparation of the EA to address the concerns raised by the National Park Service in their scoping response letters. These meetings were attended by representatives from the City of Flagstaff, the National Park Service, the Federal Aviation Administration, and the consultants that prepared this study. The purpose of the meetings was to discuss the manner in which the

National Park Service concerns would be addressed within the EA and to provide an opportunity for open dialogue regarding the proposed airport improvements. Attendance records from these meetings are included within this appendix.

During the first meeting the analysis methodology was presented and the various noise metrics which were planned to be utilized were discussed. Based on the results of the meeting the methodology was refined. The purpose of the second meeting was to present the initial analysis results. This meeting resulted in a slight expansion of the analysis efforts to include additional locations within various National Park units.

Arizona Daily Sun July 10, 2003

NOTICE TO PREPARE ENVIRONMENTAL ASSESSMENT FOR FLAGSTAFF PULLIAM AIRPORT AND CONDUCT PUBLIC SCOPING WORKSHOP

The City of Flagstaff is currently preparing an Environmental Assessment (EA) to study potential environmental and related impacts that may result from the proposed airfield improvements at Flagstaff Pulliam Airport in Flagstaff, Arizona. The proposed improvements to be assessed in the EA include: potential extension of Runway 3-21 and parallel taxiway to 8,800 feet, extension to runway and taxiway lighting systems, replacing navigational lighting systems, adjusting approach lighting systems, clearing and grading a small portion of US Forest Service property, and cutting and filling extension areas. The purpose of the runway extension is to provide a runway length capable of accommodating the larger business jets and scheduled commercial regional jets forecasted to use the airport, and to enhance the operational safety of aircraft using the airport.

Alternatives assessed in the EA may include, but may not be limited to: No Action; extensions to alternative runway ends; and off-airport alternatives.

In accordance with the requirements of the National Environmental Policy Act (NEPA), a Public Scoping Meeting for the EA will be held from 6:00 p.m. - 7:30 p.m. on Wednesday, July 30, 2003. The Public Scoping Workshop will be held in the Flagstaff City Hall Council Chambers located at 211 W. Aspen, Flagstaff, Arizona.

The purpose of the scoping meeting is to involve the community in the proposed airport improvement project. Community involvement is intended to achieve a dual purpose. The first purpose is to educate the public about the need for the proposed project and to inform them about the alternatives under consideration. The second purpose is to provide members of the public a formal opportunity to express their views about the project.

If you are unable to attend the Public Scoping Meeting, we encourage you to submit written comments and recommendations by August 15, 2003, to Ms. Karen Apple at Michael Baker Jr., Inc. 1313 East Osborn Road, Suite 150, Phoenix, Arizona 85014, phone at 602-798-7555, facsimile to 602-279-1411, or e-mail at kapple@mbakercorp.com.

FLAGSTAFF
PULLIAM AIRPORT

CITY OF FLAGSTAFF ARIZONA ESTABLISHED 1881

AIRPORT MASTER PLAN & F.A.R. PART 150
NOISE COMPATIBILITY STUDY UPDATE

PUBLIC INFORMATION MEETING ATTENDANCE RECORD

FLAGSTAFF PULLIAM AIRPORT

Meeting: Public Information Meeting #2 Date: July 30, 2003 Time: 6:00 p.m.

EA Scoping Public Workshop Place: Flagstaff City Hall

Please print neatly

NAME	ADDRESS	PHONE #/E-MAIL
1. Mike McDonald	2905 N. Steves	ph.#: 527 0306 e-mail: mcdonald@infomag
2. GIBBS, FRED	1192 W. LI BEN TRAIL	ph.#: 214-9300 e-mail: fredgibbs@uneedspeed.net
3. Roepke, Keith-Dorie	5884 S. OX BOW LOOP	ph.#: 928-779-2613 e-mail: kady@cybertrails.c
4. KORY MADDOW	1310 N. McMILLAN	ph.#: 774-1121 e-mail: azprysvc@aol.com
5. Susan L. Bean	PO Box 1567 · 86002	ph.#: 779-4381 e-mail: Lambeano@aol.com
6. Betsy McCelter	330 S Ash Ln Flag 86004	ph.#: 526-4864 e-mail: birdvest@aol.com
7. Tom Robinson	Grand Canyon Trust	ph.#: 928 774-7488 e-mail: robinson@grandcany
8. Jeremy Christopher	Greater Flagstaff Economic Council	ph.#: 928-779-7658 trust. e-mail: jeremyc@gfec.org
9. Jim McCarthy	1755 W. SEQUOIA DR Flagstaff 86001	ph.#: 928 779 3748 e-mail:
10. Grant Benson	4080 SW Camelot Dr. Lee's Summit, MO 64082	ph.#: (816) 537-6350 e-mail:
11. Orville Wiseman	166 E. Cheyenne Flagstaff AZ 86001	ph.#: 928 525 2108 e-mail:
12.		ph.#: e-mail:
13.		ph.#: e-mail:
14.		ph.#: e-mail:
15.		ph.#: e-mail:
16.		ph.#: e-mail:
17.		ph.#: e-mail:
18.		ph.#: e-mail:
19.		ph.#: e-mail:
20.		ph.#: e-mail:

DRAFT ENVIRONMENTAL ASSESSMENT
PUBLIC WORKSHOP
July 30, 2003

FLAGSTAFF
PULLIAM AIRPORT

Comment Sheet

Please state your comments clearly and concisely regarding the Draft Environmental Assessment:

PLEASE PRINT

COMMENTS: I am concerned that the Study about noise and other impacts doesn't seem to cover a lot of the area which is seriously impacted by noise from the airplanes

Please look more into the noise over Walnut Canyon from Fisher Point east to the Monument.

Please consult with the National Park Service about their preceived impacts <>556-7134

Name: Betsy McKellar
Organization: Friends of Walnut Canyon
Address: 330 S. Ash Ln
Flagstaff AZ 86001

Comments due by **August 15, 2003**. Please mail comments to:

Karen Apple
1313 E. Osborn Rd.
Suite 150
Phoenix, AZ 85014

DRAFT ENVIRONMENTAL ASSESSMENT
PUBLIC WORKSHOP
July 30, 2003

RECEIVED
AUG - 5
MICHAEL BAKER JR., INC.

Comment Sheet

Please state your comments clearly and concisely regarding the Draft Environmental Assessment.

PLEASE PRINT

COMMENTS: The Greater Flagstaff Economic supports the Flagsta Pullian Airport Runway extension. This extension will accomodat Regional Jet aircraft operated by America West Express (preserv existing air service) & other major airlines. The extension will also help to expand commercial air service opportuniti and ensure that corporate aircraft can use the airport. Lack of air service has been a detriment to recent economic development efforts, and the runway extension will help to solve these problems. Not to be forgotten is the improvement of safety for the flying public that the extension will help to create.

Name: Jeremy Christopher
Organization: Greater Flagstaff Economic Coun.
Address: 1300 S. Milton Rd. #125
Flagstaff, AZ 86001

Comments due by **August 15, 2003**. Please mail comments to:

Karen Apple
1313 E. Osborn Rd.
Suite 150
Phoenix, AZ 85014

Sign Ina Sheet 12/14/04

FAA / PARK Service Meeting

Michelle Simmons / AWP / FAA / 310-725-3614
Michelle.Simmons@FAA.Ga

~~Palma~~

Palma Wilson Superintendent FLAGSTAFF NPS 928-526-1157 x 22
palma wilson@nps.

Ray Maguires Michael Baker Corp 412.269.2749 rmaguires@mbakercorp.c

Mike Covalt City of Flagstaff Airport Mgr 928-556-1239 x 16
mcovalt@ci.flagstaff.az

DAVID FITZ COFFMAN ASSOC. 816-524-3500
dfitz@coffmanassociates

Bill MENARD City of FLAGSTAFF, P.W.O. 928-779-7660
WMENARD@CI.FLAGSTAFF.AZ.

PAUL WHITEFIELD NPS FLAGSTAFF MONUMENTS Paul_Whitefield@nps.
928-526-1157-ext 23

Ken McMullen NPS Grand Canyon NP Ken_McMullen@nps.go
928-779-2095

Molly Waller Coffman Associates 816/524-3500

Kate CANNON National Park Service 928-638-7902

Attendance List

Flagstaff Pulliam Airport Environmental Assessment
For Extension of Runway 3-21 to 8,800 Feet and Associated Projects

Meeting: NPS Meeting to Convey Preliminary Results of Supplemental Noise Analysis

Date/Time: January 26, 2005 1:30 pm

Place: City Hall, Council Conference Room

Invitees	Affiliation	In Attendance	Phone
Mike Covalt	Flagstaff-Pulliam Airport Manager		928-556-1234 x10
Bill Menard	City of Flagstaff Public Works Director		928-779-7660
Michelle Simmons	FAA		310-725-3614
Dave Fitz	Coffman Associates		816-524-3500
Jim Harris	Coffman Associates		602-993-6999
Molly Waller	Coffman Associates		816/524-3500
Palma Wilson	National Park Service		928-526-1157 x227
Paul Whitefield	National Park Service		928-526-1157 x235
Ken McMullen	National Park Service		
Kate Cannon	National Park Service		
Joe Alston	National Park Service		
Ray Maginness	Michael Baker Jr.		412-269-2749

U.S Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region
Airports Division

Federal Aviation Administration
P.O. Box 92007
Los Angeles, CA 90009-2007

February 8, 2005

Ms. Palma E. Wilson
U.S. Department of Interior
National Park Service
Superintendent-Wupatki, Sunset Crater Volcano,
and Walnut Canyon National Monuments
6400 N. Highway 89
Flagstaff, Arizona 86004

Dear Ms. Wilson:

**Flagstaff Environmental Assessment
Noise Analysis**

Thank you again for attending the January 26, 2005, briefing about the noise analysis for the Environmental Assessment for proposed improvements at Flagstaff Pulliam Airport. Your comments concerning the addition of one more grid point location within the newer portion of Walnut Canyon National Monument and two more grid points within and adjacent to Sunset Crater National Monument were appreciated. Additional analysis regarding these locations will be included in the environmental documentation. The Walnut Canyon National Monument boundaries will also be updated on the grid point exhibit.

We appreciate your input into the EA process thus far as well as any of your continued efforts as we complete this Environmental Assessment.

Please do not hesitate to contact me at (310) 725-3614 if you have any additional questions.

Original Signed By:
Michelle Simmons

Michelle Simmons
Environmental Protection Specialist
Arizona Standards Section

Cc: Paul Whitfield, NPS
Mike Covalt, City of Flagstaff
Bill Menard, City of Flagstaff
Molly Waller, Coffman & Associates

Molly A. Waller

From: Molly A. Waller

Sent: Wednesday, January 05, 2005 2:29 PM

To: Palma_Wilson@nps.gov; Paul_Whitefield@nps.gov; Ken_McMullen@nps.gov; Kate_Cannon@nps.gov; Joe_Alston@nps.gov

Cc: wmenard@ci.flagstaff.az.us; stevebenson@coffmanassociates.com; Jim Harris; David W. Fitz; michelle.simmons@faa.gov; jake.plante@faa.gov; jim.byers@faa.gov; Molly A. Waller; rmaginness@mbakercorp.com

Subject: Follow-up Meeting Regarding the Flagstaff-Pulliam Airport Environmental Assessment

This email is being sent to you on behalf of Mike Covalt, the Airport Manager for Flagstaff-Pulliam Airport. He is unable to send the email today and asked me to send it for him.

The purpose of this email is to first thank you for attending the briefing with our consultants and FAA on December 14, 2004. We feel the gathering was productive in that it allowed you to gain further insight into the ongoing projects at the airport and it also allowed for input from the National Park Service regarding the noise analysis which is being undertaken for the ongoing Environmental Assessment being prepared for a runway extension at our airport.

Since our meeting on the 14th, our consultants have completed much of the analysis which was discussed. We would like to present some of the initial findings to the various National Park Service staff members to keep the lines of communication open as well as to obtain feedback regarding the preliminary results. Our consultants and various FAA staff will be at the airport on January 26th. We were hoping that this would be a convenient time to meet with you all. The project team is available during either the morning or early afternoon hours. A public hearing is being held that evening for the airport's Part 150 study; therefore, we would need to conclude our meeting with you by mid-afternoon.

We appreciate your input into the EA process thus far and look forward to meeting with you in the near future. Hopefully we have provided you with enough lead time to gather the appropriate individuals to meet with our project team. In order to allow for appropriate meeting space, please RSVP to me (Mike Covalt) as soon as possible and let me know the number of Park Service staff which will attend the meeting. I can be reached via email at mcovalt@ci.flagstaff.az.us or telephone (928) 556-1234 x10.

Thank you!

Mike Covalt
Flagstaff Pulliam Airport Manager

Molly A. Waller

From: David W. Fitz
Sent: Wednesday, January 05, 2005 11:58 AM
To: 'Palma_Wilson@nps.gov'
Cc: Jim Harris; Molly A. Waller; Steve G. Benson; Mike Covalt (mcovalt@ci.flagstaff.az.us); William Menard (wmenard@ci.flagstaff.az.us); 'rmaginness@mbakercorp.com'
Subject: Flagstaff Information Request

Ms. Palma E. Wilson
Superintendent
National Park Service
6400 N. Highway 89
Flagstaff, Arizona 86004

Dear Ms. Wilson:

We received your letter dated November 16, 2004 regarding the ongoing Flagstaff Pulliam Airport Master Plan and Part 150 Study. As we discussed after the Master Plan and Part 150 Planning Advisory Committee meeting on November 22, 2004 and our meeting on December 14, 2004, a majority of the information you requested is available on the Coffman Associates website (www.coffmanassociates.com). For your convenience, we have outlined below where the information you requested can be found within the online Master Plan and Part 150 Study documentation.

1) *The currently approved Airport Layout Plan as well as any Draft Airport Layout Plan currently under development.*

The current Airport Layout Plan is depicted on Exhibit 4A after page 4-2 of the Master Plan. A formal draft of the Airport Layout Plan has not been prepared; however, Exhibit 5A of the Master Plan (after Page 5-2) depicts the draft recommended airport development plan. Exhibit 6B after page 6-4 outlines the anticipated staging of airport improvements over long term.

2) *The existing planned development identified within the NPIAS database.*

We assume that you are referring to projects planned to be undertaken in the short-term (next five-years). These are depicted in yellow on Exhibit 6B.

3) *Any draft environmental analysis documents which would provide further clarification of the proposal and stage of analysis as well as specific impact information.*

Michael Baker Jr. Inc. is in the process of preparing the environmental assessment for an 1,800-foot extension to Runway 3-21. As of the date of this letter, the environmental assessment is still in a very preliminary state. Strategies are currently being undertaken for a number of resource impact categories.

4) *Airport and Airspace Specific Information.*

- *The airport design category by weight, wingspan, and approach speed (existing and proposed)* – Master Plan pg. 5-3; Exhibit 4A after pg. 4-2

- *The runway strength (current and proposed), Runway Length, New Runways, New Terminals* – Master Plan pg. 1-6, 5-2 to 5-7, Exhibit 4A after pg. 4-2
- *Quiet Technology Employed*
- *Any proposed Modification to Design Standards which would impact operations* – Master Plan pg. 5-1 to 5-2
- *Fleet Mix Changes, Type of use – passenger/cargo?* – Master Plan Table 2E on pg. 2-15, 2-22 to 2-24, NEM pg. 3-8 to 3-10
- *Number of aircraft operations (existing, 5-year, 10-year, 20-year)* – Master Plan Table 2G after pg. 2-26
- *Air traffic changes* – Not Applicable
- *New approaches* – Not Applicable
- *Air space considerations* – Master Plan pg. 1-15 to 1-19
- *Level/altitude of flight* – NEM pg. 3-12 to 3-13
- *Depiction of Flight Tracks (with changes)* – NEM Exhibits 3E, 3F, and 3G after pg. 3-12

5) *Administrative Information*:

- *Airport Sponsor:* City of Flagstaff, Owner and Operator

  Contact Information: Michael Covalt, Airport Manager
  6200 S. Pulliam Dr., Suite 205
  Flagstaff, AZ 86001
  (928) 556-1234 ext. 10

- *Airport Owner:* Same as above
- *Airport Environmental or Noise Consultant:*

Environmental Consultant:
Michael Baker Jr. Inc.
1313 East Osborn Road
Suite 150
Phoenix, AZ 85014
(602) 798 7552

Master Plan and Noise Study Consultant:
Coffman Associates, Inc.
4835 E. Cactus Road
Suite 235
Phoenix, AZ 85254
(602) 993-6999

6) *With the recognition that the 65 DNL standard does not apply within national parks, please provide details on the noise assessment criteria used and any special consideration for noise impacts on unique and sensitive Section 4f properties as well as noise effects on wildlife. You may conclude that relative to Section 4f, the lands within the above mentioned national parks are significant and are being used for park purposes. Please describe the anticipated physical taking and/or constructive use (adverse indirect impacts).*

Michael Baker Jr. Inc. is in the process of preparing the environmental assessment for an 1,800-foot extension to Runway 3-21. In addition to the required DNL noise exposure contours analysis, a supplemental noise analysis is being undertaken for national parks in the Flagstaff Pulliam Airport environs. Noise assessments are in the process of being formulated for the supplemental noise analysis.

7) *Noise Analysis*

- *Current and forecast conditions for all reasonable alternatives* – NCP Exhibit 7A, 7B, 7C after pg. 7-4, pg. 7-14 to 7-16
- *Flight track maps, noise contour maps* – NEM Exhibits 3E, 3F, and 3G after pg. 3-12, Exhibit 3H after pg. 3-14, and Exhibit 3K after pg. 3-16, Exhibit 3L after pg. 3-18
- *Mitigation measures in effect and their relationship to the proposal* – NEM pg. 1-20
- *Inclusion of data on background or ambient noise levels* – NEM pg. 3-2 to 3-7
- *Any supplemental noise analysis including any supplements* – (See Response to request 6).

Thank you again for participating in the Master Plan and Part 150 study process. Please do not hesitate to contact myself (816) 524-3500 or Jim Harris (602) 993-6999 if you have any additional questions.

Sincerely,

David Fitz, AICP
Associate

FLAGSTAFF
PULLIAM AIRPORT

Appendix I

PUBLIC HEARING MATERIALS

Appendix I
PUBLIC HEARING MATERIALS

This appendix contains materials relating the public hearing held on the Draft EA. The following materials are included within this appendix.

- Comments received during the public comment period (pages I-3 through I-104)
- Letters sent to various agencies announcing the public hearing as well as the availability of the Draft EA for comment (pages I-105 through I-129)
- Sign-in sheets from the public hearing (pages I-130 through I-131)
- Transcript of comments received during the public hearing (pages I-132 through I-139)
- Affidavit of Publication of the Public Hearing Notice (page I-141)
- Comments received in writing at the public hearing (pages I-143 through I-145)

CHEVALIER, ALLEN & LICHMAN LLP
Attorneys at Law
Commercial Litigation • Aviation Law & Litigation • Environmental Law & Litigation

Gary M. Allen, Ph.D.
John Chevalier, Jr.*
Berne C. Hart
Barbara E. Lichman, Ph.D.
Jacqueline E. Serrao, LL.M.°
Frederick C. Woodruff+

*Retired
+Admitted in New York
°Of Counsel

695 Town Center Drive, Suite 700
Costa Mesa, California 92626
Telephone (714) 384-6520
Facsimile (714) 384-6521
Email cal@calairlaw.com

July 28, 2005

By Facsimile and U.S. Mail
(928)556-1288

Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 South Pulliam Drive, Suite 204
Flagstaff, Arizona 86001

Re: Request for Extension of Comment Period; Flagstaff Pulliam Airport Environmental Assessment

Dear Mr. Covalt:

We represent Lone Tree Investments, LLC ("Lone Tree"). On behalf of Lone Tree, we request an extension to September 26, 2005 to submit comments on the Flagstaff Pulliam Airport Environmental Assessment ("EA"). The additional time will be required to review the voluminous EA and the related lengthy Flagstaff Pulliam Airport Master Plan and Noise Study in order to prepare appropriate comments.

You can contact our office at (714) 384-6520, or by email to cal@calairlaw.com. Thank you for your consideration of this request.

Sincerely,

CHEVALIER ALLEN & LICHMAN, LLP

Berne C. Hart

cc: David B. Kessler, AICP
U.S. Department of Transportation
Federal Aviation Administration
Airports Division, AWP-611.2
P.O. Box 92007
Los Angeles, CA 90009-2007

NORTHERN ARIZONA UNIVERSITY

Office of the President

Northern Arizona University
PO Box 4092
Flagstaff, AZ 86011-4092

928-523-3232
928-523-1848 fax
www.nau.edu

July 29, 2005

Michael A. Covalt
Airport Manager
6200 S. Pulliam Dr., Suite 204
Flagstaff, AZ 86001

Dear Mr. Covalt:

The services offered by Pulliam Airport are vital for the economic vitality of the region especially tourism and education. Northern Arizona University is increasingly being attended by international and out of state students. We are dependent on air service from regional jets to thrive as an institution of choice in the western United States. In addition, Northern Arizona University is attempting to build a conference center and hotel on campus. It is imperative that regional jets are able to use Pulliam Airport so that we can draw conference business from throughout the United States.

Northern Arizona University believes strongly that Flagstaff and all of northern Arizona will benefit from the runway expansion. We are committed to assisting you in this endeavor.

Sincerely,

John D. Haeger
President

Airport Division
City of Flagstaff

August 3, 2005

Mr. Dick Hingson
Grand Canyon Trust
2061 North Fort Valley Road
Flagstaff, AZ 86001

RE: ***Draft Environmental Assessment for Proposed Airport Improvements at Flagstaff Pulliam Airport***

Dear Mr. Hingson:

We would like to take this opportunity to thank you for your interest in the Environmental Assessment (EA) prepared for our proposed airport improvements. It is our goal to provide a succinct document which outlines the potential environmental impacts that could result from the proposed development. Michelle Simmons, of the Federal Aviation Administration, forwarded numerous emails to me that contain comments, questions, and concerns you had regarding the EA. To ensure these comments become part of the public record, we have combined the contents of your emails into the following list of comments. This letter will become part of the public record and the comments stated below will be responded to along with other comments received during the public comment period.

Comments Received From Mr. Dick Hingson, Grand Canyon Trust:

1. "TA" was not sufficiently defined, in this GCNP case. It usually is referenced to x time units per period of time, above some decibel threshold. (You did better define it for the Walnut Creek data, as being average minutes in a 24 hour day above 26 dB.) However, no clear definition is provided for the Grand Canyon TA data from those 36 gridpoints.

2. Regarding "all existing air traffic" over Grand Canyon NP. This also needs a definition/clarification, in that it will need to be based on all sources, i.e., (1) commercial high altitude overflights; (2) general aviation; (3) military; (4) exempted air tours (Hualapai); (5) air tour related (reposition, transport, training, etc.); (6) NPS and FAA "administrative" flights; (7) river rafting support.

3. Examination of Table 4E (right three columns) leads to another dilemma in need of resolution. We noted the following:

- If the TA meant "percentage of time audible", then the data in the "Existing" and "Proposed Action" columns appeared reasonable, because it closely corresponds with data recently made available from the HMMH study published in 2003 (cited in the Grand Canyon Trust letter of 8/15/03, in the DEA). It would roughly accord also with the FICAN study (Volpe and Wyle Labs) published March 18 of this year, and available on the http://overflights.faa.gov website. Note that their TA figures are Per Cent Time Audible and had to do with commercial overflights only (excluding air tours, for example.)

6200 S. Pulliam Dr., Suite 204, Flagstaff, AZ 86001-9580 • (928) 556-1234 • Fax (928) 556-1288

FLAGSTAFF
PULLIAM AIRPORT

- The "Proposed Action" figures are capping out at 100.0 in too many instances to be credible, unless this is "Per Cent of Time Audible Data". The "No Action" figures, conversely, are grossly exceeding 100.0 in some instances, which suggests that they are not "Per Cent Time Audible Data." In other words, there is no correspondence between what is being presented in the "Proposed Action" and the "No Action" columns.

- The data for "Existing", if it is a "minutes per 24 hour day" is suggesting an average of less than 3% time audible. The best available data are saying this figure is closer to 30% time audible, at least. (A 10-fold difference.)

- The Lmax needs also to be a bit better defined. Is this the average Lmax for all flights in the given year, or is it the Lmax for the "peak flight" or "peak day", or what?

4. The pages about cumulative noise analysis for GCNP that I'm concerned about are in the "Environmental Consequences", (chapter 4). Not in "Affected Environment" Section. Please excuse my miss-cite on the chapter. The page cite "4-20" will get you there, anyway.

5. The full technical background, GCNP INM 6.1 study is what we seek now, in order that any oral or written comments may be properly informed. This will save time all around.

Again, we appreciate your comments regarding the document. Please forward any additional comments, in writing, to me at the address on this letterhead.

Sincerely,

Mike Covalt
Flagstaff-Pulliam Airport Manager

Cc: Michelle Simmons, FAA
Molly Waller, Coffman Associates
William L.Menard, City of Flagstaff

SIERRA CLUB
FOUNDED 1892

Grand Canyon Chapter • 202 E. McDowell Rd, Ste 277 • Phoenix, AZ 85004
Phone: (602) 253-8633 Fax: (602) 258-6533 Email: grand.canyon.chapter@sierraclub.org

cc: Molly ✓
Angie
Dave
Benson
Jim

4 August 2005

Michael Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

SENT BY FAX
928-556-1288
JVK 4 Aug 2005

Dear Mr. Covalt:

The Sierra Club has reviewed the just-released draft Environmental Assessment (EA) for the runway extension and other improvements for the Flagstaff Pulliam Airport. This letter addresses some of our concerns.

ROOT CONCERN

The Sierra Club's root concern is that the airport improvements will indirectly affect the natural soundscape at the Grand Canyon. You likely know that the National Park Service and the Federal Aviation Administration are legally mandated to substantially restore natural quiet at the park. Our focus is to prevent further degradation of the park soundscape. If there could be mitigation in this regard, our root concerns would be put to rest.

Specifically, we would like to see Salt Lake City bound commercial service routed east of the Grand Canyon Special Flight Rules Area. A minor realignment of the authorized route for this traffic towards the east would evidently keep noise out of the park, and obviate the need for a detailed cumulative impact analysis on the Grand Canyon, or possibly an EIS.

CONCERNS WITH THE ENVIRONMENTAL ASSESSMENT

We found quantitative errors in the Purpose and Need forecast tables of the EA, particularly for the Grand Canyon National Park. We also found errors in the Supplemental Noise Analysis. The most obvious flaws are these:

Purpose and Need:

- Table 1A contains a 61 percent over-projection of U.S. domestic enplanements for Y2015, compared against best available data (FAA's 2005 Aerospace Forecasts).
- Table 1B contains an approximately 20 percent over-projection of Flagstaff Airline Annual Operations for Y2010. This error is then carried over into Forecast Summary Table 1C, inflating Total Airport Operations for Y2010.
- The air taxi estimate in the EA (see Table 1C) is high compared to the estimate in the master plan. The EA calls out 7600 operations while the master plan calls out 6600 operations.

The inflated projections could be interpreted as an overstated need for the airport expansion. It is our opinion that now is the best time to correct these errors. In this regard, Dick Hingson from the Grand Canyon Trust recently discussed these issues with Planner Molly Waller at Coffman Associates. The discussion revealed that the errors are principally due to erroneous transcriptions from two data tables within a referenced document, i.e., Table 2C and Exhibit 2G in the Forecasts Chapter of Flagstaff Pulliam Airport draft Master Plan.

The errors are apparently compounded by the further failure to update either the referenced master plan or the EA with best available data. Best available data would have been the current FAA Aerospace Forecasts FY 2005-2016 (March 2005) and the current FAA Terminal Area Forecasts 2004-2020 (March 2005). The Master Plan only references the outdated FAA's Aerospace Forecasts-Fiscal Years 2002-2013, published in March 2002, and the outdated FAA Terminal Area Forecasts 2001-2015. Both the Airport Master Plan's and the EA forecasts are therefore now at least three years out of date.

Grand Canyon Cumulative Noise Impacts (Supplemental Noise Study):
The purported cumulative noise impacts analysis actually appears to be an incremental noise study. It thus does not comply with Council on Environmental Quality (CEQ) Guidelines Sec. 1508.7, as supplemented by the CEQ's 24 June 2005 Memorandum[1], on Cumulative Impact Statements "Past Actions." Yet the EA presents the supplemental study as a cumulative impacts analysis, which is indeed required in such situations.[2]

Another erroneous but key assumption further appears to underlie this incremental noise analysis. The baseline situation is that there currently is no commercial direct service between Flagstaff and Salt Lake City. There is no record of any such service being imminently developed or planned, absent a lengthened runway. Therefore, it was inappropriate to factor such service into the No Action Alternative. (See EA's pre-stipulations, Sec. 3.5.) This had the effect of comparing non-existent flights against the flights likely under the Proposed Alternative.

A credible cumulative impacts analysis would require, at minimum, the comparison of a No Action Alternative using *no* Flagstaff-Salt Lake City commercial flights, against the Proposed Action Alternative, which is specifically to foster such flights, using regional jets.

There are other problems with the EA, which will be addressed in the normal comment period. However, the above problems, taken together, are serious enough to justify the City of Flagstaff and/or the FAA withdrawing the EA at this time, until they can be remedied.

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[1] CEQ, "Guidance on the Consideration of Past Actions on Cumulative Impact Analysis", June 24, 2005 (available on the web at http://ceq.eh.doe.gov/nepa/regs/Guidance_on_CE.pdf)

[2] See *Grand Canyon Trust vs. FAA*, cited in the Grand Canyon Trust's scoping letter of 15 August 2003, a case pertaining to the St. George, Utah proposed Replacement Airport. We referred to this case in our comments re this particular Flagstaff project (13 August 2003).

REQUEST: We ask that the draft EA be temporarily withdrawn until at least these gross errors are corrected. The EA consideration process could then be resumed, allowing time meanwhile for the airport master plan's forecasts to be properly updated and confirmed. This will be useful information for the Flagstaff City Council. The public is entitled to a professional environmental document, even in draft.

We also have two additional requests:

- The comment period should not commence before the Master Plan becomes properly updated, particularly if it is being referenced in the EA. Therefore, we request an extension of any comment period to 30 days after an updated Master Plan could be approved. The city council addresses this issue on 16 August so the EA comment extension would be 16 September 2005.
- We also request that there be a special seminar, for all interested members of the public, concerning the Supplemental Noise Analysis. This could most conveniently be scheduled about 4:30 p.m., immediately preceding the 6:00 p.m. start to the 18 August Public Hearing and Workshop on the EA. That would allow for some collective public education on this particular aspect of the EA. The seminar, as with any proper supplemental noise analysis, would address numerous specific Park concerns contained within the Grand Canyon Trust scoping letter of 15August 2003.

SUMMARY

There are significant errors in the environmental assessment, especially as it affects the Grand Canyon. We suggest the mitigation of routing Flagstaff – Salt Lake City flights east of the Grand Canyon Special Flight Rules Area. To comply with the National Environmental Policy Act, the EA must be accurate and complete. We also believe that the Flagstaff – Salt Lake City impacts on the Grand Canyon would trigger the need for an environmental impact statement if they are not mitigated.

Please consider this letter part of our official comments on the Environmental Assessment, which we will supplement during the course of the comment period.

We have included exhibits to illustrate the problems with the three Purpose and Need tables we earlier referenced, compared against two tables in the referenced master plan.

Sincerely yours,

Jim McCarthy, vice chairman
Sierra Club - Grand Canyon Chapter
928-779-3748

Attachments:

1. EA: Table 1A: Historical and Forecast Enplanements
2. EA: Table 1B: Airline Fleet Mix and Operations Forecast
3. EA: Table 1C: Summary of Aviation Forecasts
4. Master Plan: Table 2C: Enplanement Market Share
5. Master Plan: Exhibit 2G: Summary of Aviation Activity Forecasts

cc: Michelle Simmons, Environmental Protection Specialist
Federal Aviation Administration
Mail Stop: AWP 623.4
PO Box 92007
Los Angeles, CA 90009-2007
FAX: 310-725-6849

(EA)

service purposes and will be used to define the number of future commercial service aircraft operations.

TABLE 1A
Historical and Forecast Enplanements
Flagstaff Pulliam Airport

Year	Enplanements	U.S. Domestic Enplanements (millions)	Flagstaff Pulliam Airport Market Share
1980	14,877	287.9	0.0052%
1981	14,784	274.4	0.0054%
1982	15,319	286.0	0.0054%
1983	13,000	308.1	0.0042%
1984	19,089	333.8	0.0057%
1985	19,140	369.9	0.0052%
1986	23,203	404.7	0.0057%
1987	41,463	441.2	0.0094%
1988	47,006	441.2	0.0107%
1989	51,891	443.6	0.0117%
1990	51,687	456.6	0.0113%
1991	48,304	445.9	0.0108%
1992	49,508	464.7	0.0107%
1993	42,262	470.4	0.0090%
1994	41,138	511.3	0.0080%
1995	39,213	531.1	0.0074%
1996	47,171	558.1	0.0085%
1997	46,704	579.1	0.0081%
1998	39,573	592.1	0.0067%
1999	36,656	613.3	0.0060%
2000	34,483	640.5	0.0054%
2001	31,370	627.5	0.0050%
2002	38,455	574.5	0.0065%
2003	36,400	587.9	0.0062%
2004	40,064	NA	NA
FORECAST ENPLANEMENTS			
2005	57,851	680.6	0.0085%
2010	81,540	815.4	0.0105%
* 2015	126,650	1,464.3	0.0125%

Source: Coffman Associates, *2005 Flagstaff Pulliam Airport Master Plan*
* Estimated enplanements as of February 9, 2005

Table 1B presents the commercial service fleet mix and anticipated operations forecast through the year 2015. Due to the increased seating available on the regional jet, the number of future operations with the proposed airport improvements is less than what would be expected if the regional jet was not able to utilize the airport. If the airport isn't upgraded to accommodate the regional jet, it is anticipated that commercial

(EA)

airline service would be provided utilizing smaller turboprop aircraft. Due to the smaller seating capacities of these aircraft, additional operations would be required to meet the forecasted enplanement demand.

TABLE 1B
Airline Fleet Mix and Operations Forecast
Flagstaff Pulliam Airport

Fleet Mix Seating Capacity	Actual 2003	Forecast 2010	Forecast 2015
60+	0%	0%	10%
45-59	0%	100%	80%
35-44	100%	0%	10%
20-34	0%	0%	0%
10-19	0%	0%	0%
Seats per Departure	37.0	50.0	50.7
Boarding Load Factor	63.0%	59%	60%
Enplanements per Departure	23.3	25.0	26.4
Annual Enplanements	36,400	81,540	126,650
Annual Operations	3,118	6,600	8,200

Source: Coffman Associates, *2005 Flagstaff Pulliam Airport Master Plan*

General Aviation Demand

An airport's activity is typically measured by the number and type of based aircraft and the number and type of operations (an operation is defined as one takeoff or one landing). Based aircraft at Flagstaff Pulliam Airport in 2003 included 99 single-engine aircraft, seven multi-engine piston aircraft, seven turboprops, one jet, and two helicopters. Currently, based aircraft include 110 single-engine, six multi-engine, 6 turboprop, and three helicopters. **Table 1C** provides a breakdown of the airport's based aircraft by type.

Before preparing a forecast of future general aviation operations at the airport, one must have an understanding of the type and number of operations which currently occur at the airport. While Flagstaff Pulliam Airport is equipped with an airport traffic control tower (ATCT), it is not a 24-hour tower, so ATCT counts provided will not be all-inclusive of operations at the airport. During the preparation of the 2005 Airport Master Plan, FAA flight plan records for Flagstaff Pulliam Airport were reviewed for a four-month period from September 1 through December 31, 2002 to supplement the ATCT operational counts. The flight plan records provide information regarding aircraft type, owner, date and time of flight, as well as the origin for arrivals and the destination for departing operations. This information was used to determine the total 2002 operations at the airport.

(EA)

An estimate of the annual operations at Flagstaff Pulliam Airport is included in **Table 1C**. The general aviation operations are broken into two types - itinerant and local. A local operation is a takeoff or landing performed by an aircraft that operates within sight of the airport, or which executes simulated approaches, or "touch-and-go" operations at the airport. Itinerant operations are those performed by aircraft with a specific origin or destination away from the airport.

Based on the existing activity at the airport, forecasts of future activity were prepared. During the preparation of these forecasts, a number of factors were evaluated including historical operations at the airport, forecasts prepared by the FAA and ADOT, and forecasts prepared during previous master planning efforts at the airport. **Table 1C** presents the results of this analysis for the years 2005, 2010, and 2015.

TABLE 1C
Summary of Aviation Forecasts
Flagstaff Pulliam Airport

	Actual	*Forecasts*	
	2003	2010	2015
ANNUAL OPERATIONS			
General Aviation			
Itinerant	25,541	32,200	34,600
Local	15,363	20,800	21,900
Airline	3,118	6,600	8,200
Other Air Taxi	6,376	7,600	7,100
Military	955	800	800
TOTAL OPERATIONS	51,353	68,000	72,600
BASED AIRCRAFT			
Single-engine	99	110	116
Multi-engine	7	8	8
Turboprop	7	8	9
Jet	1	2	4
Helicopter	2	3	3
TOTAL BASED AIRCRAFT	116	131	140

Source: Coffman Associates, *2005 Flagstaff Pulliam Airport Master Plan*

1.3.2.3 Facility Requirements

The previous sections outlined the existing and forecast activity at Flagstaff Pulliam Airport. Of critical importance to the proposed action is the transition of the commercial airline fleet from turboprop aircraft to regional jets as well as the use of business jets at the airport. The following sections outline the need for each of the proposed airport improvements based upon FAA safety and design standards.

(MP) COMPARE WITH EA TABLE 1A

TABLE 2C
Enplanement Market Share
Flagstaff Pulliam Airport

Year	Annual Enplaned	U.S. Domestic Enplanements (millions)[1]	FLG % Market Share
1980	14,877	287.9	0.0052%
1981	14,784	274.7	0.0054%
1982	15,319	286.0	0.0054%
1983	13,000	308.1	0.0042%
1984	19,089	333.8	0.0057%
1985	19,140	369.9	0.0052%
1986	23,203	404.7	0.0057%
1987	41,463	441.2	0.0094%
1988	47,006	441.2	0.0107%
1989	51,891	443.6	0.0117%
1990	51,687	456.6	0.0113%
1991	48,304	445.9	0.0108%
1992	49,508	464.7	0.0107%
1993	42,262	470.4	0.0090%
1994	41,138	511.8	0.0080%
1995	39,218	531.1	0.0074%
1996	47,171	556.1	0.0085%
1997	46,704	579.1	0.0081%
1998	39,573	592.1	0.0067%
1999	36,656	613.3	0.0060%
2000	34,483	640.5	0.0054%
2001	31,370	627.5	0.0050%
2002	37,257	574.5	0.0065%
2003	36,400	587.9	0.0062%
DECLINING SHARE PROJECTION			
2010	48,924	815.4	0.0060%
2015	54,406	989.2	0.0055%
* 2025	65,894	1,464.3	0.0045%
CONSTANT SHARE PROJECTION			
2010	61,155	815.4	0.0075%
2015	74,190	989.2	0.0075%
* 2025	109,822	1,464.3	0.0075%
INCREASING MARKET SHARE			
2010	85,617	815.4	0.0105%
2015	123,650	989.2	0.0125%
* 2025	226,967	1,464.3	0.0155%

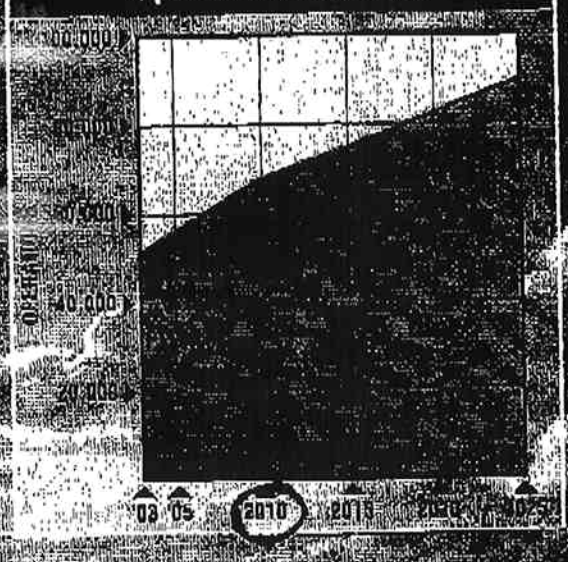
[1] FAA Aerospace Forecasts FY 2002-2013; FAA ADO-02-01, March 2002.
Years 2015 and 2025 extrapolated by Coffman Associates.

(MP) COMPARE WITH EA TABLES 1C AND 1B

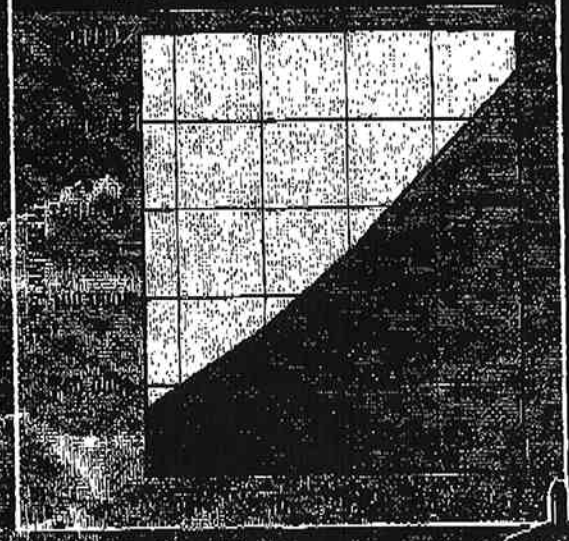
SUMMARY OF AVIATION ACTIVITY FORECASTS

CATEGORY	Actual 2002	Actual 2003	Forecast 2010	Forecast 2015	Forecast 2025
Annual Operations					
General Aviation					
Itinerant	[illegible]	25,541	[illegible]	[illegible]	[illegible]
Local	[illegible]	15,363	[illegible]	[illegible]	[illegible]
Total General Aviation	[illegible]	40,904	[illegible]	[illegible]	[illegible]
Airline	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Other Air Taxi	4,963	6,376	[illegible]	[illegible]	[illegible]
Military	824	955	[illegible]	[illegible]	[illegible]
Total Operations	53,593	51,363	[illegible]	[illegible]	[illegible]
Annual Enplanements					
Enplaned Passengers	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Based Aircraft					
Single Engine	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Multi-Engine	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Turboprop	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Jet	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rotorcraft	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Based Aircraft	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Annual Air Cargo					
Total Air Cargo (tons)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Operations Forecast



Enplanements Forecast



FLAGSTAFF PULLIAM AIRPORT

Exhibit 2G
FORECAST SUMMARY MP

Airport Division
City of Flagstaff

August 5, 2005 By Facsimile and U.S. Mail

Mr. Berne C. Hart
Chevalier, Allen & Lichman, LLP
695 Town Center Drive Ste. 700
Costa Mesa CA 92626

Re: Request for Extension of Comment Period; Flagstaff Pulliam Airport Environmental Assessment

Dear Mr. Hart:

I am in receipt of your July 28, 2005, letter on behalf of Lone Tree Investments, LLC ("Lone Tree") requesting an extension to the comment period for the Flagstaff Pulliam Airport Environmental Assessment (EA), the Master Plan and Noise Study.

We regret that we are unable to grant your request. Lone Tree has had more than ample time to review the EA and related documents and to provide comments. Lone Tree had a representative to the Planning Advisory Committee (PAC) for the Master Plan and FAR Part 150 Noise Study. Those documents were developed over a period of two years and were the subject of four meetings of the PAC, as well as four public workshops, a public hearing and a public comment period, all of which are completed.

According to our records, Lone Tree's representative attended only one meeting of the PAC but, nonetheless, received all of the relevant documents. The projects contained within the Draft EA were refined during this master planning process and were evaluated during the FAR Part 150 study process.

In closing, we would like to point out that the only document currently subject to a formal comment period is the EA. Your letter will be incorporated into the comments regarding the EA.

Thank you for your interest in the Flagstaff Pulliam Airport.

Sincerely,

Michael A. Covalt
Airport Manager

Cc: Molly Waller, Coffman Associates
David B. Kessler, AWP 611.2

FLAGSTAFF
PULLIAM AIRPORT

6200 S. Pulliam Dr., Suite 204, Flagstaff, AZ 86001-9580 • (928) 556-1234 • Fax (928) 556-1288

2625 N. Marion Drive
Flagstaff, AZ 86001

August 8, 2005

To: Mike Covalt, Airport Manager

Cc: Flagstaff City Council

From: Dick Hingson Dick Hingson

Re: **Flagstaff Pulliam Airport, Draft Master Plan/FAR Part 150 Noise Study**

I am providing these comments today with reference to the Draft Airport Master Plan and FAR Part 150 Noise Study, in connection with the Work Session today on these documents, preparatory to their adoption by the Council later this month, and their incorporation by reference into the pending draft Environmental Assessment on the Flagstaff Pulliam Airport Improvements.

These are presented by me as an individual, not on behalf of any entity or organization.

By way of background, I am a Member of the Grand Canyon Working Group (GCWG), which, is the entity beginning its work towards the resolution of the issues surrounding substantial restoration of the natural quiet of the Grand Canyon National Park, under auspices of the U.S. Center for Environmental Conflict Resolution. For the GCWG, I represent the Grand Canyon Trust and the National Parks Conservation Association (NPCA).

I have developed expertise in noise/aviation issues and research, since the mid-nineties, in staff, volunteer and contract capacities, with a variety of national organizations, including the Sierra Club, NPCA, the Grand Canyon Trust, and The Wilderness Society. My particular area of focus has been national parks impacted by steadily increasing aviation noise

I can be reached at the Grand Canyon Trust, if there are any questions, at 928-774-7488.

Prepared August 8, 2005 – for presentation to Flagstaff City Council Work Session
By Dick Hingson Dick Hingson

Findings: Flagstaff Pulliam Airport, draft Master Plan/FAR Part 150 Noise Study

The Master Plan and Part 150 Noise Study are key draft supporting documents on the August 8 Work Session agenda of the City Council, in terms of the draft EA also being commented on. A great deal of work has gone into them, and they were the subjects of a public workshop last year. However, since the EA relies on them now, it is important to take another look at their accuracy and consistency.

1. Their forecasts, as with the EA, are *not* based on currently best available data. They are outdated now, by three years. They should be updated with the FAA's 2005-2016 Aerospace Forecasts (March, 2005), and the FAA's 2004-2020 Terminal Area Forecasts (March, 2005).

2. Just as the EA does not correspond with the Master Plan's data on key points, we find similar inconsistencies with the Noise Study's Tables 2E and 2L, when compared against the same Tables in the Master Plan. Though titled and numbered and similarly formatted, their internal data diverges significantly. No attempt to reconcile the average 12 percent or more internal deviations is evident.

   Substitution of best available (newest: March 2005) data thus appears the best remedy to quickly solve this concern "across the board", with all tables and forecasts revised accordingly.

3. A similar degree of unexplained inconsistency exists in the next chapter of the Master Plan, on "Aviation Noise." Here the inconsistency applies to Table 3C, "Operations Summary", which forecasts various types of Y2025 operations, at levels about 12 percent higher than those cited in Exhibit 2G (though, for *airline* operations only, the Table and the Exhibit correspond.) It's not clear what possible errors these substantial inconsistencies may suggest, re any noise impact analysis undertaken in the Noise Study or, indeed, for the EA, which may have utilized said data. This requires auditing, with explanations as necessary.

CONCLUSION:
The Master Plan and the Part 150 Noise Study forecasting chapters thus appear internally inconsistent, when various forecast tables/Exhibits are compared against each other. (See attached Exhibits for samples.) It is not known whether this has affected the noise analysis. In any event, best available data has not been presented, the forecasts appearing to be at least three years old.

Two other items call for correction.

- Part 150 Noise Study:

A major recent Court of Appeals (D.C. Circuit) decision, *City of Naples Airport Authority vs. FAA (case 03-1308, decided June 3, 2005)* has invalidated much of the Naples, Florida airport discussion on Page 5-15, and in its corresponding chart on Page 5-17. This important new case law needs to be incorporated in the final document.

- The EA (p. 4-14) says, accurately, that the Grand Canyon National Park is, at closest, 55 miles from Flagstaff. But the Master Plan (p. 2-6) claims the distance is 99 miles, when measured from Flagstaff to the Grand Canyon National Park airport! The Master Plan is clearly incorrect; its figure needs to be reduced or explained.

EXHIBITS:

- **Master Plan: Table 2E "Airline Fleet Mix and Operations Forecast", vs.**
- **Part 150 Noise Study: Table 2E "Airline Fleet Mix and Operations Forecast"**

- **Master Plan: Table 2L: "Air Taxi and Military Operations", vs.**
- **Part 150 Noise Study: "Air Taxi and Military Operations"**

- **Master Plan: Exhibit 2G: "Summary of Aviation Activity Forecasts", vs.**
- **Part 150 Noise Study: Table 3C: "Operations Summary"**

MASTER PLAN : TABLE 2E

the Mesa fleet in 2005 revealed that the airline has expanded its airline fleet by 43 percent to 180 aircraft. All of this growth has been in regional jets as turboprop aircraft in the fleet have declined. The fleet now included 34 ERJ-145s, 56 CRJ-200s, 32 90-seat CRJ-900s, and 15 70-seat CRJ-700s. The Dash 8s in the fleet have declined by one to 16, and the Beech 1900s have declined by 20 to 25.

It should also be noted that only six of the 16 Dash 8s are available for use as America West Express. The remainder are committed to Mesa's United Express operation in Denver.

SkyWest is an airline that has served Flagstaff in the past, and is an example of an airline that could provide service again in the future. According to its website, SkyWest is also adding more CRJ's while reducing its turboprop fleet.

The airline has 125 CRJ-200s and 32 CRJ-700s with firm orders for 20 more CRJs over the next four years. At that same time, it has reduced the Embraer 120 turboprop fleet to 62 aircraft.

Table 2E presents the fleet mix by seating capacity in 2002 and 2003, as well as a projection for the future. The table shows that the fleet mix into Flagstaff has been entirely comprised of the 37-seat Dash 8's in 2002.

TABLE 2E
Airline Fleet Mix and Operations Forecast
Flagstaff Pulliam Airport

	ACTUAL		FORECAST		
Fleet Mix Seating Capacity	**2002**	**2003**	**2010**	**2015**	**2025**
COMMUTER AIRLINES					
60+	0.0%	0.0%	0.0%	10.0%	15.0%
45-59	0.0%	0.0%	100.0%	80.0%	75.0%
35-44	100.0%	100.0%	0.0%	10.0%	10.0%
20-34	0.0%	0.0%	0.0%	0.0%	0.0%
10-19	0.0%	0.0%	0.0%	0.0%	0.0%
Totals	100.0%	100.0%	100.0%	100.0%	100.0%
Seats/Departure	37.0	37.0	50.0	50.7	51.7
Boarding Load Factor	60.6%	63.1%	59.0%	0.60%	0.62%
Enplanements/Departure	22.4	23.3	25.0	26.4	28.4
Annual Enplanements	37,257	36,400	82,000	124,000	227,000
Annual Departures	1,662	1,559	2,780	4,076	7,082
Annual Operations	3,324	3,118	5,560	8,152	14,164

The forecast indicates the probable conversion by Mesa to 50-seat RJs by 2010, provided the runway is capable of accommodating the aircraft by then. If

PART 150 NOISE STUDY
TABLE 2E

TABLE 2E
Airline Fleet Mix and Operations Forecast
Flagstaff Pulliam Airport

	ACTUAL		FORECAST			
Fleet Mix Seating Capacity	**2000**	**2001**	**2005**	**2010**	**2015**	**2025**
COMMUTER AIRLINES						
60+	0.0%	0.0%	0.0%	0.0%	10.0%	15.0%
45-59	0.0%	0.0%	0.0%	100.0%	80.0%	75.0%
35-44	58.0%	79.0%	100.0%	0.0%	10.0%	10.0%
20-34	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
10-19	42.0%	21.0%	0.0%	0.0%	0.0%	0.0%
Totals	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Seats/Departure	29.4	33.2	37.0	50.0	50.7	51.7
Boarding Load Factor	50.1%	52.5%	50.0%	50.0%	52.0%	55.0%
Enplanements/Departure	14.7	17.4	18.5	25.0	26.4	28.4
Annual Enplanements	34,483	31,370	51,000	82,000	124,000	227,000
Annual Departures	2,340	1,799	2,757	3,280	4,703	7,983
Annual Operations	4,680	3,598	5,513	6,560	9,407	15,966

The forecast indicates that little change in the fleet mix is anticipated in the immediate term, however, the conversion by Mesa to the 50-seat RJs will be in place by 2010, provided the runway is capable of accommodating the aircraft by then. If it is, at least one additional airline can be expected to follow suit. Over the planning period, the airport could experience some service by RJs with seating capacities from 30 to 70 seats, however, the 50-seat aircraft will still make up the majority of the aircraft serving Flagstaff in the future.

The fleet mix projections have been used to calculate the average seats per departure, which (after applying a load factor) were used to project annual departures. The boarding load factor for Flagstaff Pulliam Airport may fluctuate with periodical changes in air service, but is expected to remain around 50 percent through at least the short term as the aircraft upgrade occurs, and if there are new entries into service. After that, the load factor can be expected to rise slightly. Annual operations were then calculated based on boarding load factors. **Table 2E** summarizes the fleet mix and operations forecast for Flagstaff Pulliam Airport.

GENERAL AVIATION FORECASTS

General aviation is defined as that portion of civil aviation which encompasses all portions of aviation except commercial operations. To determine the types and sizes of facilities that should be planned to

MASTER PLAN - TABLE 2L

TABLE 2L
Air Taxi And Military Operations
Flagstaff Pulliam Airport

	Air Taxi	Military
ACTUAL		
2000	2,790	327
2001	4,525	688
2002	5,965	824
2003	6,376	955
FORECAST		
2010	6,600	800
2015	7,100	800
2025	8,200	800

MILITARY

Military activity accounts for the smallest portion of the operational traffic at FLG. Since 1990, annual military operations have fluctuated between a high of 1,088 in 1990 and a low of 301 in 1997. Between 1990 and 2002, military operations have averaged 522 annually. While the percentage fluctuates from year-to-year, itinerant operations average two-thirds of all military operations at the airport.

The **1991 Master Plan** projected military operations to average 400 annually. For the purposes of this Master Plan update, military operations were projected to average 800 per year over the planning period. **Table 2L** includes the military forecast.

SUMMARY

This chapter has outlined the various activity levels that might be anticipated over the planning period. Airline passenger activity has good potential for growth, provided the airport is prepared to accommodate the expected transition by the primary commuter airlines to a full fleet of regional jets. This, coupled with additional flights to more destinations and relatively competitive air fares, could allow FLG to re-capture some of its market that is currently driving to Phoenix Sky Harbor Airport.

Based aircraft at FLG have not grown appreciably in the past decade. This can be attributed, at least in part, to no net change in the number of hangar spaces available. There is a demand for hangars that is not being met. Should additional hangars be developed, growth in based aircraft can be expected. General aviation operations will also follow suit, although some growth in itinerant operations can be expected regardless.

Air cargo activity will be dependent somewhat on the types of aircraft that the airlines utilize in the future. Other air taxi operations have grown at FLG in the aftermath of September 11, 2001. They can be expected to continue to grow with increased business use of general aviation. Military activity is expected to continue to be a small part of the mix at Flagstaff Pulliam Airport.

Exhibit 2G is a summary of the aviation forecasts prepared in this chapter. Actual activity is included for 2001 as well as estimated activity for 2002 based upon extrapolations from nine months of data. This column will be updated to actual figures prior to completion of this master plan.

PART 150 NOISE STUDY
TABLE 2L

to be expected with the type and size of commuter aircraft that have been serving Flagstaff Pulliam Airport. With the potential for service by regional jets, there will be opportunities for increases in air cargo. The cargo potential was projected to increase at a rate similar to the seating capacity and frequency of airline flights in the future. This is reflected in **Table 2K**, where air cargo is projected to grow to 4,300 tons over the planning period.

OTHER AIR TAXI

The air taxi category includes aircraft involved in on-demand passenger or small parcel transport. The control tower counts air taxi in the same category as commuter airline operations. Since the airport keeps track of airline operations from the airline landing reports, the commuter operations can be subtracted from the tower count to determine the air taxi operations.

In 2000, the tower counted 7,470 air taxi and commuter operations. The commuter airlines reported a total of 2,340 landings for a total of 4,680 annual operations. Thus, there were 2,790 other air taxi operations. In 2001, there were 8,123 operations in the tower count, and 3,598 were by the commuters, leaving 4,425 other air taxi operations.

A review of monthly operational statistics reveals that other air taxi operations have risen substantially since September. This suggests September 11 may have been a factor in a nearly 50 percent increase in air taxi operations at Flagstaff Pulliam Airport. Air taxi operations are estimated to total 6,800 in 2002. While not being experienced at every airport across the country, some are experiencing an increase in air taxi use by businesses for air travel that avoids the security issues at airport terminals.

This growth is not expected to continue to be so pronounced, but growth in general aviation business travel is expected to continue. For this forecast, other air taxi operations are projected to grow at a rate similar to that of general aviation itinerant operations. The air taxi forecasts are presented on **Table 2L**.

TABLE 2L
Air Taxi and Military Operations
Flagstaff Pulliam Airport

	Air Taxi	Military
ACTUAL		
2000	2,790	327
2001	4,525	688
ESTIMATED		
2002	6,800	900
FORECAST		
2005	7,100	800
2010	7,600	800
2015	8,100	800
2025	9,200	800

MILITARY

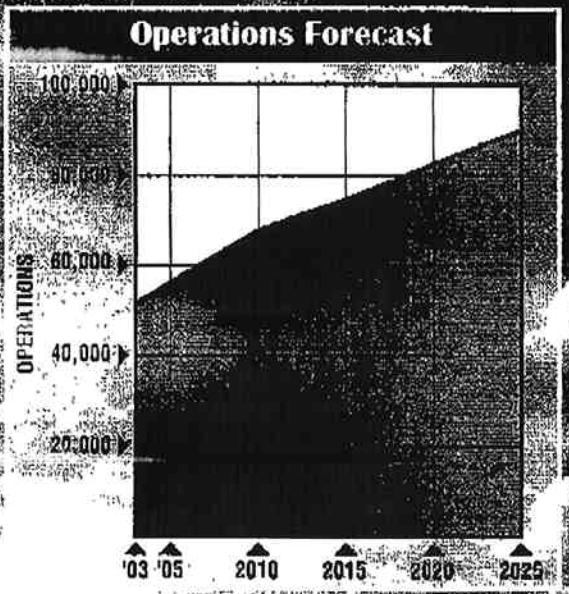
Military activity accounts for the smallest portion of the operational traffic at Flagstaff Pulliam Airport. Since 1990, annual military operations have fluctuated between a high of 1,088 in 1990 and a low of 301 in 1997. Between 1990 and 2002, military operations have averaged 522 annually. While the percentage fluctuates from

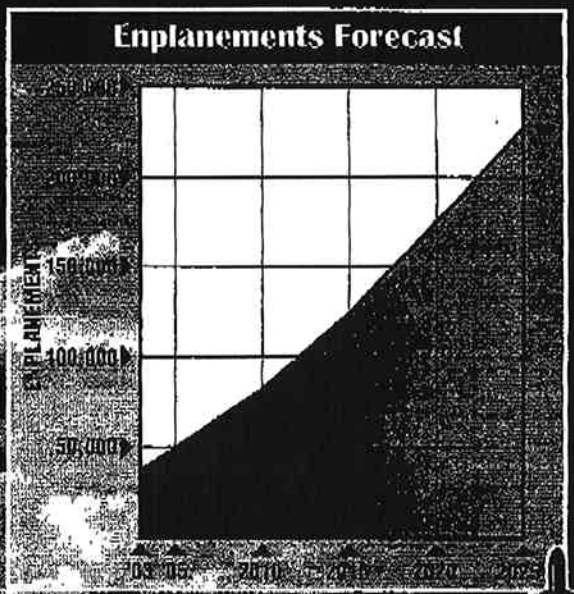
MASTER PLAN - EXHIBIT 2G

02MP09-2G-7/8/05

SUMMARY OF AVIATION ACTIVITY FORECASTS

CATEGORY	Actual 2002	Actual 2003	Forecasts 2010	Forecasts 2015	Forecasts 2025
Annual Operations					
General Aviation					
Itinerant	27,447	25,541	32,200	34,600	39,800
Local	16,033	15,363	20,800	21,900	24,300
Total General Aviation	43,480	40,904	53,000	56,500	64,100
Airline	3,324	3,118	5,600	12,200	14,200
Other Air Taxi	4,965	6,376	6,600	7,100	8,200
Military	824	955	800	800	800
Total Operations	53,593	51,353	66,000	72,600	87,300
Annual Enplanements					
Enplaned Passengers	37,257	35,400	62,000	124,000	227,000
Based Aircraft					
Single Engine	99	99	110	115	125
Multi-Engine	7	7	8	8	8
Turboprop	7	7	8	9	10
Jet	1	1	2	4	7
Rotorcraft	2	2	3	3	4
Total Based Aircraft	116	116	131	139	154
Annual Air Cargo					
Total Cargo (Tons)	960	934	1,200	2,500	4,000





FLAGSTAFF
PULLIAM AIRPORT

Exhibit 2G
FORECAST SUMMARY

PART 150 NOISE STUDY - TABLE 3C

manufacturers. The Flagstaff Pulliam Airport's field elevation is 7,014 feet above mean sea level (MSL) and its average annual temperature is 45.8 degrees Fahrenheit (F).

It is also possible to incorporate a topographic database into the INM which allows the INM to account for the changes in distances from aircraft in flight to elevated receiver locations. Topographic data from the U.S. Geographical Survey was used in the development of the noise exposure contours for Flagstaff Pulliam Airport.

ACTIVITY DATA

Noise evaluations made for the current year (2003) are based on operational counts from the Flagstaff Pulliam ATCT (airport traffic control tower) for calender year 2002, with an adjustment for nighttime operations when the ATCT is closed. Five-year (2008) and long-term (2025) contour sets were prepared based upon forecasts presented in Chapter Two and prepared in the Flagstaff Pulliam Airport Master Plan Update being prepared concurrently with this study. Existing and forecasted annual operations are summarized in **Table 3C**.

TABLE 3C
Operations Summary
Flagstaff Pulliam Airport

		FORECASTS	
Operations	Existing 2003[1]	2008[2]	2025[2]
Itinerant Operations			
Airline	3,324	4,800	14,200
Air Taxi	7,127	7,700	9,900
Military	880	900	900
General Aviation	30,659	35,100	44,600
Local Operations			
General Aviation	17,488	22,000	26,200
Total Operations	***59,478***	***70,500***	***95,800***

[1] Year 2003 operations are based on calender year 2002 ATCT counts, with an adjustment for nighttime operations when the ATCT is closed.
[2] Flagstaff Pulliam Airport Master Plan Update, 2003.

OPERATIONS AND FLEET MIX

For this analysis, current aircraft operations data (takeoffs and landings) and forecasts of future activity (2008 and 2025) were used for noise modeling. Annual aircraft operations are converted into average daily operations

Molly A. Waller

From: Michelle.Simmons@faa.gov
Sent: Wednesday, August 10, 2005 9:33 AM
To: Molly A. Waller
Subject: Fw: More Comments re Flagstaff Airport EA

Attachments: COMMENTS RE FLAGSTAFF AIRPORT DRAFT ENVIRONMENTAL ASSESSMENT.rtf

COMMENTS RE
GSTAFF AIRPOR

Please add to the comment depot.

Thanks

Michelle Simmons, MS
Environmental Protection Specialist
AWP-623.4
(V) 310. 725-3614
(F) 310. 725-6849
----- Forwarded by Michelle Simmons/AWP/FAA on 08/10/2005 07:31 AM -----

dhingson@infowest .com		
		To
08/09/2005 04:19 PM	Michelle Simmons/AWP/FAA@FAA	
		cc
		Subject
Please respond to dhingson@infowest .com	More Comments re Flagstaff Airport EA	

Dear Michelle Simmons,

As I assume you are "the responsible FAA Official" as described in Order 5050.4a, for the preparation of the Flagstaff Airport Environmental Assessment, I am forwarding this supplemental comment on the EA to you.

If you are not the "responsible FAA Official", could you forward this to that person, and also provide me with contact info?

It addresses important concepts, such as the adequacy of the EA, request for time extension, and a particular workshop August 18 on the supplemental noise analysis, so I felt it was timely to forward this to you. I just sent same to Flagstaff City Council and the Mayor, expanding on my remarks there last evening, and following upon a suggestion made by the City Manager.

Dick Hingson
(See attached file: COMMENTS RE FLAGSTAFF AIRPORT DRAFT ENVIRONMENTAL

To: council@ci.flagstaff.az.us
Cc: dhingson@infowest.com; , Ken_McMullen@nps.gov, jk436mc@npgcable.com, rclark@grandcanyontrust.org, robelliot@aol.com
Subject: COMMENTS RE FLAGSTAFF AIRPORT DRAFT ENVIRONMENTAL ASSESSMENT

August 9, 2005

To: Flagstaff City Council and Mayor

From: Dick Hingson, noise/aviation chair, Sierra Club national committee on Recreation Issues

Cc: Michael Covalt, Airport Manager
Ken McMullen, Overflights Manager, Grand Canyon National Park
Jim McCarthy, Sierra Club
Roger Clark, Grand Canyon Trust
Michelle Simmons, FAA
Rob Elliot
file

RE: **EXTENDED COMMENTS RE FLAGSTAFF AIRPORT DRAFT ENVIRONMENTAL ASSESSMENT**

I appreciate Council's hearing of my three-minute remarks at very close of its August 8 Work/Study Meeting, concerning the Airport EA. I wish you well in your further analysis.

Time expired while I, as a Sierra Club member who had participated in the development of the Club's letter, was expressing support for the Sierra Club's August 4, 2005 Letter to Michael Covalt. As you recall, I centered my remarks on the inadequate and apparently erroneous Supplemental Noise Assessment, particularly Sec. 4.2.2.2 "Tier Two Analysis" and Sec. 4.2.2.3 "Summary", re cumulative noise impacts on Grand Canyon National Park.

When time expired, I was re-stating the *three specific requests* the Sierra Club had just made to the City, on Page Three of that letter. The two that I didn't reach were:

- That the City (or the FAA) temporarily withdraw the draft EA, until at least its most serious deficiencies were corrected (as outlined in the letter and in our presentations), *and* best available forecast data, i.e. from FAA (March, 2005), be properly provided within this EA itself.
- That the Comment Period on the EA be extended to September 16, since comment really ought not commence until a minimally professional, *adequate*, draft EA document had been readied.

- (The third request, as you heard again from me, was that the City require from the consultants that a special public seminar be conducted immediately *prior to* the August 18 Workshop/Public Hearing. This seminar, or workshop, would be focussed solely on the Grand Canyon Noise Analysis in Sec. 4.2.2.2 and Sec. 4.2.2.3 of the EA., in light of specific scoping concerns expressed in 2003 by the Sierra Club, the Grand Canyon Trust, and the National Park Service. This third request is all the more timely, because of the unwillingness of Coffman Associates to provide to date any detailed, explanatory Technical Report which no doubt underlies this Grand Canyon analysis. The briefer, EA analysis is so inadequately presented, with such striking omissions and errors, as to be unsupportable as to the validity of its findings.)

I now repeat the key concerns I offered orally about the Grand Canyon cumulative impacts analysis:

- It failed to specify the precise trajectory of the chosen, direct service, airline route (FLG-SLC)

being modelled over the Park. It also failed to clarify the rationale by which the route was determined.

- The contractor's construction of the "No Action" alternative here modeled was inadmissible, for reasons succinctly stated in the Sierra Club letter, and in Sec. 3.5 of the EA, entitled "Past, Present, and Reasonably Foreseeable Future Actions".
- Lack of specificity as to which flight altitudes were being purportedly modeled for this (supposedly) "all existing aircraft" study over the Park, compared to those flight altitudes, and aircraft types being excluded (for example, air tours, and their support operations.) Also failure to show the timeline of comparison between alternatives.
- The failure of the FAA's INM 6.1noise model on the "Time Above" (TA) metric for Grand Canyon National Park, and/or on its data presentation. (See detailed additional comments on this point, recited within the letter of August 3, 2005 Michael Covalt to me. This was a brief compendium of my earlier e-mails comments. The Covalt recitation was copied to the FAA and to William Menard.)
- The failure within the EA to cite any written Technical Report, readily available to the commenting public on a timely basis, which would enable reasonable interpretation of the above problems.
- The surprising lack of correspondence between these noise modeling results, and recent, "best available data" for GCNP noise, including the FICAN March 2005 study published and available at http://overflights.faa.gov. The EA shows only a very fractional, minor proportion of the aviation noise which has accumulated in aggregate, from many aircraft types and altitudes and origins, and which have arisen from "past and present actions." And which can be "reasonably forecasted." For Grand Canyon noise, Sec. 3.5 of the EA is specifically erroneous in its limitation, that "past projects (be) only defined as those which have been undertaken over the *past few years*." (emphasis supplied.)

CONCLUSION:
The unfortunately obfuscated and erroneous supplemental noise analysis raises justifiable concern about NEPA integrity, as applied to this analysis of GCNP cumulative noise impacts. An indefensible FONSI, resulting from an indefensible cumulative impact analysis, could carry serious consequences. Either the FAA's decision would lead to a full EIS, or the City could find itself in the unfortunate situation I mentioned last night. That is, the City of Flagstaff could experience the vexing situation that recently befell the City of St. George, Utah, where five extra years and $2.5 million is being expended on supplemental analysis and an EIS to redress a similarly careless situation, re its proposed airport EA and noise impacts re nearby Zion National Park. The DEIS is still not available, and still more months will be required to an FEIS and Record of Decision.

An attractive, immediate remedy is clearly proposed in the Sierra Club letter. I re-emphasized it to the Council last evening*: "Specifically, we would like to see Salt Lake City bound commercial service routed east of the Grand Canyon Special Flight Rules Area. A minor realignment of the authorized route for this traffic towards the east would evidently keep noise out of the park, and obviate the need for a detailed cumulative impact analysis on the Grand Canyon, or possibly an EIS."*

Molly A. Waller

From: dhingson@infowest.com
Sent: Wednesday, August 10, 2005 1:35 PM
To: mcovalt@ci.flagstaff.az.us
Cc: Molly A. Waller
Subject: Request for Technical Background Report, re Draft Flagstaff Airport EA

August 10, 2005

FROM: Dick Hingson

TO: Mike Covalt, Flagstaff Airport Manager
cc: Molly Waller, Coffman Associates

RE: (1) SECOND REQUEST FOR WRITTEN TECHNICAL STUDY supporting the "Tier Two" Analysis within the Supplemental Noise Analysis, for Grand Canyon National Park, within the Flagstaff Airport draft EA

RE: (2) SECOND REQUEST FOR PUBLIC WORKSHOP (seminar) specifically re the Supplemental Noise Study in the EA, as pertains to the Grand Canyon.

I am in receipt of Molly Waller's e-mail requesting only written questions on the draft EA.

About two weeks ago, when the EA had first appeared, I requested from Coffman Associates a copy of the detailed technical study report, which must have informed Sec. 4.2.2.2, and Sec. 4.2.2.3 of the draft Environmental Assessment.

No doubt such report would be very helpful to anyone trying to understand/verify the noise modelling assumptions, route selection methodology, including its specific centerline, and various conclusions reached, including yet unanswered questions. Phone conversations have been of some, but very limited, helpfulness. However, the written background report is indispensable for any interested commentor.

Key Point: Only 16 days remain in the public comment period, and we still have not received a response as to how any public commentor may obtain and read the background study.

Please let me know in reply how, and when, I may access this supporting background research document. In the absence of seeing it, as you know, I, and the Sierra Club's Grand Canyon Chapter, have begun to raise unanswered questions within public comments.

We will continue to do that, because time is rapidly expiring on the comment period.

We also wish to know when you can schedule our requested seminar, for interested members of the entire public, prior to the 6 pm work shop, re the research study underlying the Grand Canyon noise analysis.

The Sierra Club's Aug. 4 letter from Jim McCarthy said, "We also request that there be a special seminar, for all interested members of the public, concerning the Supplemental Noise Analysis. This could be most conventiently scheduled about 4:30 p.m., immediately preceding the 6:00p.m. start to the 18 August Public Hearing and workshop on the EA. That would allow for some collective public education on this particular aspect of the EA. The seminar, as with any proper supplemental noise analysis, would address numerous specific Park concerns contained within the Grand Canyon Trust scoping letter of 15 August 2003."

I would think such seminar could also address potential mechanisms for route mitigation, re Grand Canyon, a key point made in the Grand Canyon Trust scoping letter, as well as in the Sierra Club's most

Thank you for any assistance either of you can provide,in reply.

Molly A. Waller

From: Michelle.Simmons@faa.gov
Sent: Wednesday, August 10, 2005 3:43 PM
To: dhingson@infowest.com
Cc: Dave.Kessler@faa.gov
Subject: Re: More Comments re Flagstaff Airport EA

Mr Hingson,

This e-mail is in response to the questions that you presented to me over the phone this morning.

With regard to the responsible FAA Official as described in FAA Order 5050.
4a, for the preparation of the Flagstaff EA, that person is Dave Kessler. My role is that of Project Manager.

The appropriate FAA Official to consult with pertaining to air route design in and around the Grand Canyon would be the Division Manger for Air Traffic, Western Pacific Region. I am providing you with his contact information.

John Clancy
Air Traffic Division Manager
(310) 725-6500

I am in receipt of your supplemental comments pertaining to the EA..

Thank you for your interest in the Flagstaff EA. All of the comments received are being addressed, and will be responded to in writing.

Sincerely,

Michelle Simmons, MS
Environmental Protection Specialist
AWP-623.4
(V) 310. 725-3614
(F) 310. 725-6849

Rory Madden
1310 North McMillan Road
Flagstaff, Arizona 86001

August 10, 2005

Mr. Mike Covalt, Airport Manager
6200 S. Pulliam Dr.
Flagstaff, AZ 86001

Dear Mr. Covalt,

I am writing this letter in strong support of the Environmental Assessment and Master Plan that has been developed for Pulliam Field. As a recent past chairman of the Flagstaff Airport Commission, I realize quite well the amount of excellent work you, your staff, and the current commission provided into each of these projects. In addition, I would commend the work of Kaufman and Associates who I believe were consultants to the airport.

The airport in Flagstaff is more than concrete and airplanes to me. It represents our city's gateway to so many of the business and leisure travelers who visit us. It represents a safe haven for our own Flagstaff citizens looking to travel themselves on business or pleasure. We must do all we can to preserve and strengthen this community resource. I believe that the new Master Plan will insure the continued excellence at our airport.

Thank you for allowing me to voice my ongoing support for our developing airport and facilities. Do not hesitate to contact me if you would like me to expound on these thoughts.

Sincerely,

Rory Madden

Rory Madden

Molly A. Waller

From: Rob Wilson [Rob@aspenpromedia.com]
Sent: Thursday, August 11, 2005 5:04 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

I believe that the currently planned runway expansion at Flagstaff Airport is critical to the sustainability of Flagstaff's business economy. Clearly, we need additional high paying jobs in Flag. In order to attract new businesses, we need to continue the building of office space at the airport and improve the other airport facilities to support the added business.

All of the residents of Flagstaff will benefit from an expanded runway because it will mean larger more capable (and comfortable) aircraft will be accommodated. Wouldn't it be great if we could fly somewhere other than Phoenix from Flag?

I strongly urge the City Council to approve and expedite the expansion of the runways at Pullium.

Sincerely,

Rob Wilson
6217 E Abineau Canyon Dr
Flagstaff , AZ 86004

Molly A. Waller

From: Mark Venuti [MarkVenuti@aol.com]
Sent: Thursday, August 11, 2005 5:07 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Mark Venuti
3514 NW Rainier Loop
Flagstaff , AZ 86004

Molly A. Waller

From: Javier Solis [jsolis@thehotelgroup.com]
Sent: Thursday, August 11, 2005 5:14 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

As a new resident to Flagstaff and Manager of a major hotel, it is very clear to me that the city must move forward with the improvements and runway extension at the airport. Flagstaff is at a cross roads of growth. It will grow and we can either be prepared for growth or end up playing expensive catch up in the future.

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Javier Solis, CHA
General Manager
Radisson Woodlands Hotel - Flagstaff
1175 W Route 66
Flagstaff , AZ 86001

Molly A. Waller

From: Stephanie McKinney [StephMc@gfec.org]
Sent: Thursday, August 11, 2005 5:21 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Stephanie McKinney
1301 S Shullenbarger Dr
Flagstaff , AZ 86001

Molly A. Waller

From: Ann Heitland [ann@bestflagstaffhomes.com]
Sent: Thursday, August 11, 2005 5:34 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Ann Heitland
RE/MAX - Peak Properties - Ann Heitland
2 S Beaver St Ste 230
Flagstaff , AZ 86001

Molly A. Waller

From: James Praet [flagtotalhealth@yahoo.com]
Sent: Thursday, August 11, 2005 5:41 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

James Praet
3440 S Walkup Dr
Flagstaff , AZ 86001

Molly A. Waller

From: Greg Jerome [gjerome@swirecc.com]
Sent: Thursday, August 11, 2005 5:52 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

Thank you for taking a moment to read my thoughts about the airport extension.

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community. It would be most convenient if Flagstaff citizens, and those wishing to visit had alternatives to flying through Phoenix.

I urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Greg Jerome
1605 N Wood Hollow Way
Flagstaff , AZ 86004

Molly A. Waller

From: Meredith Disney [disney@arizonanorth.com]
Sent: Thursday, August 11, 2005 5:55 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

Having lived in Flagstaff for 21 years I have witnessed many positive changes, among them the design & construction of the Flagstaff Pulliam Airport replacement terminal. Unfortunately it was ahead of its time because we built it and nobody came. The reason was because our airport facilities were inadequate to provide a safe environment for larger planes and increased service.

As a concerned citizen and member of the Flagstaff Chamber of Commerce I urge you to support the Airport Master Plan and the runway extension Environmental Assessment (EA). It is time to support economic growth, get the traffic and use the terminal was designed to handle, and to bring us into the 21st Century.

Sincerely,

Meredith Disney
1605 E Everest Dr
Flagstaff, AZ 86004

Molly A. Waller

From: Dietrich Mayring [dmayring@flagstaff.littleamerica.com]
Sent: Thursday, August 11, 2005 5:56 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Dietrich Mayring
4343 E Soliere Ave Apt 2058
Flagstaff , AZ 86004

Molly A. Waller

From: Joy Staveley [joy@canyoneers.com]
Sent: Thursday, August 11, 2005 5:58 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

We urge you to support the Pulliam Airport Runway Extension because it is vital to economic growth in Flagstaff, increases the safety of take-offs and landings at Pulliam, provides higher quality air service with more choices and therefore more reliable air service to our City and region. When we had both Delta/Skywest and America West the overall service was much more dependable. In any event, our city will grow and we need to be able to accommodate increased air traffic that can accommodate larger aircraft.

Realizing that the FAA will be paying for 95% of the project cost, we would be foolish not to take advantage of such a wonderful opportunity.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community. We agree with the Chamber's position both as business owners and as long time residents of Flagstaff.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Joy Iris Staveley and Gaylord L. Staveley
1117 E Marina Ln
Flagstaff , AZ 86004

Molly A. Waller

From: John McCartney [flagcabn@localnet.com]
Sent: Thursday, August 11, 2005 6:08 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

My neighbors, family and I are totally against expansion at Pulliam Airport because of the noise pollution that it introduces into our homes and neighborhoods. What was once a relaxing is becoming nerve raking.

What will become of our investment at the airport when the lack of fossil fuels reduces the air traffic. We are putting in bike trails and researching alternate fuels which will not neccesarily lead to the status quo in air travel.

Please help us!

Sincerely,

Sincerely,

John McCartney
187 Elk Ovi
Flagstaff , AZ 86001

Molly A. Waller

From: Larry Garnello [crystalmagic@esedona.net]
Sent: Thursday, August 11, 2005 6:18 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Larry Garnello
pres
Crystal Magic
1 N San Francisco St
Flagstaff , AZ 86001

Molly A. Waller

From: sr nolen [srn@canyoneers.com]
Sent: Thursday, August 11, 2005 6:24 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

sr nolen
2180 W Pennsylvania Ct
Flagstaff, AZ 86001

Molly A. Waller

From: Stan Pierce [spierce@kanztv2.com]
Sent: Thursday, August 11, 2005 6:47 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community. I have flown from Flagstaff to Phoenix numerous times, both on business and on family trips. The lack of air carrier choices flying out of Flagstaff has left me waiting for the AW 'puddle jumper' in Phoenix too many times.

Last March my family and I visited Washington DC. Instead of driving to Phoenix and parking the car at the airport we flew out of Flagstaff to meet our connecting flight to DC. On our return trip we waited 6 hours for our flight back to Flagstaff from Phoenix! Note that I did not say we had to schedule our flight to Flagstaff 6 hours later, our flight was delayed for 6 hours. Imagine 6 hours at Sky Harbor airport with your spouse and 3 kids. And this was after a 4 1/2 hour flight from DC to Phoenix.

Many associates of mine have similar stories to tell. Flight cancellations from Phoenix to Flagstaff have left many Flagstaff families stranded in Phoenix, only to rent a car and still have to make the drive back up the mountain. I don't enjoy driving to Phoenix to catch a flight, the $200 or so is worth it to me to fly out of our LOCAL airport. Allow me to have a choice when supporting our local airport.

I urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Respectfully,

Stan Pierce
2381 N White Pine Dr
Flagstaff , AZ 86004

Molly A. Waller

From: James Dorman [jim@ccof.net]
Sent: Thursday, August 11, 2005 6:59 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

I believe this venture is vital to the continued economic growth of our community and will a greater level of average income for our Flagstaff citizens.

In addition, the runway extension will provide the opportunity for more choices in air service and will allow our airport to provide a higher level of quality air service.

I urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

James Dorman
Senior Pastor
Christ's Church of Flagstaff
3475 E Soliere Ave
Flagstaff, AZ 86004

Molly A. Waller

From: christine pierce [christine@marymonday.com]
Sent: Thursday, August 11, 2005 7:31 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Christine Pierce
2381 N White Pine Dr
Flagstaff , AZ 86004

Molly A. Waller

From: Ricky Patel [rickyp@dknhotels.com]
Sent: Thursday, August 11, 2005 8:11 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Ricky Patel
3770 E Foxtail Dr
Flagstaff , AZ 86004

Molly A. Waller

From: Randy Spate [randyspate@fancyazgraphics.com]
Sent: Thursday, August 11, 2005 11:47 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assessment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assessment to expand Pulliam Airport's Runway.

Sincerely,

Randy Spate
1222 S Wild Burro Dr
Cottonwood , AZ 86326

Molly A. Waller

From: Ronald Kopf [rkopf@azdes.gov]
Sent: Friday, August 12, 2005 10:07 AM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Ronald Kopf
Local Veteran's Employment Representative Department of Economic Security / Employment Administration
397 S Malpais Ln Ste 9
Flagstaff , AZ 86001

Molly A. Waller

From: David Evans [david@continentalflagstaff.com]
Sent: Friday, August 12, 2005 10:14 AM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

As a full-time citizen of Flagstaff and a member of the Board of Directors for the Flagstaff Chamber of Commerce, I believe that the extension of the airport runway is important to our community. The extension of the runway will strengthen economic commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

I urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

David Evans
1550 N Fox Hill Rd
Flagstaff , AZ 86004

Molly A. Waller

From: Byron Atkinson [byron@kirkpatricklaw.com]
Sent: Friday, August 12, 2005 10:38 AM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

I am committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Byron Atkinson
Law Firm Administrator
Kirkpatrick & Harris, P.C.
PO Box 100
Flagstaff , AZ 86002

Molly A. Waller

From: Barry Levitan [flaglips@aol.com]
Sent: Friday, August 12, 2005 10:45 AM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

I support the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

Flagstaff needs the capacity to handle small regional jets and become a real part of the air transportation system.

I urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Barry Levitan
owner
Levitan Investment Properties & Services (LIPS)
19 S San Francisco St
Flagstaff, AZ 86001

Molly A. Waller

From: Gary Smith [gasmith@uesaz.com]
Sent: Friday, August 12, 2005 11:30 AM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assessment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assessment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Gary A Smith
1880 W University Ave
Flagstaff , AZ 86001

Molly A. Waller

From: Sylvie Johnson [sjohnson@cbnarico.com]
Sent: Friday, August 12, 2005 12:35 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Sylvie Johnson
Coldwell Banker NARICO - Sylvie Johnson
1515 E Cedar Ave Ste D-1
Flagstaff , AZ 86004

Molly A. Waller

From: Justin Baecker [jbaecker@cbnarico.com]
Sent: Friday, August 12, 2005 1:19 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

I do not support any expansion of Pulliam Airport. As a resident of Kachina Village I already see more air traffic directly over my home. By no stretch am I going to support or encourge more flights at earlier and later hours. As far as the bussiness community goes we have existed up to this point with bussiness travelrs having to make do with the 8 or so flights in and out of Flagstaff each day. Nor does the 2 hour drive up from the Valley discourage those that need to come to Flagstaff to conduct their bussiness.
If this is how they make money they come even if it means a drive. As far as tourism do you really believe that people will opt not to travel to the Grand Canyon because they can not book a flight into Flagstaff at which point they would then need to figure out how to drive from Flagstaff to the canyon. As one of the most visited National Parks in the country they seem to be coming even without expanded flight services at Pulliam Airport. Again I do not support the expansion of Pulliam Airport it is my belief that the benefit of the expansion insinifigant at a large cost to those of us that live within proximity of the airport.

Sincerely,

Justin Baecker
100 Mongwa Ovi
Flagstaff , AZ 86001

Molly A. Waller

From: V.C. Naik [bellsnaik@hotmail.com]
Sent: Friday, August 12, 2005 3:27 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

V.C. Naik
2755 S Woodlands Village Blvd
Flagstaff , AZ 86001

Molly A. Waller

From: Michael Higdon [amerbc@infomagic.net]
Sent: Friday, August 12, 2005 3:32 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

Dear Joe Galli, Government Affairs Director:
I agree with the extension of the runway at Pulliam because I believe it is essential to continued economic growth, increases safety as well as provide higher quality air service and choice in air service.

Sincerely,
Michael Higdon,
American Bullion & Coin Co.

Sincerely,

Michael Higdon
Michael R. Higdon DBA
American Bullion & Coin Co.
2710 N Steves Blvd Ste 16
Flagstaff , AZ 86004

Molly A. Waller

From: Kevin Little [kshots@yahoo.com]
Sent: Friday, August 12, 2005 5:22 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Kevin Little
501 E Cherry Ave
Flagstaff , AZ 86001

Molly A. Waller

From: Mark Ross [mross@swhospitality.com]
Sent: Friday, August 12, 2005 6:32 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Hospitality and Innkeeper's Association has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assessment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Hospitality Association has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Mark Ross
1201 E Ponderosa Pkwy Apt 257
Flagstaff , AZ 86001

Molly A. Waller

From: James and Marlane Spencer [jspencer@uneedspeed.net]
Sent: Friday, August 12, 2005 6:50 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

From what we have heard, the Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. The runway extension may indeed help attract additional carriers which can provide improved service, choices in air travel, more destinations served from Flagstaff, and more visitors to our community.

Our support for the the Airport Master Plan and the runway extension Environmental Assesment (EA) depends on the input you receive from those likely to be directly impacted by the extension, most notably those who own homes and businesses in the flight path and landing pattern created by the extension and the impact of potentially larger aircraft using both. In our rush to help Flagstaff in an overall sense, let us not forget those individuals who already live and work here and have grown fond of the lifestyle they already have.

Thank you for considering this area of concern and once it is addressed for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Mr. & Mrs. James and Marlane Spencer
1000 E Appalachian Rd
Flagstaff , AZ 86004

Molly A. Waller

From: Bill McGrath [wmcgrath@jcpenney.com]
Sent: Saturday, August 13, 2005 8:50 AM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

We need you to take a stand and show your support! Business growth needs you to commit to our economic future! Don't hide behind a tree! Do you want Flagstaff to risk becoming a "2nd tier" city in northern Arizona? Lack of competition in air travel has stifled both business and pleasure traffic to this area. PLEASE support the Pulliam airport expansion! The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assessment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assessment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Bill McGrath
Store Manager
JCPenney Co., Inc. - Flagstaff Mall
4600 N US Highway 89
Flagstaff , AZ 86004

McCOY MOTORS

SWITZER CANYON AUTO PLAZA

August 13, 2005

Mr. Michael Covalt, Manager
Flagstaff Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

Re: Proposed runway extension

Dear Mr. Covalt:

I am writing in support of the proposed runway extension. As a community, we need the runway extension to help ensure that we will have air service in the future as well as its accompanying benefits. I understand that there are factions in opposition because some potential air routes over the Grand Canyon would have an adverse impact to the "quiet" in the canyon. To this I say that commercial air traffic could be routed East by way of the Tuba City VOR in order to mitigate this potential condition. It is also apparent that the opposition will use any available means to stop the extension including raising issues over minor errors and inconsistencies in the draft EA. To this I say let them be so noted and allow the extension to go forward. The economic health and vitality of our community is at stake.

In closing, I am a lifelong resident of Flagstaff since 1946 and whose family has been here since 1906. I am also a local businessman, active in civic and business affairs, as well as being an airport user and a pilot since 1963.

Sincerely,

LaVelle McCoy

PONTIAC • BUICK • GMC

361 N. Switzer Canyon Dr., P.O. Box 1927, Flagstaff, AZ 86002 • (928) 774-1472 • www.mccoymotors.com

Molly A. Waller

From: Lisa Jerome [lisajerome@npgcable.com]
Sent: Monday, August 15, 2005 10:02 AM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Lisa Jerome
Owner/Operator
Tony's Architectural Salvage
1116 E Route 66
Flagstaff , AZ 86001

Molly A. Waller

From: Michael Neubauer [neubisgod@mac.com]
Sent: Monday, August 15, 2005 10:07 AM
To: Kpetersen@ci.flagstaff.az.us
Cc: Matt Brydenthal
Subject: Re: Airport routing

Hi

I live at 130 Kona Trail in Kachina Village and am concerned that the quiet forest atmosphere that I enjoy almost daily here may be altered by the efforts of the Flagstaff community to increase their access to a transportation system that relies on large and wasteful expenditures of fossil fuels. While I am aware that most communities of this size and rural location desires this access I hope the city council realizes that airline transportation may be on its way out; consider the recent trends after 9/11 and increasing fuel costs on the financial status of the major airlines. I hope the council will not sacrifice the tranquility of this community for the short term lure of quick transportation and instead realizes the potential of the more efficient rail system that has served the city well since its founding.

Please answer a single question for me: over which community will you route flights: Forest Highlands or Kachina Village? Is there an alternative that avoids both?

Thanks

Michael and Georganne Neubauer
130 Kona Trail

Molly A. Waller

From: Ian Skidmore [ikskidmore@msn.com]
Sent: Monday, August 15, 2005 11:20 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Ian Skidmore
2717 N Sandstone Way
Flagstaff , AZ 86004

Molly A. Waller

From: Michael Cunningham [michaelc@webefloors.com]
Sent: Monday, August 15, 2005 11:26 AM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

Flagstaff does not need to expand the runway at the Pulliam Airport. We do not need more and larger planes here, along with the noise and congestion that they bring. Nor do we need to spend these taxpayer dollars on unneeded airport capacity.

Please do not support the Environmental Assessment project to expand Pulliam Airport's Runway.

Sincerely,

Michael J. Cunningham

Sincerely,

Michael Cunningham
848 W Coy Dr
Flagstaff , AZ 86001

Molly A. Waller

From: Joyce Beaman [dltayman@aol.com]
Sent: Monday, August 15, 2005 12:33 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Joyce Beaman
Executive Assistant
Southwest Hospitality Management
2101 N 4th St Ste 202
Flagstaff , AZ 86004

Molly A. Waller

From: Jean Richmond-Bowman [jean@nazba.org]
Sent: Monday, August 15, 2005 12:47 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The extension of the airport runway is critical to the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

On behalf of NABA, I urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Jean Richmond-Bowman
Executive Vice President
Northern Arizona Building Association
1500 E Cedar Ave Ste 86
Flagstaff , AZ 86004

Molly A. Waller

From: Yong Yu [yong.yu@fsbflag.org]
Sent: Monday, August 15, 2005 6:21 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

We urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Yong Yu
Assistant Vice President
First State Bank
822 N Humphreys St
Flagstaff , AZ 86001

Molly A. Waller

From: Ron Freitag [info@tele-digit.com]
Sent: Monday, August 15, 2005 7:00 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community. It is also vital for Flagstaff and the surrounding areas economic growth.

We urge you to support the Airport Master Plan and the runway extension Environmental Assessment (EA).

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time. The Chamber has long been supportive of this expansion on behalf of the business community.

Thank you for your support of the Environmental Assessment to expand Pulliam Airport's Runway.

Sincerely,

Ron Freitag
2354 W Blue Willow Rd
Flagstaff , AZ 86001

4050 E. Huntington Drive, Flagstaff, AZ 86004 1(800)786-7238 Fax: (928)526-8246 www.azraft.com

AZRA
ARIZONA RAFT ADVENTURES

August 15, 2005

Michael Covalt, Airport Manager
Flagstaff Pulliam Airport
Flagstaff, AZ 86001

Ref.: Comments on the Environmental Assessment for Expansion of the Flagstaff Airport

Dear Mr. Covalt:

I submit these comments on behalf of myself and my company, Arizona Raft Adventures (AzRA), or more specifically, on behalf of the 1,400 customers AzRA serves on river trips on the Colorado River through Grand Canyon National Park (the Park) each year. We route our customers through Flagstaff, Arizona before and after their river trips. I represent no other groups in these comments.

I support expansion of the Flagstaff Pulliam Airport (the Airport), or more specifically, the lengthening of the runway by 1,800 feet. I believe that such expansion is warranted and necessary in spite of inadequacies in the Environmental Assessment (the EA). I am concerned about cumulative noise impact on visitors to Grand Canyon National Park and other National Park units and federally designated wilderness areas proximal to Flagstaff Pulliam Airport and I find the EA lacking in its assessment of potential noise impacts to Grand Canyon National Park and these other federal land units. I urge mitigation of potential cumulative noise impacts over Grand Canyon National Park (the Park) specifically through routing any future high altitude regional jet route to Salt Lake City east of the Park.

EXPANSION OF THE AIRPORT IS WARRANTED AND NECESSARY

Specifically for my customers, and more generally for tourism and business users of the Airport, expansion is warranted and necessary in order to compete effectively with other gateway cities to the greater Grand Canyon region, to serve greater Flagstaff and northern Arizona, and to avoid potential reduction in commercial enplanements.

It seems clear that regional air service operators are phasing out smaller, turboprop airplanes and they may possibly continue service to Flagstaff in the years ahead only if the Airport runway is lengthened to accommodate more cost effective regional jets. Regional jets, and potentially to more cities than Phoenix, will better serve my customers than commercial aircraft currently in use. Further, regional jets are more environmentally sound both in terms of being more fuel efficient, especially per passenger (larger and newer engine technology) and they provide less noise (fewer flights for the number of passengers served and newer technology).

printed on recycled paper

As a businessman, I also support lengthening the Airport runway better to serve business jets, which at present are unable to carry adequate fuel on summer take-offs to reach eastern destinations. Preventing these planes from having to touch down for refueling mid-continent will also save fuel and reduce harmful emissions.

THE EA SUPPORTS EXPANSION BASED ON ERRONEOUS FIGURES

It is redundant and unnecessary to repeat in this letter the assertions made by Jim McCarthy of the Sierra Club in his letter to you of August 4, 2005 and by Mr. Dick Hingson in his letter to the Flagstaff City Council of August 7, 2005. Of the several errors cited in said letters, the most troubling to me is the failure of Coffman and Associates to use the current best available data regarding projections on national enplanements. That the Federal Aviation Administration (FAA) has already accepted these projections and they can't be altered is a cop-out that falls short and fails to relinquish Coffman's responsibility to use the current best available data. The fact of the matter is that more current national enplanement projections demonstrate a reduction in the rate of growth in enplanements that has occurred in the intervening three years since the projections cited in the EA. Using more current data could result in Flagstaff enplanment projections falling from an accelerated growth curve to a constant growth curve, but perhaps not.

I believe that expansion of the Airport is warranted and necessary even were projected enplanements less optimistic than presented in the EA. Most simply, the Airport needs regional jet capacity in order to serve northern Arizona's growing aviation needs for tourist and business passengers in the decades ahead.

My point in challenging the figures in the EA, then, is based on the critical importance of advancing the integrity of the administrative process. The public is entitled to a professional environmental document. To comply with the National Environmental Policy Act (NEPA), the EA must be accurate and complete. Presumably Coffman and Associates may serve other municipalities and the FAA under future NEPA compliance contracts and so it is critically important that their work be of a high standard.

THE NATURAL SOUNDSCAPE IS VALUED BY MY CUSTOMERS

I know, the irony is not lost on me that my customers fly in airplanes to come to a place where they can enjoy the natural soundscape unimpaired by the noise of airplanes. But there you have it. Of all the values of a river trip through the Grand Canyon that my customers comment on most eloquently, it is the value of the natural soundscape. On every trip we provide opportunities for quiet floats, short explorations up intimate side canyons with no talking, and we encourage our customers to find quiet, solitary time off by themselves. They value these opportunities immensely and frequently comment that experiencing the natural soundscape is a highlight of their trip. Unimpaired audibility is a genuine need and a spiritual value for them in the Grand Canyon.

My concern is over the potential cumulative impact of high altitude regional jet noise over the eastern end (and potentially elsewhere) in the Grand Canyon. I find it difficult (and ultimately I was unsuccessful) to glean from the EA what exactly is the cumulative noise impact over the Grand Canyon and where exactly that noise contribution comes from. The EA presents

no maps depicting future high altitude, regional jet routes over the Grand Canyon originating from or arriving to Flagstaff and no such flights exist today to my knowledge. (Existence of a FLG – SLC regional jet route appears to be assumed in the current condition contrary to actual fact.)

The U.S. Court of Appeals (D.C. Circuit), made it clear in its August 2002 opinion (*USATA v FAA*) that all types of aviation noise—commercial, military, air tours, general aviation—must be considered when defining noise levels over Grand Canyon National Park. To protect both the natural soundscape at the Park and reserve what little net opportunity for aircraft noise there may be for scenic air tours, it is incumbent upon all of us that we not allow any new high altitude jet routes to traverse the Grand Canyon.

THE FAA SHOULD STIPULATE THAT FUTURE FLAGSTAFF TO SALT LAKE CITY FLIGHTS SHOULD PASS TO THE EAST OF GRAND CANYON NATIONAL PARK

At face value, routing regional jets between Flagstaff and Salt Lake City east of Grand Canyon National Park should be fairly easy to accomplish. I imagine (though the EA sure didn't help me in this surmise) that regional jets taking off from Flagstaff headed for Salt Lake City would head into the prevailing wind to the southwest, bank to the right and meet up with the VORTAC NAV route running from Prescott to Pangwitch, right over Grand Canyon National Park. They could as easily take off and head for Tuba City and meet up with a VORTAC NAV route north from there.

Routing flights into and out of Flagstaff, how those decisions are made and how they end up, should be part of the public process. Along with others, I urge you to call a Regional Jet Routing Workshop to educate the public and gain their input on future route bearings that may cause cumulative noise impact to the Grand Canyon and other sensitive federal land use areas proximal to Flagstaff consistent with Section 4 (f) of the Department of Transportation Act.

SUMMARY

Thank you for accepting my comments on the Environmental Assessment on the Expansion of Flagstaff Pulliam Airport. I support expansion of the airport as proposed, better to serve my customers, other tourists, and business people transiting through Flagstaff. Mitigating the cumulative impact of aircraft noise at Grand Canyon National Park and other sensitive federal land use areas proximal to Flagstaff is important to me and my customers. Please urge the FAA to route any future high altitude regional jet routes between Flagstaff and Salt Lake City to the east of Grand Canyon National Park and hold a public workshop on future regional jet routings departing from or arriving at Flagstaff Pulliam Airport.

Sincerely,

Rob Elliott

Rob Elliott

GREATER FLAGSTAFF ECONOMIC COUNCIL, INC.
1300 South Milton Road, Suite 125 • Flagstaff, Arizona 86001
Tel: (928)779-7658 • (800)595-7658 • Fax: (928)556-0940
e-mail: info@gfec.org • www.gfec.org

August 15, 2005

Mr. Michael Covalt, Airport Manager
Flagstaff Pulliam Airport
6200 S Pulliam Drive, Suite 204
Flagstaff, AZ 86001

Dear Mr. Covalt:

The Board of Directors of the Greater Flagstaff Economic Council urge you to support and take quick action to accept and approve the Environmental Assessment (EA) report for the extension of the runway and other improvements at the Flagstaff Pulliam Airport.

The Greater Flagstaff Economic Council (GFEC) is a public-private 501C3 non profit corporation comprised of one hundred plus members. As the lead economic development agency in Northern Arizona, our mission is to create and sustain good paying basic sector jobs for our community. The runway extension is crucial to maintaining commercial air service, expanding the air service to additional destinations, as well as for public safety.

GFEC has been a taskforce participant in the process of examining upgrades to the Airport Master Plan and noise studies by working with the consultant firm and the City of Flagstaff. Over the course of two years there have been many meetings of the taskforce to ask questions and monitor progress of the work program. In addition there were public noticed meetings for the purpose of taking comments from the general public. It is our view that this process has produced the desired result of a well thought out planning document for the future at Flagstaff Pulliam Airport. GFEC has complete confidence in material information contained within the draft Envirorumental Assessment document which should result in the issuance of a Finding of No Significant Impact.

During this process it has come to our attention that future northbound navigation routes may develop that could impact further over flight at the Grand Canyon. Should future demand at the Flagstaff Pulliam Airport warrant additional northbound flights, it would become necessary to establish and utilize a navigation route east of the Grand Canyon to preserve the national park as a "quiet zone" for environmental and quality tourism purposes.

Thank-you for the opportunity to provide comment on the Environmental Assessment report. We urge the City of Flagstaff and the FAA to take quick action to accept the EA, to approve the Airport Master Plan, and to engage in the construction phase of the runway extension.

Sincerely,

Stephanie McKinney
President and CEO

August 18, 2005

Mr Michael Covalt, Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

Dear Mr. Covalt:

As residents of Flagstaff since 1967, we are writing you this letter to express our support of the proposed extension of the runway at Flagstaff Pulliam Airport.

It is crucial for the economic development of Northern Arizona to have reliable and frequent air service. The extension of the runway should enable additional carriers to serve our city as well as providing direct connections to other hubs in the southwest.

Safety is another concern that we have. We believe that an extension of the runway will increase the safety of all travelers, particularly in challenging weather conditions.

We recommend that the Environmental Assessment (EA) be accepted as quickly as possible.

Thank you for your attention to our views on this matter.

Sincerely,

Marjorie McClanahan Sam McClanahan

Marjorie and Sam McClanahan

Nestlé Purina PetCare

North America

4700 E. Nestle Purina Avenue
Flagstaff, AZ 86004
928-526-3645

August 18, 2005

Mr. Michael Covalt, Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

Dear Mr. Colvalt:

Nestle Purina Petcare Company, is in full support and accepts the Environmental Assessment (EA) Report for the extension of the runway and other improvements at the Flagstaff Pulliam Airport. Nestle Purina Petcare Company uses this airport extensively for our transportation needs and feels it is imperative that these improvements continue.

It is essential that we continue to improve the service at Flagstaff Pulliam Airport for our team members going out of town on business and for visitors coming to our facility in Flagstaff. In addition, our Corporate jet has to stop in Albuquerque for fuel when leaving Flagstaff in the summer due to the length of the runway.

Thank you for the opportunity to provide our input in regards to the upgrades and improvements to the Flagstaff Pulliam Airport.

Sincerely,

NESTLE PURINA PETCARE COMPANY

Bill Calloway

Bill Calloway,
Plant Manager

David W. Fitz

From: Forum [dfitz@coffmanassociates.com]
Sent: Friday, August 19, 2005 4:16 AM
To: David W. Fitz
Subject: Moderate for Flagstaff Pulliam Airport at Message: 3.

Subject: noise pollution and already existing infrastructure
Author: Michael Amundson
Message: http://www.coffmanassociates.com/forum/read.php?f=127&i=3&t=3&admview=1

So, we have a city industry that already is a major source of pollution and now it wants to increase both its level of pollution and the size of the space that it pollutes. Why? To possibly entice a connection to another airport; to bring in travelers from the Verde valley; and to make easier access available to second home owners who can afford to fly in and out of Flagstaff. Geez, let's call a spade a spade and recognize that this is pollution and detrimental to the people ALREADY here living within earshot of this industry. If it cannot play by the rules already established, it has no business expanding at taxpayer's expense. If this were a smelter wanting to spread a greater quantity of pollution into a larger area of existing neighborhoods, we'd NEVER stand for it. How is this industry ANY different? Pollution is pollution. It is just as dangerous and could set the city up for major health damage lawsuites.

And another thing. The airport already utilizies lands well north of the runways for signal lights stretching almost to Lake Mary Road. If the runway expands 1800 feet in that direction, won't these light also have to move 1800 feet further our? This means that the airport will actually be expanding its industrial landscape 3600 feet beyond its current runway location. This will have to place these landing light across Lake Mary Road meaning that more land will be set aside for this expansion.

Let's take care of quality of life for EXISTING homeowners in the area like myself and say no to expanded industrial pollution.

To approve this message use this URL:
http://www.coffmanassociates.com/forum/admin/index.php?page=easyadmin&action=moderate&approved=N&id=3&num=127&mythread=3

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http://www.coffmanassociates.com/forum/admin/index.php?page=easyadmin&action=del&type=quick&id=3&num=127&thread=3

To edit this message use this URL: http://www.coffmanassociates.com/forum/admin/index.php?page=edit&srcpage=easyadmin&id=3&num=127&mythread=3

Molly A. Waller

From: Anna Del Paxton [adpaxton@infomagic.net]
Sent: Friday, August 19, 2005 7:46 PM
To: Mr. Michael Covalt
Subject: Support Pulliam Airport Runway Extension

Dear Mr. Covalt:

I urge you to support the Airport Master Plan and the runway extension Environmental Assesment (EA). I feel the runway extension will lead to higher quality air service and help reduce or eliminate cancelled or delayed flights due to aircraft weight limits and the length of runway required to safely take off.

The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years time.

Thank you for your support of the Environmental Assesment to expand Pulliam Airport's Runway.

Sincerely,

Sincerely,

Anna Del Paxton
426 N Pawnee St
Flagstaff , AZ 86001

CHEVALIER, ALLEN & LICHMAN LLP
Attorneys at Law
Commercial Litigation • Aviation Law & Litigation • Environmental Law & Litigation

Gary M. Allen, Ph.D.
John Chevalier, Jr.*
Berne C. Hart
Barbara E. Lichman, Ph.D.
Jacqueline E. Serrao, LL.M.°
Frederick C. Woodruff+

*Retired
+Admitted in New York
°Of Counsel

695 Town Center Drive, Suite 700
Costa Mesa, California 92626
Telephone (714) 384-6520
Facsimile (714) 384-6521
E-mail cal@calalrlaw.com

August 24, 2005

Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 South Pulliam Drive, Suite 204
Flagstaff, Arizona 86001

Re: Comments - Environmental Assessment for Runway Extension - Flagstaff Pulliam Airport, Flagstaff Arizona

Dear Mr. Covalt:

We represent Lone Tree Investments , LLC, an Arizona Limited Liability Company ("Lone Tree"), owner of a 650 acre property located northeast of Flagstaff Pulliam Airport ("Airport"), within the City of Flagstaff ("Flagstaff") and, since 2000, zoned for residential development. This letter constitutes Lone Tree's comments on the Environmental Assessment ("EA") for the proposed 1,801-feet extension of Airport Runway 3-21 ("Project").

In summary, the Project's noise and water quality impacts will not only "affect Public Health and Safety", but also "threaten a violation of federal, state or local law or requirements imposed for the protection of the environment." They are, therefore, "significant" as that term is defined in FAA Advisory Circular 1050.1E, Sections 501.b.(2) and (10), and 40 C.F.R. Sec. 1508.27 ("CEQ Guidelines"). As a consequence, the Project constitutes a "major federal action significantly affecting the quality of the human environment", *Id.*, for which an Environmental Impact Statement ("EIS"), rather than an EA, is required.

I.

THE EA SUBSTANTIALLY UNDERSTATES THE PROJECT'S NOISE IMPACTS

Because it is based on flawed assumptions concerning the runway extension, its relationship to demand for air travel, and the current runway's inadequacy to accommodate that demand, as well as overly optimistic, but entirely unsupported, conclusions concerning fleet mix, flight tracks, and utilization of a displaced threshold for arrivals, the EA's conclusion that the Project's noise impacts will not be significant cannot withstand public scrutiny.

A. The EA's Assumptions Are Without Factual or Analytic Bases

The EA justifies the Project by asserting that:

(1) Without the Runway Extension, the Airport will be inadequate to accommodate regional jets, ("RJs") because RJs and some business jets cannot operate non-stop to some destinations from the current 6,999 ft. runway at altitudes of 7,000 feet Above Mean Sea Level ("AMSL"), like that at which Flagstaff is located, even though commercial jets such as the Boeing 737-300 have operated at the Airport successfully for years and are projected in the EA to continue to so operate;

(2) If the Runway is built, ridership for the RJs purportedly will materialize even though total ridership has in fact declined in recent years; and

(3) The runway will remain at 6,999 ft. for approaches from the northeast, (because of implementation of a displaced threshold for approaches), even though there is no mechanism to enforce the displaced threshold.

To the extent the EA's noise analysis relies on these flawed assumptions, its conclusions are similarly flawed. First, the EA does not satisfactorily support the conclusion that RJs can not be accommodated on the existing runway length. As set forth in EA Sec. 4.1.1.1, Table 4A, page 4-6, commercial jets, including the B737, "currently" (in 2003) operate at the Airport 37 times a year, and their numbers are anticipated to increase by 400% even without the Project.[1] The EA provides no data or analysis that differentiates the operational characteristics of the large commercial airliners from those of the smaller, lighter RJs such that the former have been able to operate successfully on the existing runway lanes, while the latter is not.

Second, the EA relies on Flagstaff's altitude as an anecdotal justification for the project. It claims, in pertinent part, that "[t]he runway length analysis for the CRJ determined that the 7,014-foot elevation of Flagstaff will restrict the takeoff weight to 44,800 pounds at the design temperature

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1. The EA and Master Plan are inconsistent on this point. As set forth above, the EA anticipates a 400 % increase in operations by commercial jets even without the Project. The Master Plan, on the other hand, states that, because the current runway length is insufficient to support scheduled air service, the airport is faced with the potential of losing its current service within the next few years. Master Plan, Chapter 4, page 4-4. The EA's analysis has apparently been tainted by this analytic discord.

of 82 degrees F. This is 6,000 to 8,000 pounds less than the certificated maximum takeoff weight of the ER and LR models", EA, Chapter 1, pg 1-14. Other data in the EA, however, demonstrates that its purported limitation is irrelevant to the operational utility of the RJ. The EA's conclusions concerning the need for a runway extension are predicated on the assumption that the RJ will have a 50 seat capacity, each of the 50 seats will be filled, and each of the passengers will weigh 200 lbs. On that basis, the EA concludes that "the aircraft would be limited to 4,300 lbs of fuel", thus constraining the distance it could fly without refueling.[2]

The EA's assumption that the 50 seats will be filled runs directly counter to historical precedent, and reasonable forecasts. Historical data from FAA's OPSNET shows a consistent decline in operations on a monthly basis between the years 2002 and 2004. [See Exhibit "1" to these Comments].

Moreover, even assuming the current purported 60% load factor for the Dash 8 Aircraft could be maintained, the addition of the larger 50 seat RJ will, assuming a change in a trend toward decline and that ridership remains constant, lead to a load factor as low as 43.8%. Therefore, the entire weight justification, to the extent it is based on a load factor of 100%, is insupportable. And the EA is devoid of evidence supporting the conclusion that ridership will increase, because of, or coincident with, the introduction of RJs, especially where the evidence in the record is clear that demand for air travel into and out of Flagstaff has been declining rather than increasing over the years.

Third, evidence from other airports demonstrates that the EA's assumption of altitude constraint is unduly restrictive. An article published in the Telluride Watch in December, 2003 by the manager of the Telluride Regional Airport spoke to airport improvements planned for the Telluride airport. That airport is approximately 9,078 ft. AMSL and has a current runway length of 6,870 ft. Telluride is planning a 500 to 600 ft. extension of the runway (which will maintain a displaced threshold for landing). The article states that the length will support a Canadair 200 RJ. The airport manager further states that the new departure length will allow a Canadair to take off with at least 40 to 45 of its 50 passenger seats occupied, an 80% to 90% load factor.

Telluride is 199 miles from Denver, 290 miles from Salt Lake City and 209 miles from Albuquerque. Flagstaff, on the other hand, is 123 miles from Phoenix and 209 miles from Las Vegas. It is not clear why an airport that is much higher in elevation can accommodate a RJ that has to fly nearly 60 miles further to reach its regional hub than those departing Flagstaff, but Flagstaff

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[2] Actually, the EA is not clear as to whether the maximum range of 520 miles with a full load of fuel is calculated with or without the runway extension. If without the runway extension, it is clear that no extension is required to maximize stage lengths.

needs more runway. In short, Telluride is accomplishing its runway expansion project with a minimal runway extension and the maintenance of a displaced threshold.

Finally, the EA's assumption that a displaced threshold will consistently be utilized on approach, and for all practical purposes, the length of the runway will remain 6,999 ft. to the north east is without merit. The basis for that assumption appears to be the "presence of Mt. Elden", EA, Chapter 2, Sec. 2.1.1, which allegedly constitutes "an obstruction to the FAR Part 77 precision approach surface to Runway 21", *Id.*

However, in reviewing the ILS DME Runway 21 approach plate published by Jeppesen, all known obstructions and obstacles have been accommodated with the 9,000 ft. crossing restriction at the 5.5 DME fix. Thus, the crossing restriction clears all known obstacles, and there is no apparent reason that the approach could not be modified to allow the full length of the runway to be used. [See Jeppesen Chart attached as Exhibit "2" to there comments]. Finally, the Master Plan is dispositive on this issue. "the Facility Requirements chapter identified the future potential to supplement and eventually replace the existing ILS approach with a GPS approach of equal or lower minimums. The Category I GPS approach will likely require either a Wide Area Augmentation System (WAAS), or a Local Area Augmentation System (LAAS). <u>There is also a possibility that a GPS approach could be constructed so that the landing threshold might eventually be moved to the end of the extended runway.</u>" Master Plan, Chapter 4, page 4-10. [Emphasis added].

B. <u>As a Result of Its Flawed Assumptions and Data, the EA's Analysis of Noise Impacts is Also Flawed</u>

The EA's Noise Analysis relies not only on flawed assumptions, but apparently on questionable data as well. First, the data used in the EA's Noise Analysis is ambiguous. For example, Chapter 4, Exhibit 4A, represents only "Generalized Consolidated Flight Tracks", apparently not actual flight tracks, Chapter 4, page 4-8. Moreover, even if the flight tracks were supposed to represent actual tracks, they could not be indicative of where aircraft might fly. They do not originate from any particular runway end and merge at indiscriminate points. Moreover, the depicted flight tracks extend far beyond the noise contour depicted in Exhibit 4B. While there need not be a direct relationship between the incidence of individual noise events and cumulative noise contours, the EA contains no analysis, or even rationale as to why the apparently widespread incidence of overflight does not translate into more comprehensive contours.

The EA's Noise Contours, the ultimate result of its flawed assumption and data, are similarly ambiguous. First, the EA states that the year 2006 proposed project 65 DNL Contour will "extend

approximately 600 feet off the end of extended Runway 21", EA, Sec. 4.1.4.1, page 4-11, *i.e.* 2,400 feet off the end of the original runway threshold.

Second, the EA's comparison of the 2006 and 2003 Contour is misleading. The EA states that the existing 65 DNL contour extends, "approximately 2,200 ft from the end of Runway 21." EA, Sec. 4.1.3, page 4-9. The reference to the 2006 65 DNL contour is keyed to a spot 1,800 feet further to the northeast, giving the impression to non-experts that the 2006 contour is shorter. All references should be to the same baseline, the original runway end.

Moreover, the length of the 2006 proposed Project contour is estimated to only increase 200 feet over that of the 2003 pre-Project contour, even though the Project anticipates the substitution of 3,200 regional jets for 2,200 turbo props, a net increase by heavier, more powerful, and consequently noisier aircraft of approximately 1,000 operations, EA, Table 4A, page 4-6.

The EA contains no explicit rationale for this obvious underestimation of the noise impacts of RJs. Even if it incorrectly assumed that the Noise Analysis discounts the impact of arrivals, because of the purportedly consistent use of the displaced threshold, the record is undisputed that, as a minimum, half of the 30% of the operations on runway 3 will be departures, and of the remaining 70% of the total operations, at least half will be aircraft departing Runway 21 and are unconstrained from using the whole Runway for takeoff, thus bringing the start of the takeoff role and accompanying "power up" of departing aircrafts far closer to land uses to the northeast of the Airport.

The Noise Impacts analysis for 2011 utilizes, and even compounds, the same flawed logic. While the proposed Project fleet adds an additional 2878, heavier, noisier RJs over and above the 3,200 added in 2006, for a total of 6078, as well as 101 operations by B737's, 99 operations by heavy turbo props, and 226 operations by Lear 35s, among other additions in the categories of air taxi/cargo, GA Itinerant and GA Local, Table 4A, page 4-6, the 2011 65 DNL contour remains the same size as the 2006 Contour, extending 2,400 feet to the northeast of the original threshold.

The only rationale offered in the EA is the "gradual nationwide reduction in the number of older, louder aircraft." EA, Sec. 4.1.4.1, page 4-11. The data underlying the Noise Analysis, however, directly contradicts that proposition. Table 4A projects exactly the same type of aircraft, by INM designator, in the fleet in 2006 and 2011. As the two data points are only 5 years apart, the probability that aircraft operators will trade in for a newer, quieter aircraft by 2011 is virtually non-existent.

The EA similarly disregards mitigation for potential noise impacts on the purported grounds that "no significant noise impacts would result with implementation of the proposed action alternative." EA, Sec. 4.1.5, page 4-13. The only proposed measure, a turn down Highway 17 to mitigate takeoff noise, could just as easily be done at present, and so does not constitute sufficient mitigation for proposed Project impacts. No mitigation of any kind is proposed for operations to the northeast, presumably predicated on the same flawed assumptions, *i.e.* that the displaced threshold will remain in effect in perpetuity and be used consistently.

In summary, the misleading flight tracks, misconstruction of existing operations data, and unsupported justification for its conclusions lead to the inescapable conclusion that the Project, as proposed, will "affect public health and safety", and an EIS fully exploring the Project's implications should be prepared.

II.

THE EA ENTIRELY FAILS TO ADDRESS THE PROJECT'S WATER QUALITY IMPACTS

The EA acknowledges that 2,700 ft. of the jurisdictional waters of the United States will be "channelized" to allow for the proposed Project, and that such "channelization" requires a Department of the Army Clean Water Act Section 404 Permit. EA, Ch 4, page 4-40. *See also* 33 C.F.R. Sec. 323.3(a) ["DA [Department of the Army] Permits will be required for the discharge of dredge or fill material into the waters of the US"]. In addition, a certification is required by the State within which the project takes place, that the project will not violate applicable State Water Quality Standards ("401 Certification") See 33 USC Sec. 1341(a)(1); FAA Advisory Circular 1050.1E. Sec. 17.1(b)(1). In fact, the thresholds of significance reflected in Advisory Circular 1050.1E, Sec. 17.3 are predicated upon the issuance of such permits to "identify any deficiencies in the proposal with regard to water quality or any additional information necessary to make judgments on the significance of the impact". The same is true for wetlands.

Nevertheless, and despite the EA's further admission that "Direct wetland impacts would result from the modification of the jurisdictional area", EA Sec. 4.8.3.1, pg. 4-42, the EA anticipates that only during the final design of the proposed improvements will the final wetland impact be calculated and communicated to the Army Corps of Engineers. EA, Sec. 4.8.5 pg. 4-44. Instead, without any further analysis, or even description of the full extent and type of "channelization" to be performed, or the locations and extent of the wetlands that admittedly will be directly impacted, "]f]or the purposes of this EA, it is assumed the project would qualify for the Nationwide 14 Permit as the project would affect less than ½ acre of jurisdictional waters of the U.S." *Id.*

Both the CEQ Regulations 40 C.F.R. Sec.1508.27 and the FAA's own governing regulation, Advisory Circular 1050.1E, Sec. 501.b(10) define as a significant impact, requiring preparation of an EIS, when "the action threatens a violation of Federal, State or Local law or requirement imposed for the protection of the environment." [emphasis added] In this case, the Project threatens, and indeed virtually guarantees, with the burying of 2,700 linear feet of a jurisdictional water of the United States, and undisclosed amounts of wetland, violation of at least 3 of the 4 categories. As a result, the requirement that an EIS be performed, and that the Clean Water Act Sections 401 and 404 processes be completed in advance of the issuance of the EIS Water Quality Analysis, is indisputable.

III.

THE EA FAILS TO DISCLOSE OR ANALYZE THE IMPACT OF THE FULL SCOPE OF PLANNED SHORT TERM IMPROVEMENTS.

The EA discussion is limited strictly to the impact of the runway extension. It does not reveal, let alone analyze, the potential independent and cumulative impacts of other projects to be built during the same "short term" time period, including, but not limited to, the construction of the northern segment of a planned perimeter road, and a parallel taxiway to accompany the runway extension. See *e.g.* Master Plan, Chapter 6, page 6-3, Exhibits 6A, 6B. The failure to analyze the impacts of these additional aspects of the proposed Project constitutes an impermissible segmentation of otherwise "connected actions", 40 C.F.R. Sec. 1508.25, for the purpose of artificially minimizing the Project's potential impact.

"Connected actions . . . means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they: (i) automatically trigger other actions which may require environmental impact statements; (ii) cannot or will not proceed unless other actions are taken previously or simultaneously; (iii) are interdependent parts of a larger action and depend on the larger action for their justification." 40 C.F.R. Sec. 1508.25 (a)(1)

It is indisputable that the proposed parallel taxiway and perimeter road meet these standards. The secondary taxiway would be unnecessary without the runway extension that it is planned to support. The Master Plan reveals that the perimeter road is meant to "serve as a haul road for the runway extension", Master Plan, page 6-3, a service that would also be unnecessary without the construction of the runway extension.

The potential interactive impact of these projects are manifest, even to the hitherto uninformed. For example, the proposed perimeter road segment is planned to run along and/or over

the Rio de Flag tributary, thus apparently causing the "channelization", with attendant destruction of waters of the United States, reported to occur as a result of the Project. EA, Chapter 4, page 4-40.

Even if, for arguments sake, the undisclosed aspects of the proposed Project were not "connected actions" (which they are) they would be "cumulative actions" which "when viewed with other proposed actions have cumulatively significant impact and should therefore be discussed in the same impact statement." 40 C.F.R. Sec. 1508.25 (b)

In this case, however, both the two connected projects and the requisite EIS are ignored. Absent a complete discussion of both the full scope of the proposed Project and its impacts, the EA is fatally inadequate.

IV.

CONCLUSION

The Project is a classic case of "if you build it, they will come". The EA's projections defy the history of air service in Flagstaff, as well as the current reality that the major hub, Phoenix - Sky Harbor Airport, is only a short, scenic drive from North Central Arizona, and, thus, is in position to siphon off any potential air traffic increase at Flagstaff.

Even more important than the Project description and characterization in the EA, however, is the EA's lack of complete, coherent and internally consistent analysis of, at minimum, the whole Project's Noise and Water Quality impacts. Lone Tree therefore requests completion of a full EIS, detailing and thoroughly analyzing the Project's reasonable foreseeable impacts, and circulation for public scrutiny before any further action is taken toward Project implementation.

Lone Tree thanks the Airport and the FAA for this opportunity to comment.

Sincerely,

CHEVALIER ALLEN & LICHMAN, LLP

Barbara Lichman

Barbara E. Lichman, Ph.D.

cc: Patricia Nolan, Esq.
George Williams

Flagstaff Airport Total Operations (FAA OPSNET 8-2-05)						
Year	2002	2003	2004	2005	Loss over 2002	
JAN	4076	4552	3320	2764	-53%	
FEB	3832	3025	4520	2380	-38%	
MAR	4284	3874	4206	3239	-32%	
APR	4190	4041	4682	4048	-3.50%	
MAY	4883	4864	4902	4250	-14.90%	
JUN	5488	4493	4655			
JUL	5331	4795	4647			
AUG	5323	4583	4561			
SEPT	5169	4968	3912			
OCT	4075	4547	3372			
NOV	3554	3628	3453			
DEC	3388	4003	2764			
TTL OPS	53593	51353	48994	16681		

EXHIBIT 1

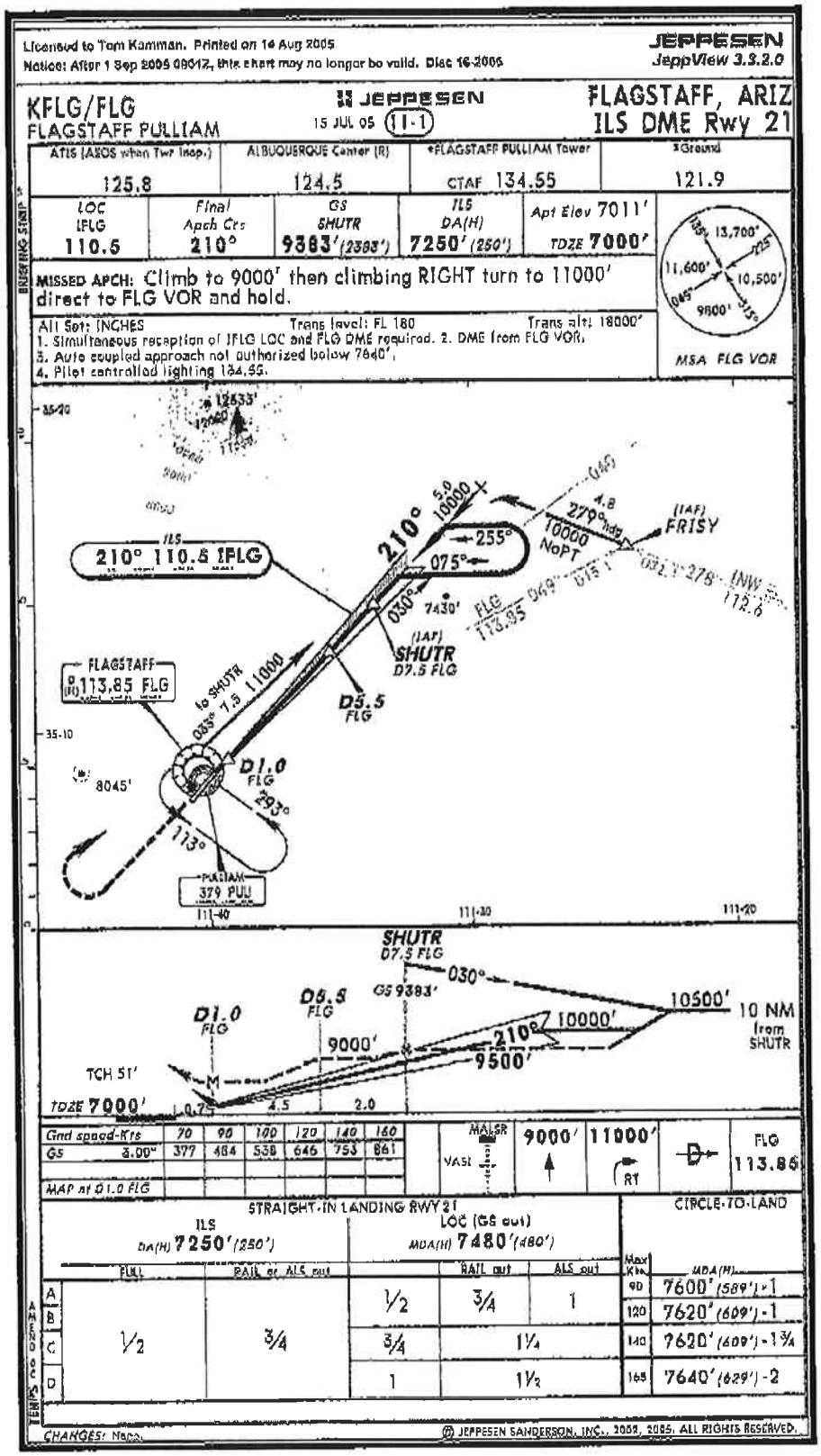
Licensed to Tom Kamman. Printed on 14 Aug 2005
Notice: After 1 Sep 2005 0901Z, this chart may no longer be valid. Disc 16-2005
JEPPESEN
JeppView 3.3.2.0
KFLG/FLG
FLAGSTAFF PULLIAM
JEPPESEN
15 JUL 05 (11-1)
FLAGSTAFF, ARIZ
ILS DME Rwy 21
ATIS (ASOS when Twr Inop.) 125.8
ALBUQUERQUE Center (R) 124.5
*FLAGSTAFF PULLIAM Tower CTAF 134.55
*Ground 121.9
LOC IFLG 110.5
Final Apch Crs 210°
GS SHUTR 9383' (2383')
ILS DA(H) 7250' (250')
Apt Elev 7011'
TDZE 7000'
MISSED APCH: Climb to 9000' then climbing RIGHT turn to 11000' direct to FLG VOR and hold.
All Set: INCHES
Trans level: FL 180
Trans alt: 18000'
1. Simultaneous reception of IFLG LOC and FLG DME required. 2. DME from FLG VOR.
3. Auto coupled approach not authorized below 7640'.
4. Pilot controlled lighting 134.55.
13,700'
11,600'
10,500'
9600'
MSA FLG VOR
ILS
210° 110.5 IFLG
FLAGSTAFF
113.85 FLG
(IAF)
FRISY
(IAF)
SHUTR
D7.5 FLG
D5.5 FLG
D1.0 FLG
PULLIAM
379 PUU
8045'
SHUTR
D7.5 FLG
GS 9383'
D5.5 FLG
D1.0 FLG
10500'
10 NM from SHUTR
10000'
9000'
9500'
TCH 51'
TDZE 7000'
Grid speed-Kts 70 90 100 120 140 160
GS 3.00° 377 484 538 646 753 861
MAP at D1.0 FLG
MALSR
VASI
9000'
11000'
RT
FLG 113.85
STRAIGHT-IN LANDING RWY 21
ILS DA(H) 7250' (250')
LOC (GS out) MDA(H) 7480' (480')
FULL
RAIL or ALS out
RAIL out
ALS out
A
B
C
D
1/2
3/4
1/2
3/4
1
3/4
1 1/4
1
1 1/2
CIRCLE-TO-LAND
Max Kts
MDA(H)
90 7600' (589') -1
120 7620' (609') -1
140 7620' (609') -1 3/4
165 7640' (629') -2
CHANGES: None.
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EXHIBIT 2

August 24, 2005

Michael Covalt
6200 S Pulliam Dr.
Suite 204
Flagstaff, AZ 86001

Please accept this as a letter of support to extend the runway at Flagstaff Pulliam Airport. As a businessman here in Flagstaff this extension would increase business and travel with more connecting flights, attracting larger airlines and aircraft into and out of Flagstaff.

Sincerely,

Alan Kindsvater

United States Department of the Interior

NATIONAL PARK SERVICE
Wupatki-Sunset Crater Volcano-Walnut Canyon
National Monuments
6400 N. Highway 89
Flagstaff, Arizona 86004

IN REPLY REFER TO:
L7621(FLAG)

August 25, 2005

Mr. Michael Covalt
Airport Manager
City of Flagstaff
Flagstaff Pulliam Airport
6200 South Pulliam Drive, Suite 204
Flagstaff, Arizona 86001

Mr. Covalt:

The National Park Service thanks you for the opportunity to provide comments on the *Draft Environmental Assessment for Proposed Airport Improvements at Flagstaff Pulliam Airport, Flagstaff, AZ.* We found the document to be well written and in general it does a good job of concisely presenting alternatives and analyzing environmental consequences.

This letter provides National Park Service comments from the Flagstaff Area National Monuments (Wupatki, Sunset Crater Volcano and Walnut Canyon National Monuments) and Grand Canyon National Park (GCNP). We have a number of general comments which we present first, and then present specific comments on noise analyses including the Tier One and Tier Two supplemental noise analyses presented in Chapter 4 of the draft document.

General comments:

1. A discussion of flight tracks or route structure at distances from airport, say 25-50 miles, that aircraft "routinely" utilize on approach and landing/departure (beyond immediate airport footprint) would be helpful in the analysis and understanding of existing community sound environment and options for traffic routing. Improving Exhibit 4A could work, or perhaps providing another graphic or descriptors in more detail would be beneficial.

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2. It is not clear how the estimates of aircraft operations in this new version compare to the last Master Plan estimates. The predicted numbers seem "high," based on current conditions and world events, especially regarding current oil prices and recent trends in air travel and airline route restructuring and solvency. Looking at past estimates for Pulliam Airport may help make current estimates more accurate and defensible.

3. It is unclear why the "No Action" alternative is modified to include "anticipated changes" to the current operations arising from Pulliam Airport operation. The EA reads as if it is to assess future growth expectations. By doing this the EA does not address or assess the true No Action, or "existing conditions," alternative. Further, the EA does not provide a true analysis of existing commercial passenger transport noise emissions or daily flight operations outside of the airport footprint.

4. To be consistent with the requirements of the National Environmental Policy Act (NEPA) regarding analysis of a "No Action" alternative, we think it is inappropriate to add future actions not yet occurring to the *No Action* alternative. These "expected" changes would be more appropriately discussed in the "Cumulative Impacts" section, or as another alternative, rather than by adding these actions to the "existing" conditions alternative.

5. We suggest it would be more appropriate to add another alternative to accomplish the analysis of small changes to a portion of the existing operations, based on your forecasts of future growth and fleet change. This new alternative would discuss the differences between the existing operations (*No Action*), with approval of the runway extension, along with the slight changes proposed to airport operations as discussed under the revised Master Plan. This new alternative can use the current information already in the Draft EA that is used to characterize much of the "No Action" scenario. A clear analysis of existing conditions, plus analysis of new Master Plan developments and aircraft daily operations is necessary to be able to differentiate the true "existing" operating conditions from those proposed under the revised Master Plan. Impacts would be different amongst the three alternatives, especially to the local community. As the Council on Environmental Quality pointed out in question 3 of the 1981 "Forty Most Asked Questions on CEQ NEPA Regulations," "in these cases, "no action" is "no change" for current management direction or level of management intensity…This analysis provides a benchmark, enabling decision makers to compare the magnitude of effects of the action alternatives."

6. A possible mitigation for FAA to consider for the NPS areas would be to route aircraft to avoid the parks entirely. Perhaps aircraft could leave Flagstaff and avoid Sunset Crater Volcano and Wupatki National Monuments and then once north of Wupatki, follow the Highway 89 corridor. This would help mask the aircraft noise produced and help to diminish aircraft noise in the more remote portions of the Navajo Nation and GCNP.

Specific comments

Section 4.1; Noise

- Pg. 4-12, Section 4.15: The opening sentence, as written, is misleading. The purpose of the extension of the runway, as described in the proposed action, is to maintain obstruction clearances for the existing instrument landing system and to meet the needs of existing and anticipated future users, larger and heavier commercial and business aircraft. To state that the longer runway is to "...gain altitude before leaving airport property ..." in support of less noise is somewhat misleading. The altitude that a plane flies at when arriving or departing this new runway will not be much different than the patterns used today. So, sound propagation will not change, noticeably, just because of a longer runway. What will change the sound environment will be the greater number of aircraft operations, the change in types of aircraft used, and the increased frequency and extended duration of aircraft operations from Pulliam Airport as a result of the runway extension.

- The statement made in Section 4.1.6, "No mitigation measures are required" needs to be reconsidered. How can the proposed action, in support of the Master Plan for Pulliam Airport, **not** affect the sound environment locally and maybe even regionally (cumulatively)?

Chapter 4.1.1; Noise Analysis Methodology section

- (Pg. 4-3): INM 6.1 is used for the aircraft noise analysis in this document, and includes Grand Canyon National Park (GCNP). The 2003 Aircraft Noise Model Validation Study produced by Harris Miller Miller & Hanson Inc. (HMMH Report # 295860.29, January 2003) for the National Park Service and FAA, showed that early INM versions (similar to INM 6.1) were consistently accurate when computing the Hourly Equivalent sound level (L_{eq}). However, INM was also found to **over-predict** noise impacts when aircraft noise is close (within 0-6 miles) and shielding is present (visible angle is small). The INM model also tends to **under-predict** when little shielding is present, at these same distances. Given this information, it is unclear at what distance and terrain shielding the EA used in the model to produce the results presented in Table 4D (p. 4-18) and Table 4E/4F (p. 4-20). This therefore casts doubt on the accuracy and acceptable "error" range of the model. This thought is supported by comparing the model results, which indicate that less noise impact is predicted, to the actual measured aircraft noise levels at GCNP (shown below in Table-1).

- Pg. 4-7: What times of the day are used in calculating operations in the INM model? If the time of day is important for input into the INM model as described on page 4-7, and the control tower is closed (summer) from 9:00 p.m. to 6:00 a.m., actual data from flight plans would only be applicable to daylight hours? During the most noise sensitive period from 10:00 p.m. to 7:00 a.m., airport staff is there only two hours. Why hasn't the airport provided better documentation and sound information for the most sensitive hours? What

are the number and aircraft type of operations used for the INM model run, for daytime and nighttime DNL calculations?

- INM Output, pg.4-8: Where are the INM Modeling input/output data and files that predict the Annual Average Noise Contours? Why are the results limited to just the 65 DNL or greater levels at the airport property. To assume that off-site noise is not an impact to consider, and to not supply data on the existing sound environment in the local community, makes the analysis incomplete.

Section 4.2; Supplemental Noise Analysis

- Pg. 4-16, end of top paragraph: Some National Parks are open to the public 24 hours a day. While many of the local parks such as Walnut Canyon National Monument, Montezuma Castle and Tuzigoot National Monuments are closed at night, many parks (including GCNP) allow camping or lodging and actually encourage nighttime activity and use through interpretive talks, walks, or group presentations and activities.

- Pg. 4-16, Operations: The EA states "The (one) airline currently providing scheduled service ...intends to change operations to an all-regional jet fleet in the near future". For the preferred alternative, "Current commercial service is provided only to one destination, Phoenix, AZ.". However, "20 Scheduled" operations in and out of Pulliam Airport is used for this analysis scenario, for assessing impacts to GCNP. Four to six flights per day is typical, however "eight flights per day, in a non-hub location like Flagstaff," will be used to model potential impacts to GCNP. This represents eight additional flights to Salt Lake City, Utah (SLC) from Flagstaff, when currently there are none.

- An additional six flights per day from Phoenix to SLC will also be included in the analysis. So, that is a total of 14 flights from southern Arizona over GCNP in the proposed alternative. Why were 20 flights over GCNP used in the assessment?

- Continuing with the "No Action," it introduces 5 daily flights to SLC, when currently there are none (see comment 4 above). This is a new alternative, not a description of "existing conditions."

Section 4.2.2.1 Tier One Analysis

- 4.2.2.1, 2nd paragraph, pg. 4-17: What is the impact from nearly 700 flights a day over Tier one parks? What are impacts from current FAA count of 1,350 daily flights over Tier Two Park GCNP?

- Table 4D: Change Walnut Creek National Monument to Walnut **Canyon** National Monument and Sunset Crater National Monument to Sunset Crater **Volcano** National Monument.

- Exhibit 4G: Tier Two Supplemental Noise analysis Grid Point Locations. There are obviously problems with the Walnut Canyon National Monument boundary as depicted on this map. NPS will contact David Fitz with Coffman Associates, Airport Consultants to work on correcting problems.

Section 4.2.2.2 Tier Two Analysis

We feel that there is insufficient information on Tier Two modeling efforts and results to understand and support the conclusions of Tier 2 sound analysis as presented. What "Time Above" hours (12 or 24) were used in Table 4E; altitude of flight track used for analysis; type of aircraft and route or track used in the analysis; specifically, what are the basic assumptions and inputs used in the Tier Two analysis relative to GCNP?

- 4.2.2.2, pg. 4-19: Opening paragraph states that "Volpe Acoustics Lab… using comprehensive operations data for GCNP and a dedicated version of INM 6.1 developed for the FAA/NPS interagency analysis of the GCNP under the National Air Tour Management Act of 2000 *(ATMP)*. Its application is appropriate for this analysis for purposes of ensuring consistency with the interagency analysis of GCNP."

  GCNP does not accept or agree with this statement for the following reasons:

  - GCNP is exempted from the regulations of the ATMP Act of 2000;
  - GCNP is mandated by the National Parks Overflights Act (1987) to substantially restore natural quiet to the park. A key sound metric GCNP is using to determine if natural quiet is restored is **audibility**, similar to the FAA term **detectability.** INM 6.1 version cannot determine audibility as it is currently configured;
  - Lastly, the FAA/NPS interagency agreement mentioned in this paragraph **is not for use of INM version 6.1**, but rather for using an updated version INM 6.2.

- Pg. 4-19, last sentence: The EA states that "…not only the aircraft flying into and out of Flagstaff Pulliam Airport were analyzed, <u>but all existing air traffic over GCNP."</u> In review of Table 4E, next page (4-20), L_{max} values range from a low of 40 dBA to a high of 50.4 dBA. Also in table 4E, the *Proposed Action* shows the model predicting aircraft noise to not exceed the 26 dB natural ambient by more than 100 minutes (total from all aircraft). However, table 4E does not indicate if this is a 12 hour or 24 hour estimate.

- After years of collected aircraft noise and sound data at Grand Canyon National Park, the values presented for current Total Time Above Natural Ambient (TA), given in Table 4E, seem to be underestimated or conservative, possibly due to basing these predictions on a 24-hour day, annual average; especially if one reviews recent data collected by the FAA (2003) and used in the Federal Interagency Committee on Aircraft Noise (FICAN) Study released in March of this year (2005), and the data collected by HMMH in 1999 as used in the Model Validation Study.

- Given in Table-1 below are GCNP measured L_{max} and Percent Time Audible values for the Bright Angel and Desert View Flight Free Zones, corresponding to the area covered by listed Grid Points in Exhibit 4J. The GCNP values represent sound measurements and field observation logs published from just seven of 32 measured sites. This small sample corresponds to several grid points off Exhibit 4J, all thought to be within the Bright Angel or Desert View Flight Free Zone, at the eastern end of the park. Table-1 below compares **12-hour day** results from the model to HMMH collected aircraft noise data:

Table 1 – Comparison of Draft EA-Table 4E for the Bright Angel and Desert View Flight Free Zones, GCNP

4J-GRID #	HMMH Report Site #	L_{max} (12) Existing	L_{max} (12) No Action	L_{max} (12) Proposed	L_{max} (12) HMMH Study Results** In dB(A)	**Time Above (TA) or Percent Time Audible****	Table 4E TA minutes	**Total Minutes of Aircraft Noise**
22	16.0**	Missing	?	Missing	27-51	49-94	?	353-677
23	16.0	47.7	47.7	47.7	27-51	49-94	100	353-677
30	2.1	49.6	49.6	49.6	41-64	5-47	100	36-338
31	2.2	46.8	46.8	46.8	32-47	8-16	100	58-115
32	2.2	47.0	47.0	47.0	32-47	8-16	84.8	58-115
36	18.0	Missing	?	?	38-72	0-35	?	0-252
37	18.0	48.8	48.8	48.8	38-72	0-35	100	0-252
43	17.0+	47.6	47.6	47.6	34-60	22-99	100	158-713
44	12.0+	44.9	44.9	44.9	31-63	1-51	10.7	7-367

** HMMH Report 290940.18, Acoustic Data Collected at Grand Canyon, Haleakala and Hawaii Volcanoes National Parks;
+ These two sample locations are within the Desert View Flight Free Zone.

- Table-1 above shows the INM 6.1 model's inability to accurately predict audibility. INM 6.1 L_{max} values are in an acceptable range in the above comparison, however overall predictive results from the model do not correspond well with field-measured results.

- Table 4E also reflects INM 6.1 predictions for the Bright Angle Flight Free Zone and the Desert View Flight Free Zone, which are clearly not aircraft noise free as the zones were intended. It is GCNP view that the addition of 14 to 20 additional flights from Pulliam Airport over the east end of the park would add about 40 to 60 minutes (2 to 3 minutes of audibility per flight) or more of additional aircraft noise per day. Given the current excess of aircraft operations and associated aircraft noise in this area of the Park, to propose adding to an already noisy overflight environment does not appear to aid the NPS and FAA efforts underway to comply with 1987 National Parks Overflights Act.

Thank you for the opportunity to comment on the draft EA for Pulliam Airport. If you have questions regarding these comments, please contact me via e-mail at palma_wilson@nps.gov or by telephone at 928-526-1157, ext. 227.

Sincerely,

/s/Palma E. Wilson
Superintendent

cc:

Michelle Simmons, FAA
William L. Menard, City of Flagstaff
Molly Waller, Coffman Associates

William L. Putnam, Trustee
Lowell Observatory
Flagstaff, Arizona, 86001 USA
tel 1-928-774-3358 x 256 FAX 774-6296
e-mail – w.putnam@lowell.edu

Michael A. Covalt, Mgr.
6200 S. Pulliam Drive #204
Flagstaff, AZ.
86001

21 August, 2005

Dear Mike;

This is to let you know that the Lowell Observatory people are solidly in favor of any step that will improve the reliability and variety of air service to Flagstaff.

We have many astronomers who routinely travel everywhere, but a great part of the time, we drive to PHX to start our journeys around North America, to Europe and elsewhere. On the 11th of next month, for example, I will go to Singapore for a three-day meeting, and return via Calgary. But it all starts with driving down I-17 to PHX.

In part, we are reluctant to use the existing FLG – PHX service because it is so unreliable, and expensive (unless you are going on via AmericaWest).

So, we're for extending the runway and making Pulliam attractive so that we can get better air service in Flagstaff.

Good luck,

Copies to:
Mayor
Council
Dave
Jim

Rich Barton

232 Forest Highlands
Flagstaff, AZ 86001
928-525-1030
Fax – 928-525-0133
E-mail – barton123@msn.com

August 7, 2005

Flagstaff City Council
211 West Aspen
Flagstaff, AZ 86001

Re: Pulliam Airport Runway Extension
Part 150 Noise Study

Dear City Council Members;

I represent a group of Forest Highlands homeowners. We support the extension of the Pulliam Airport runway.

As you know, the airport flight path is directly over Forest Highlands. We simply ask for you to take Forest Highlands into consideration when you final your 150 and 161 Study and Analyses. Specifically, we ask for you to consider the following potential noise abatement measures to benefit the Forest Highlands community:

1. Runway Use Programs
2. Flight Track Management
3. Approach Procedures
4. Departure Procedures
5. Navigation Technology
6. Construction or Modification of Airport Facilities
7. Airport Use Restrictions
8. Airport Regulations

We request that you place this letter in the record of your public hearings regarding the runway extension Noise Studies.

Thank your for your consideration.

Sincerely,

Rich Barton

Rich Barton
Forest Highlands Homeowner

Cc: Bruce Frobes, President, Forest Highlands Homeowners Association

Proposed Airport Improvements
Draft Environmental Assessment

PUBLIC HEARING/PUBLIC INFORMATION WORKSHOP MEETING COMMENT FORM

FLAGSTAFF
PULLIAM AIRPORT

Name: Paul T Jones Date: Aug. 18, 2005 Time: 6:00-8:00 p.m.

3641 E Fox Lair Dr Place: City Council Chambers

Please print neatly Flagstaff AZ 86004-7749

928-774-9177 W

Comments attached in typed format - 3 pages
Hand-delivered at 4:00 pm on Fri August 26, 2005

Written comments will also be accepted at the address provided below until 5:00 p.m. on August 26, 2005. Please Direct your comments to:

Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

August 26, 2005

Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

RE: PROPOSED AIRPORT IMPROVEMENTS
DRAFT ENVIRONMENTAL ASSESSMENT
PUBLIC HEARING/PUBLIC INFORMATION WORKSHOP
City Council Chambers, August 18, 2005 6:00-8:00 p.m.

I am a 25-year resident of Flagstaff and a private pilot with IFR certification. I am currently serving my second term on the City of Flagstaff's Airport Commission.

I speak in opposition to the proposal to extend the current runway at Pulliam Field and the Environmental Assessment presented by Coffman Associates. The information detailed within the EA is filled with inaccuracies, and forecasts contained within are optimistically erroneous by a minimum factor of 22%.

First, the current runway length of 6,999 ft. does not significantly affect the range of business jets due to the fact that very few, if any, can fly 2,000nm and have sufficient IFR reserves in a "no wind" condition. The majority of general aviation aircraft do not need 5,000 ft. let alone 6,999 ft. to take off at 7,000 ft. elevation.

Secondly, Mesa Airlines has no plan to bring CRJ's to Flagstaff. Skywest has stated that they would have to be paid by Delta Airlines or American Airlines to come to Flagstaff. Both airlines are trying to stay out of bankruptcy. I spoke to the CEO of Great Lakes Airlines and he expressed interest in picking up Flagstaff at some time in the future. Great Lakes Airlines currently flies only turbo props. Further, the sales manager of Bombardier who manufactures CRJ 200's and 700's as well as Dash 8's emailed me the specifications for the CRJs. He also stated that the Dash 8 has better performance and fuel economy at our altitude. The current flight availability using Dash 8's gives residents the choice of four to five flights a day to connect with other flights at Phoenix Sky Harbor.

My primary concern is that the City of Flagstaff does not have justification at this time to extend the runway. The extension would be 1,800 ft. closer to current developed housing communities. Residents living off the north end of the runway currently "enjoy" a noise level of approximately 88db from business jet traffic. The runway extension would increase the noise level six times to approximately 94db for the same business jet traffic. Quite frankly I believe the current jet noise is unacceptable and the idea that the City wants to increase it six times is unwarranted and unnecessary.

Coffman Associates projects 57,851 enplanements for 2005 in the section "Forecast Enplanements" Page 1-9. Judging from the numbers provided to the Airport Commission through July, 2005, the actual number of enplanements will be approximately 44,000 which is 25% less than predicted by Coffman Associates.

Coffman Associates projects 54,000 prox forecast operations (landings/takeoffs) for 2005 in the section "Forecast Operations" Page 1-11. Again, numbers provided to the Airport Commission through July, 2005, is 44,000 which is 22% less than predicted by Coffman Associates. The operations numbers have been decreasing for the last four years with a 10% drop in 2005.

Coffman Associates states in "General Aviation Runway Length Requirements" Page 1-16 that W.L. Gore & Associates' Westwind 1124 has a range of 2,121nm and the distance to their headquarters in Delaware is 1,990nm. The difference is 131nm. IFR minimum reserves are 45 min. which equates to 300nm. This would equate to coming up short by 159nm. No matter how long the runway, the fact remains that they cannot fly non-stop without a fairly strong tailwind. Very few small business jets if any have a 2,000nm range. This would preclude the argument offered by the City to extend the runway to encourage more small business jet traffic.

The option offered in Chapter Two, Alternative G, Construct New Airport, was never given sufficient discussion and consideration when presented to the Airport Commission. Furthermore, Coffman Associates did not provide any indepth information regarding this alternative. This alternative could well be the best solution because it solves the following issues currently at Pulliam:

Mountains nearby
ILS that does not work in bad weather
Snow
Density Altitude
Noise
Security
Possible runway extension in the future

One viable option would be to obtain forest service land near Twin Arrows, 17 miles east of Pulliam along I-40. Current residents on the eastside of Flagstaff would have the same travel time to this location as they do now, and those residents on the Westside of Flagstaff would have 5-10 min. longer travel time.

There are no mountains nearby which would require only a standard ILS (instrument landing system) instead of the special one currently used at Pulliam that does not work in bad weather. I have personally flown into Flagstaff during snow storms and the ILS was not working.

The amount of snow would greatly decrease due to a field elevation of approximately 6,000 ft. The lower altitude is beneficial to improved aircraft performance. There would be no limitations on runway length which could attract regional jet traffic.

This location would be well east of all the noise sensitive areas, parks, wilderness areas, and the City of Flagstaff. The location is on the edge of the Coconino National Forest with few residences. The environmental impacts would be minimal because of property being comprised of arid grassland and few trees.

From a security standpoint, the commercial operations could be built on one side of the airport and general aviation on the opposite side.

From a cost standpoint, the Coffman Associates Master Plan projects spending $80 million on the current airport. Why not divert those funds to building a new airport? With a timeframe of seven years and an approximate cost of $125 million, this seems like the best solution for the long term.

Under Aircraft Noise Analysis Page 4-5, the most noticeable problem I see is with military aircraft. A B212 is a small helicopter compared to larger and noisier Army/Marine helicopters that currently land/takeoff from Pulliam. I do not know what C-12 aircraft are, but there are numerous C-130's, L-39's, an occasional C-135 and other military aircraft that land/takeoff at Pulliam. The noise footprint provided by Coffman Associates does not include the actual military aircraft that is landing at Pulliam.

Finally, I believe Coffman Associates compiled a very poor NEPA. The data contained within appears very inflated and biased. They totally ignored the new airport option which I believe is the BEST LONG TERM OPTION.

I appreciate the opportunity to express my opinions. Please feel free to call me at 928-774-9177 if you have any questions or further clarification.

Respectfully submitted,

Paul T. Jones

Paul T. Jones
3641 E. Fox Lair Dr.
Flagstaff, AZ 86004-7749

Molly

AIRPORT PLANNING IS OUR ONLY BUSINESS

www.coffmanassociates.com

Coffman Associates
Airport Consultants

July 21, 2005

Ms. Cindy Lester
Chief
U.S. ARMY CORPS OF ENGINEERS
AZ Section - Regulatory Branch
3636 North Central Avenue, Suite 760
Phoenix, AZ 85012-1936

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Ms. Lester:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

Your agency was contacted in September 2002 regarding potential concerns related to the airport improvements. The purpose of this letter is to make you aware of the availability of the draft document. Beginning July 19, 2005, a copy of the Draft EA will be available for public review at the following locations during normal business hours:

- City Hall - 211 West Aspen Ave.
- Library - 300 West Aspen
- Airport Administration - 6200 S. Pulliam Dr, Suite 204
- Western-Pacific Region, FAA - 15000 Aviation Boulevard, Lawndale, California

The document will also be available for viewing and comment on the following website: www.coffmanassociates.com. Written comments regarding the adequacy of the information disclosed within the Draft EA will be accepted at the address provided below until 5:00 p.m. mountain standard time (MST) on August 26, 2005. Please mail your comments to:

Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

Additionally, a public workshop and public hearing will be held regarding the Draft EA between the hours of 6:00 p.m. and 8:00 p.m. on Thursday, August 18, 2005 at City Council Chambers, 211 West Aspen Avenue, Flagstaff, Arizona.

Should you have any questions or comments regarding the availability of this document, please do not hesitate to contact me or Jim Harris. I can be reached at (816) 524-3500 and Jim can be reached at (602) 993-6999.

Sincerely,

Molly Walter

Molly Walter
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

Kansas City • Phoenix

237 N.W. Blue Parkway, Suite 100, Lee's Summit, MO 64063 • Phone: 816.524.3500 • FAX: 816.524.2575

July 21, 2005

Mr. Michael Somerville
State Conservationist
U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service
3003 North Central Avenue, Suite 800
Phoenix, AZ 85012-2945

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Somerville:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

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Should you have any questions or comments regarding the availability of this document, please do not hesitate to contact me or Jim Harris. I can be reached at (816) 524-3500 and Jim can be reached at (602) 993-6999.

Sincerely,

Molly Walter
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. Sam Spiller, Field Supervisor
U.S. DEPARTMENT OF INTERIOR
Fish and Wildlife Services
Division of Ecological Services
2321 W. Royal Palm Road, Suite 103
Phoenix, AZ 85019

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Spiller:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

Additionally, a public workshop and public hearing will be held regarding the Draft EA between the hours of 6:00 p.m. and 8:00 p.m. on Thursday, August 18, 2005 at City Council Chambers, 211 West Aspen Avenue, Flagstaff, Arizona.

Should you have any questions or comments regarding the availability of this document, please do not hesitate to contact me or Jim Harris. I can be reached at (816) 524-3500 and Jim can be reached at (602) 993-6999.

Sincerely,

Molly Walter
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. Bruce Ellis, Chief Environmental Officer
U.S. DEPARTMENT OF INTERIOR
Environmental Resource Management Division
Bureau of Reclamation
P.O. Box 81169
Phoenix, AZ 81169

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Ellis:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

Your agency was contacted in September 2002 regarding potential concerns related to the airport improvements. The purpose of this letter is to make you aware of the availability of the draft document. Beginning July 19, 2005, a copy of the Draft EA will be available for public review at the following locations during normal business hours:

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Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

Additionally, a public workshop and public hearing will be held regarding the Draft EA between the hours of 6:00 p.m. and 8:00 p.m. on Thursday, August 18, 2005 at City Council Chambers, 211 West Aspen Avenue, Flagstaff, Arizona.

Should you have any questions or comments regarding the availability of this document, please do not hesitate to contact me or Jim Harris. I can be reached at (816) 524-3500 and Jim can be reached at (602) 993-6999.

Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Ms. Rosalyn Johnson
ENVIRONMENTAL PROTECTION AGENCY
Office of Federal Activities CMD-2
Region IX
75 Hawthorne Street
San Francisco, CA 94105

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Ms. Johnson:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

Additionally, a public workshop and public hearing will be held regarding the Draft EA between the hours of 6:00 p.m. and 8:00 p.m. on Thursday, August 18, 2005 at City Council Chambers, 211 West Aspen Avenue, Flagstaff, Arizona.

Should you have any questions or comments regarding the availability of this document, please do not hesitate to contact me or Jim Harris. I can be reached at (816) 524-3500 and Jim can be reached at (602) 993-6999.

Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. Ken Jacobs
Land and Minerals Staff
U.S. FOREST SERVICE
Mormon Lake Ranger District
4373 S. Lake Mary Road
Flagstaff, AZ 86001

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Jacobs:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

Additionally, a public workshop and public hearing will be held regarding the Draft EA between the hours of 6:00 p.m. and 8:00 p.m. on Thursday, August 18, 2005 at City Council Chambers, 211 West Aspen Avenue, Flagstaff, Arizona.

Should you have any questions or comments regarding the availability of this document, please do not hesitate to contact me or Jim Harris. I can be reached at (816) 524-3500 and Jim can be reached at (602) 993-6999.

Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Ms. Nancy Wrona, Division Director
ARIZONA DEPT. OF ENVIRONMENTAL QUALITY
Office of Air Quality
Mail Code 3415A-1
1110 West Washington Street
Phoenix, AZ 85007

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Ms. Wrona:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

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Should you have any questions or comments regarding the availability of this document, please do not hesitate to contact me or Jim Harris. I can be reached at (816) 524-3500 and Jim can be reached at (602) 993-6999.

Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Ms. Karen Smith, Division Director
ARIZONA DEPT. OF ENVIRONMENTAL QUALITY
Office of Water Quality
Mail Code 5000C-1
1110 West Washington Street
Phoenix, AZ 85007

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Ms. Smith:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

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Should you have any questions or comments regarding the availability of this document, please do not hesitate to contact me or Jim Harris. I can be reached at (816) 524-3500 and Jim can be reached at (602) 993-6999.

Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. Jim Sedillo
Northern Regional Office Manager
ARIZONA DEPT. OF ENVIRONMENTAL QUALITY
1515 East Cedar Avenue, Suite F
Flagstaff, AZ 86004

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Sedillo:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

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Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. Herb Guenther
Director
ARIZONA DEPT. OF WATER RESOURCES
500 North 3rd Street
Phoenix, AZ 85004

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Guenther:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

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Should you have any questions or comments regarding the availability of this document, please do not hesitate to contact me or Jim Harris. I can be reached at (816) 524-3500 and Jim can be reached at (602) 993-6999.

Sincerely,

Molly Walter
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. Jim Garrison
State Historic Preservation Officer
STATE HISTORIC PRESERVATION OFFICE
Arizona State Parks
1300 West Washington Street
Phoenix, AZ 85007

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Garrison:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Ms. Debbie Wright
Supervisor
ARIZONA GAME AND FISH DEPARTMENT
3500 South Lake Mary Road
Flagstaff, AZ 86001

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Ms. Wright:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. Mark Winkleman
State Land Commissioner
ARIZONA STATE LAND DEPARTMENT
1616 West Adams Street
Phoenix, AZ 85007

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Winkleman:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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6200 S. Pulliam Drive, Suite 204
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Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Ms. Carol Griffith
Deputy
ARIZONA STATE PARKS
1300 West Washington Street
Phoenix, AZ 85007

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Ms. Griffith:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Airport Manager
Flagstaff Pulliam Airport
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Flagstaff, AZ 86001

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Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Ms. Linda Mahone
Chairperson
Havasupai Tribe
P.O. Box 10
Supai, AZ 86435

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Ms. Mahone:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

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Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. Wayne Taylor
Chairman
Hopi Tribe
P.O. Box 123
Kykotsmovi, AZ 86039

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Taylor:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

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Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. Gerald Calnimptewa
Chief of Staff
Hopi Tribe
P.O. Box 123
Kykotsmovi, AZ 86039

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Calnimptewa:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Flagstaff Pulliam Airport
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Flagstaff, AZ 86001

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Sincerely,

Molly Walter
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Ms. Louise Benson
Chairman
Hualapai Tribe
P.O. Box 179
Peach Springs, AZ 86434

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Ms. Benson:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
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Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. Johnny Levi, Sr.
President
San Juan Southern Paiute Tribe
P.O. Box 1989
Tuba City, AZ 86045

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Levi:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Flagstaff, AZ 86001

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Sincerely,

Molly Walter
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. Patrick Sandoval
Chief of Staff
Navajo Nation
P.O. Drawer 9000
Window Rock, AZ 86515

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Sandoval:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
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Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. Joe Shirley, Jr.
President
Navajo Nation
P.O. Drawer 9000
Window Rock, AZ 86515

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Shirley:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Ms. Jamie Fullmer
Chairman
Yavapai-Apache Nation
2400 Datsi St.
Camp Verde, AZ 86322

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Ms. Fullmer:

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Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. Bill Towler
Community Development Director
COCONINO COUNTY
Community Development Department
2500 North Ft. Valley Road, #1
Flagstaff, AZ 86001

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Towler:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Molly Waller
Airport Environmental Planner

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Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. Todd Graeff
COCONINO COUNTY
Parks and Recreation Department
Ft. Tuthill
Flagstaff, AZ 86007

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Graeff:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

Your agency was contacted in September 2002 regarding potential concerns related to the airport improvements. The purpose of this letter is to make you aware of the availability of the draft document. Beginning July 19, 2005, a copy of the Draft EA will be available for public review at the following locations during normal business hours:

- City Hall - 211 West Aspen Ave.
- Library - 300 West Aspen
- Airport Administration - 6200 S. Pulliam Dr, Suite 204
- Western-Pacific Region, FAA - 15000 Aviation Boulevard, Lawndale, California

The document will also be available for viewing and comment on the following website: www.coffmanassociates.com. Written comments regarding the adequacy of the information disclosed within the Draft EA will be accepted at the address provided below until 5:00 p.m. mountain standard time (MST) on August 26, 2005. Please mail your comments to:

Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

Additionally, a public workshop and public hearing will be held regarding the Draft EA between the hours of 6:00 p.m. and 8:00 p.m. on Thursday, August 18, 2005 at City Council Chambers, 211 West Aspen Avenue, Flagstaff, Arizona.

Should you have any questions or comments regarding the availability of this document, please do not hesitate to contact me or Jim Harris. I can be reached at (816) 524-3500 and Jim can be reached at (602) 993-6999.

Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

July 21, 2005

Mr. John Dobrinski
COCONINO COUNTY
Public Works Department
5600 East Commerce Avenue
Flagstaff, AZ 86004

RE: ***Availability of Draft Environmental Assessment Flagstaff Pulliam Airport***

Dear Mr. Dobrinski:

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a Draft Environmental Assessment (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801-foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

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Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

Additionally, a public workshop and public hearing will be held regarding the Draft EA between the hours of 6:00 p.m. and 8:00 p.m. on Thursday, August 18, 2005 at City Council Chambers, 211 West Aspen Avenue, Flagstaff, Arizona.

Should you have any questions or comments regarding the availability of this document, please do not hesitate to contact me or Jim Harris. I can be reached at (816) 524-3500 and Jim can be reached at (602) 993-6999.

Sincerely,

Molly Waller
Airport Environmental Planner

C: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

Proposed Airport Improvements
Draft Environmental Assessment

PUBLIC HEARING/PUBLIC INFORMATION WORKSHOP MEETING ATTENDANCE RECORD

FLAGSTAFF
PULLIAM AIRPORT

Meeting Public Hearing

Date: Aug. 18, 2005 Time: 6:00-8:00 p.m.

Place: City Council Chambers

Please print neatly

NAME	REPRESENTING	PHONE #/E-MAIL
1. Matt Brydenthal	Coldwell Banks	ph.#: e-mail:
2. Steve Schwab	Ames Construction, Inc.	ph.#: 602-431-2111 e-mail: sschwab@amesco.com
3. Palma Wilson	NPS	ph.#: e-mail:
4. Steve Mitchelson	NPS	ph.#: 928-526-1157 x234 e-mail:
5. Todd Metzger	NPS	ph.#: e-mail:
6. Terri Marceron	USFS + Self	ph.#: 928 214 2433 e-mail:
7. Joe Galli	Chamber of Commerce	ph.#: 928 774.4505 e-mail:
8. Michelle Simmons	FAA	ph.#: 310 725-3614 e-mail: Michelle.Simmons@FAA.Gov
9.		ph.#: e-mail:
10.		ph.#: e-mail:
11.		ph.#: e-mail:
12.		ph.#: e-mail:
13.		ph.#: e-mail:
14.		ph.#: e-mail:
15.		ph.#: e-mail:
16.		ph.#: e-mail:
17.		ph.#: e-mail:
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19.		ph.#: e-mail:
20.		ph.#: e-mail:

Proposed Airport Improvements
Draft Environmental Assessment

PUBLIC HEARING/PUBLIC INFORMATION WORKSHOP MEETING ATTENDANCE RECORD

FLAGSTAFF
PULLIAM AIRPORT

Meeting Public Hearing Date: Aug. 18, 2005 Time: 6:00-8:00 p.m.

Place: City Council Chambers

Please print neatly

NAME	REPRESENTING	PHONE #/E-MAIL
1. BOB MILLIS	LOWELL OBSERVATORY	ph.#: 928-774-3358 e-mail: rlm@lowell.edu
2. Paul T. JONES	Airport Comission	ph.#: 928-774-9177 e-mail:
3. Mark J. Ross	Flagstaff Hospitality, Innkeepers	ph.#: 928-714-1000 e-mail: mross@swhospitality.com
4. Glenn Goodwin	Self	ph.#: 928-226-7634 e-mail:
5.		ph.#: e-mail:
6.		ph.#: e-mail:
7.		ph.#: e-mail:
8.		ph.#: e-mail:
9.		ph.#: e-mail:
10.		ph.#: e-mail:
11.		ph.#: e-mail:
12.		ph.#: e-mail:
13.		ph.#: e-mail:
14.		ph.#: e-mail:
15.		ph.#: e-mail:
16.		ph.#: e-mail:
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6 DRAFT ENVIRONMENTAL ASSESSMENT
7 PULLIAM AIRPORT RUNWAY EXTENSION
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12 City Hall
13 City of Flagstaff
14 August 18, 2005
15 6:00 p.m. to 8:00 p.m.
16
17
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19 CERTIFIED
20 COPY
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22
23 PERFORMANCE REPORTERS, INC.
121 East Birch Avenue, Suite 411
24 Flagstaff, Arizona 86001
By: Laura McDonald
25

1 MR. HARRIS: I am Jim Harris of Coffman
2 Associates, here on behalf of the City of
3 Flagstaff. Welcome to the public hearing and
4 public information workshop on the Draft
5 Environmental Assessment for proposed airport
6 improvements at Flagstaff Pulliam Airport.
7 This public hearing is called to order at
8 6:00 p.m. and will continue until at least
9 8:00 p.m. this evening.
10 This hearing is being conducted in
11 accordance with Part 152 of the Federal
12 Aviation Regulations. The purpose of this
13 hearing is to consider the economic, social,
14 and environmental effects of the proposed
15 airport development, and to determine the
16 consistency of that action with the goals and
17 the objectives of local land use plans,
18 policies, and control.
19 A Draft Environmental Assessment
20 concerning the proposed project has been
21 prepared and was made available for public
22 examination for at least 30 calendar days prior
23 to this hearing.
24 Persons present at this hearing and
25 workshop will be offered an opportunity to

present oral and written comments concerning the Draft Environmental Assessment and the proposed improvements. All comments presented before the court reporter will be recorded and transcribed for the record. The hearing portion of this meeting is not intended to be a question and answer period or a debate, but rather an opportunity to have your comments considered by the Federal Aviation Administration prior to their environmental review of this project.

If you have not already done so, please sign the attendance sheet located at the registration table. This will help the FAA and the City of Flagstaff know how many and who attended the workshop and hearing.

Should you have specific questions on the proposed improvements, the Draft Environmental Assessment, or the environmental process, you are invited to discuss them with the preparers of the Environmental Assessment. The document preparers are available throughout the workshop display area and will, if possible, answer any questions you may have regarding the project and its environmental consequences.

1 Plead keep in mind, however, that
2 statements made to them are not considered part
3 of the public hearing. If you desire your
4 comments to be part of the record, you will
5 need to either repeat the statement to the
6 court reporter or submit it in writing.
7 If you wish to speak on the record, you
8 will need to fill out one of the Speaker
9 Registration Forms which are available at the
10 registration desk. Please be sure to write
11 legibly to assist the court reporter in
12 spelling your name and address for the record.
13 Leave the completed form with the person at the
14 registration table; you will be called in the
15 order that you register to speak.
16 When you are called, please go to the
17 adjacent room and stand or sit near the court
18 reporter. You will need to state your name and
19 address for the record, let us know if you are
20 representing a business or organization, and
21 state the time of day. Also, please be sure to
22 speak slowly and enunciate throughout your
23 testimony. Please limit your comments to this
24 environmental assessment and the improvements
25 under consideration.

If you would prefer to submit a written statement, forms are available for your use. They are also at the registration table. After completing your comments, you can either return them to the person at the registration table or mail them to the address printed on the form. Written comments will be accepted through August 26, 2005.

In order to provide a fair opportunity to give oral comments to everybody desiring to do so, each person will be given three (3) minutes to testify. If you are unable to make all of the comments that you desire to during your oral testimony, or should you later desire to make additional comments, you are encouraged to submit written comments in the manner previously described.

On behalf of the project sponsors, I would like to thank you for your interest in the airport project and the public hearing process.

SPEAKER: My name is Mark Ross. I live at 1201 East Ponderosa Parkway, No. 257 here in Flagstaff, Arizona. I am the president of the Flagstaff Hospitality and Innkeepers Association. I am here on behalf of our Board

of Directors and our entire association. Our association consists of every hotel here in Flagstaff, and I am here to offer support of the proposed expansion of the runway at Pulliam Airport.

We have had an opportunity over the years to hear from our guests, their thoughts on the current ability of the airport here to handle flights coming in and going out and the number of people that are able to come here. It is our significant belief that this proposed expansion will not only assist in the expansion of the airport, but in the long term have a significant impact on the economy here in Flagstaff, and ultimately, our industry.

We have been a part of many discussions with GFEC and the Flagstaff Chamber of Commerce, and they have indicated that if these expansion plans go forward, it could potentially have a significant impact on this community, and we believe on behalf of our industry, the hospitality industry, that this will have a significantly positive impact in the long term.

That is why I am here today, to express my

1 thoughts to you, and I appreciate you being
2 here and taking the time to take those thoughts
3 down.
4 MR. HARRIS: It is now 8:00 p.m. and we
5 have no more requests to speak. There are
6 none. We call this hearing adjourned.
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2 CERTIFICATE OF COURT REPORTER

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4

5 I, LAURA ELLEN McDONALD, Court Reporter, having
6 been first duly appointed as Official Court Reporter
7 herein, do herby certify that the foregoing pages numbered 1
8 to 7, inclusive, constitute a full, true, and accurate
9 transcript of the proceedings had in the above-entitled
10 matter, all done to the best of my skill and ability.

11

12 DATED this 19 day of July, 2005.

13

14

15

16 Laura McDonald

17 Laura E. McDonald

18

19

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Proposed Airport Improvements
Draft Environmental Assessment

PUBLIC HEARING/PUBLIC INFORMATION WORKSHOP MEETING COMMENT FORM

FLAGSTAFF
PULLIAM AIRPORT

Name: Steve Schwab

Date: Aug. 18, 2005 Time: 6:00-8:00 p.m.

Place: City Council Chambers

Please print neatly

The runway extension would be an excellent economic generator for Flagstaff and Northern Arizona. Well-planned and managed growth will maintain the excellent quality of life that northern Arizonans have come to appreciate.

Written comments will also be accepted at the address provided below until 5:00 p.m. on August 26, 2005. Please Direct your comments to:

Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

AFFIDAVIT/PROOF OF PUBLICATION

STATE OF ARIZONA

} ss.

County of Coconino

Bobbie Crosby being duly sworn, deposes and says:

That she is the legal clerk of the Arizona Daily Sun

a newspaper published at Flagstaff, Coconino County, Arizona; that the legal 7040 a copy of which is hereunto attached, was first published in said newspaper in its issue dated the 17 day of July, 2005, and was published in each one issue of said newspaper for two consecutive weeks the last publication being in the issue dated the 20 day of July, 2005.

"OFFICIAL SEAL"
Lorraine Jaimes
Notary Public-Arizona
Coconino County
My Commission Expires 9/2/2006

Subscribed and sworn to before me this 20th day of July, 2005

Notary Public

My Commission expires 9/2/2006

Legal No. 7040
NOTICE OF PUBLIC HEARING
CONCERNING PROPOSED IMPROVEMENTS AT FLAGSTAFF PULLIAM AIRPORT
FLAGSTAFF, ARIZONA

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a DRAFT ENVIRONMENTAL ASSESSMENT (EA) to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801 foot extension to Runway 3-21, acquisition of an avigation easement from the U.S. Forest Service, and acquisition of property from the U.S. Forest Service. The Federal Aviation Administration (FAA) is the Lead Federal Agency for the project.

A public workshop and public hearing will be held regarding the Draft EA between the hours of 6:00 p.m. and 8:00 p.m. on Thursday, August 18, 2005 at City Council Chambers, 211 West Aspen Avenue, Flagstaff, Arizona.

Representatives of the City of Flagstaff and the consultants who prepared the document will be available at the workshop to explain the proposed project. Participants will be given an opportunity to provide formal comment on the project to a court reporter at the public hearing portion of the meeting, or to submit written comments for the record. Interested persons are invited to come at anytime between the hours provided above and participate in the workshop.

Beginning July 20, 2005, a copy of the Draft EA will be available for public review at the following locations during normal business hours:

City Hall- 211 West Aspen Ave
Library- 300 West Aspen
Airport Administration- 6200 S. Pulliam Dr, Suite 204
Western-Pacific Region, FAA, 15000 Aviation Boulevard, Lawndale, California

The document will also be available for viewing and comment on the following website: www.coffmanassociates.com.

As indicated above, the public hearing is intended to afford the public an opportunity to present oral or written comments related to the project. ALL ORAL COMMENTS WILL BE TRANSCRIBED FOR THE RECORD. Written comments will also be accepted at the address provided below until 5:00 p.m. on August 26, 2005. Please direct your comments to: Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

PUB: July 17, 20, 2005 7040

Daily Sun

P.O. BOX 1849
FLAGSTAFF, AZ 86001
PHONE: 928-774-4545
FAX: 928-773-1934

ADVERTISING NVOICE and STATEMENT

BILLING PERIOD	ADVERTISER/CLIENT
08/01/05 - 08/31/05	CITY OF FLAGSTAFF

TOTAL AMOUNT DUE	UNAPPLIED AMOUNT	TERMS OF PAYMENT
4,624.39		DUE BY THE 20TH

INVOICE	CURRENT NET AMOUNT DUE	30 DAYS	60 DAYS	90 DAYS
864242	3,325.33	1,299.06	.00	.00

PAGE #	BILLING DATE
1	08/31/05

BILLING ACCOUNT NUMBER: 101099

ADVERTISER/CLIENT NUMBER:

BILLED ACCOUNT NAME AND ADDRESS:
ATTN: CAROL
CITY OF FLAGSTAFF
211 W ASPEN
FLAGSTAFF AZ 86001

REMITTANCE ADDRESS:
ARIZONA DAILY SUN
PO BOX 1849
FLAGSTAFF, AZ 86002

PO#137208 OK CAM

PLEASE DETACH AND RETURN UPPER PORTION WITH YOUR REMITTANCE

DATE	NEWSPAPER REFERENCE	DESCRIPTION-OTHER COMMENTS/CHARGES	SAU SIZE BILLED UNITS	TIMES RUN RATE	GROSS AMOUNT	NET AMOUNT
07/31		BALANCE FORWARD				2,796.05
08/08	234907	Payment on Account				-1,496.99
08/04	623784	Plan & zone	3x20I	1		723.00
	477.48	PRA's 1601	60I	12.05		469.95
		35% Discount		-35.00%	7.03	-253.05
08/07	619880	Kw- Water Consv	6x21.5I	1		75.00
	76.20	H20 Consv	129I			
		FREE 3 COLOR 0107			1.20	0.00
08/07	619882	Kw- Water Consv	6x21.5I	1		75.00
	76.20	H20 Consv	129I			
		FREE 3 COLOR			1.20	0.00
08/07	623784	Plan & zone	3x20I	1		896.40
	910.96	PRA's 1601	60I	14.94	14.36	
08/13	623805	Request for Proposal	2x7I	1		168.70
	171.40	House Reh. RFP#26015 3105	14I	12.05	2.70	
08/14	623787	Kw	6x21.5I	1		75.00
	76.20	Parks & Rec	129I			
		FREE 3 COLOR			1.20	0.00
08/14	623788	Kw	6x21.5I	1		75.00
	76.20	~~Parks & Rec~~	129I			
		FREE 3 COLOR			1.20	0.00
08/14	623804	Notice of Pub Hrg	2x6I	1		179.28
	182.15	3801- Airport 3801	12I	14.94	2.87	
08/17	623810	P&Z	2x10I	1		241.00
	157.16	PRA's 1601	20I	12.05		156.65
		35% Discount		-35.00%	2.51	-84.35
08/21	623787	Kw	6x21.5I	1		75.00
	76.20				1.20	

STATEMENT OF ACCOUNT AGING OF PAST DUE AMOUNTS

CURRENT NET AMOUNT	30 DAYS	60 DAYS	OVER 90 DAYS	UNAPPLIED AMOUNT	TOTAL AMOUNT DUE

ARIZONA Daily Sun
1751 S. THOMPSON ST. • P.O. BOX 1849 • FLAGSTAFF, AZ 86001
PHONE: 928-774-4545 • FAX: 928-773-1934

*UNAPPLIED AMOUNTS ARE INCLUDED IN TOTAL AMOUNT DU

INVOICE	BILLING PERIOD	BILLED ACCOUNT NUMBER	ADVERTISER/CLIENT NUMBER	ADVERTISER/CLIENT NAME

ORIGINAL

Flagstaff Forty

leadership for action

August 16, 2005

Mr. Michael Covalt, Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

Dear Mr. Covalt:

On behalf of members of the Flagstaff Forty listed below, we are writing to express our support for the proposed extension of the lone runway at Flagstaff's Pulliam Airport. Flagstaff Forty is an incorporated not for profit organization in the State of Arizona, located in Flagstaff, with the mission to "...improve the greater Flagstaff area and the State of Arizona by bringing together talent, resources, and leadership to create action on priority issues." Members are senior executives of major employers in the Flagstaff area.

Reliable and more frequent air service out of Pulliam Airport is crucially important to the economic development of Northern Arizona. We believe that the runway extension, since it will allow service using regional jets, is essential to attracting additional carriers to serve Flagstaff and provide direct connections to other hubs in addition to Phoenix. In addition, the longer runway will allow more effective use of corporate jets important to a number of Flagstaff companies and to external corporations doing business in Flagstaff. Finally, the longer runway will provide a greater margin of safety for all air travelers into and out of Flagstaff, particularly under adverse weather conditions.

We urge that the Environmental Assessment (EA) prepared by the City of Flagstaff and its consultants be accepted, and that a Finding of No Significant Impact be quickly issued. We are aware of concerns about the conceivable future increase in aircraft noise over Grand Canyon as a result of expanded air service out of Flagstaff Airport. If and when such actual northbound service is proposed, we would support establishment by the FAA of a new air corridor skirting the east end of the Canyon.

Thank you for considering our views on this matter.

Yours sincerely,

David Chambers
Chairman, Flagstaff Forty

Bob Millis
Chairman, Airport Expansion Task Force

1201 West Route 66, Suite 200 ▪ Flagstaff, Arizona 86001

BOARD OF DIRECTORS:

W. David Chambers
Grand Canyon Railway
Chairman

A. Dean Pickett
Mangum, Wall, Stoops & Warden
Vice Chairman

J. R. Murray
Arizona Snowbowl
Secretary / Treasurer

Chuck Dryden
Arizona Engineering
Director

Stephanie McKinney
Greater Flagstaff Economic Council
Director

MEMBERS:

Bill Babb
Babb Financial Group

Robert Brennig
Museum of Northern Arizona

Michael Brackin
HomCo Ace Home Center

Bill Calloway
Nestle Purina

Steve Carlson
Flagstaff Medical Center

Donna Cobb
APS

Rob Elliott
Arizona Raft Adventures

John Haeger
Northern Arizona University

David Larson
Prent Corporation

LaVelle McCoy
McCoy Motors

Bob Millis
Lowell Observatory

Patrick Nackard
Nackard Bottling Co.

Bruce Nordstrom
Nordstrom & Associates

Julie Pastrick
Flagstaff Chamber of Commerce

Blake Rolley
First State Bank

Don Rowley
Arizona Daily Sun

Nathan Shelley
UniSource

John Sinninger
W.L. Gore

Sherri Slayton
Bank One

Joy Starely
Canyoneers, Inc.

Members supporting the position outlined in this letter:

Bill Babb, Babb Financial Group
Bob Breunig, Museum of Northern Arizona
Michael Brackin, HomCo Ace Home Center
Bill Calloway, Nestle Purina
David Chambers, Grand Canyon Railway
John Haeger, Northern Arizona University
Dave Larson, Prent Corporation
Lavelle McCoy, McCoy Motors
Stephanie McKinney, Greater Flagstaff Economic Council
Bob Millis, Lowell Observatory
J.R. Murray, Arizona Snowbowl
Bruce Nordstrom, Nordstrom & Associates
Julie Pastrick, Flagstaff Chamber of Commerce
Dean Picket, Mangum, Wall Stoops & Warden
Blake Rolley, First State Bank
Don Rowley, Flagstaff Publishing
Nathan Shelley, UniSource
John L. Sinninger, W.L. Gore
Sherri Slayton, Bank One
Joy Staveley, Canyoneers, Inc.

Proposed Airport Improvements
Draft Environmental Assessment

PUBLIC HEARING/PUBLIC INFORMATION WORKSHOP MEETING COMMENT FORM

FLAGSTAFF
PULLIAM AIRPORT

Name: Steve Schwab

Date: Aug. 18, 2005 Time: 6:00-8:00 p.m.

Place: City Council Chambers

Please print neatly

The runway extension would be an excellent economic generator for Flagstaff and Northern Arizona. Well-planned and managed growth will maintain the excellent quality of life that northern Arizonans have come to appreciate.

Written comments will also be accepted at the address provided below until 5:00 p.m. on August 26, 2005. Please Direct your comments to:

Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

FLAGSTAFF
PULLIAM AIRPORT

Appendix J

Response to Comments Received During the Public Comment Period on the Draft EA

Appendix J
RESPONSES TO COMMENTS RECEIVED DURING PUBLIC COMMENT PERIOD ON THE DRAFT EA

This appendix contains detailed responses to comments received during the public comment period for the *Draft Environmental Assessment for Proposed Airport Improvements at Flagstaff Pulliam Airport*. Copies of all comments received are contained within Appendix I. **Table J1** provides a list of the commentors, including the assigned comment number and the page, within this appendix, that the response(s) to their comment(s) can be found.

TABLE J1
Summary of Comments Received
Flagstaff Pulliam Airport EA

Commentor Name	Representing	Page Number(s) of Comment(s)	Comment Number(s)	Page Number(s) of Response(s)
Written Comments Received During the Public Hearing Comment Period				
Berne C. Hart	Chevalier, Allen & Lichman LLP, representing Lone Tree Investments, LLC	I-3	1	J – 5
John D. Haeger	Northern Arizona University	I-4	2-3	J – 5
Dick Hingson	Grand Canyon Trust	I – 5-6	4-10	J – 5-7
Jim McCarthy	Sierra Club – Grand Canyon Chapter	I – 7-15	11-22	J – 7-11
Dick Hingson	Self	I – 17-25	23	J – 12
Dick Hingson	Sierra Club	I – 26-28	24-34	J – 12-13
Dick Hingson	Self/Sierra Club/Grand Canyon Trust	I – 29-30	35-36	J – 13
Rory Madden	Self	I – 31	37	J – 14
Rob Wilson	Self	I – 32	38-39	J – 14
Mark Venuti	Self	I – 33	40-41	J – 14
Javier Solis	Radisson Woodlands Hotel – Flagstaff	I – 34	40- 42	J – 14
Stephanie McJinney	Self	I – 35	40-41	J – 14
Ann Heitland	RE/MAX – Peak Properties	I – 36	40-41	J – 14
James Praet	Self	I – 37	40-41	J – 14
Greg Jerome	Self	I – 38	40-41	J – 14
Meredith Disney	Self	I – 39	43	J – 14
Dietrich Mayring	Self	I – 40	40-41	J – 14
Joy Iris Staveley and Gaylord L. Staveley	Self	I – 41	44	J – 15
John McCartney	Self	I – 42	45-46	J – 15
Larry Garnello	Crystal Magic	I – 43	40-41	J – 14
Sr Nolen	Self	I – 44	40-41	J – 14
Stan Pierce	Self	I – 45	40-41, 47	J– 14-15
James Dorman	Christ's Church of Flagstaff	I – 46	40-41, 48	J– 14-15

Commentor Name	Representing	Page Number(s) of Comment(s)	Comment Number(s)	Page Number(s) of Response(s)
Christine Pierce	Self	I – 47	40-41	J – 14
Ricky Patel	Self	I – 48	40-41	J – 14
Randy Spate	Self	I – 49	40-41	J – 14
Ronald Jopf	Department of Economic Security/Employment Administration	I – 50	40-41	J – 14
David Evans	Flagstaff Chamber of Commerce	I – 51	41, 49	J– 14-15
Byron Atkinson	Jirkpatrick & Harris, P.C.	I – 52	41, 50	J– 14-15
Barry Levitan	Levitan Investment Properties & Services	I – 53	40-41, 51	J–14,J-16
Gary Smith	Self	I – 54	40-41	J – 14
Sylvie Johnson	Coldwell Banker NARICO	I – 55	40-41	J – 14
Justin Baecker	Self	I – 56	52	
V. C. Naik	Self	I – 57	40-41	J – 14
Michael Higdon	American Bullion & Coin Co.	I – 58	53	
Jevin Little	Self	I – 59	40-41	J – 14
Mark Ross	Flagstaff Hospitality and Innkeeper's Association	I – 60	40-41	J – 14
James and Marlane Spencer	Selves	I – 61	40, 54	J–14,J-16
Bill McGrath	JCPenney Co., Inc. – Flagstaff Mall	I – 62	40-41	J – 14
LaVelle McCoy	McCoy Motors - Switzer Canyon Auto Plaza	I – 63	55, 56	J – 16
Lisa Jerome	Tony's Architectural Salvage	I – 64	40-41	J – 14
Michael and Georganne Neubauer	Selves	I – 65	57	J – 16
Ian Skidmore	Self	I – 66	40-41	J – 14
Michael J. Cunningham	Self	I – 67	59	J – 17
Joyce Beaman	Southwest Hospitality Management	I – 68	40-41	J – 14
Jean Richmond-Bowman	Northern Arizona Building Association	I – 69	40-41	J – 14
Yong Yu	First State Bank	I – 70	40-41	J – 14
Ron Freitag	Self	I – 71	40-41	J – 14

Commentor Name	Representing	Page Number(s) of Comment(s)	Comment Number(s)	Page Number(s) of Response(s)
Rob Elliot	Arizona Raft Adventures	I – 72-74	60-68	J – 17-18
Stephanie McJinney	Greater Flagstaff Economic Council, Inc.	I – 75	69-70	J – 19
Marjorie and Sam McClanahan	Selves	I - 76	71-73	J – 19
Bill Calloway	Nestlé Purina PetCare	I – 77	74-76	J – 19-20
Michael Amundson	Self	I – 78	77-78	J – 20
Anna Del Paxon	Self	I – 79	40-41	J – 14
Barbara E. Lichman	Chevalier, Allen & Lichman LLP, representing Lone Tree Investments, LLC	I – 80-89	79-107	J – 20-30
Alan Jindsvater	Self	I – 90	108	J – 30
Palma E. Wilson	National Park Service	I – 91-97	109-132	J – 31-38
Bill Putnam	Lowell Observatory	I – 98	133-134	J – 38
Paul T. Jones	Self	I – 103	135-148	J – 39-44
Rich Barton	Self	I – 99	149-150	J – 44-45
Written Comments Received at the Public Hearing				
David Chambers and Bob Millis	Flagstaff Forty	I – 105-106	151-153	J – 45
Steve Schwab	Self	I – 107	154	J – 45
Verbal Comments Stated at the Public Hearing				
Mark Ross	Flagstaff Hospitality and Innkeepers Association		156-157	J – 46

RESPONSE TO COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD

Comment 1: On behalf of Lone Tree, we request an extension to September 26, 2005 to submit comments on the Flagstaff Pulliam Airport Environmental Assessment ("EA"). The additional time will be required to review the voluminous EA and the related lengthy Flagstaff Pulliam Airport Master Plan and Noise Study in order to prepare appropriate comments.

Response: **This request was addressed on August 5, 2005 in a letter from Mr. Michael Covalt, Flagstaff Pulliam Airport Manager, to Mr. Berne C. Hart, Chevalier, Allen & Lichman, LLP.**

Comment 2: The services offered by Pulliam Airport are vital for the economic vitality of the region especially tourism and education. Northern Arizona University is increasingly being attended by international and out-of-state students. We are dependent on air service from regional jets to thrive as an institution of choice in the western United States. In addition, Northern Arizona University is attempting to build a conference center and hotel on campus. It is imperative that regional jets are able to use Pulliam Airport so that we can draw conference business from throughout the United States.

Response: **Comment noted.**

Comment 3: Northern Arizona University believes strongly that Flagstaff and all of northern Arizona will benefit from the runway expansion.

Response: **Comment noted.**

Comment 4: "TA" was not sufficiently defined, in this GCNP case. It usually is referenced to x time units per period of time, above some decibel threshold. (You did better define it for the Walnut Creek data, as being average minutes in a 24-hour day above 26 dB). However, no clear definition is provided for the Grand Canyon TA data from those 36 gridpoints.

Response: **The GCNP Time Above (TA) levels vary depending upon the type of vegetation and terrain in the area of the grid point (desert scrub 20.0, pinion juniper 20.1, coniferous forest 31.0, and water 18.0 to 65.9). The ambient levels at each gridpoint are described within the Amended Draft EA, Section 4.2.**

Comment 5: Regarding "all existing air traffic" over Grand Canyon NP. This also needs a definition/clarification, in that it will need to be based on all sources, i.e., (1) commercial high altitude overflights; (2) general aviation; (3) military; (4) exempted air tours (Hualapai); (5) air tour related (reposition, transport, training, etc.); (6) NPS and FAA "administrative" flights; (7) river rafting support.

Response: **All levels of activity have been incorporated into the GCNP noise analysis using the best available data from ongoing noise assessments within and around the park area. A copy of the analysis completed by the Volpe Center is contained within Appendix L of the EA.**

Comment 6: If the TA meant "percentage of time audible", then the data in the "Existing" and "Proposed Action" columns appeared reasonable, because it closely corresponds with data recently made available from the HMMH study published in 2003 (cited in the Grand Canyon Trust letter of 8/15/03, in the DEA). It would roughly accord also with the FICAN study (Volpe and Wyle Labs) published in March 18 of this year, and available on the http://overflights.faa.gov website. Note that their TA figures are Per Cent Time Audible and had to do with commercial overflights only (excluding air tours, for example.)

Response: **TA is defined on page 4-14 of the Supplemental Noise Analysis as Time Above in minutes. The text has been revised to Time Above Ambient (TAA) to reduce the confusion with Time Audible. The Time Audible metric is not available on the current publicly released version of the Integrated Noise Model (Version 6.1).**

Comment 7: The "Proposed Action" figures are capping out at 100.0 in too many instances to be credible, unless this is "Per Cent of Time Audible Data." The "No Action" figures, conversely, are grossly exceeding 100.0 in some instances, which suggests that they are not "Per Cent Time Audible Data." In other words, there is no correspondence between what is being presented in the "Proposed Action" and the "No Action" columns.

Response: **The GCNP noise analysis uses a Time Above metric, not Time Audible. Within the analysis contained within the Draft EA, the Proposed Action analysis described in Table 4E was capped at 100.0 and the analysis for the No Action was not capped. This analysis has been revisited within the Amended Draft EA to ensure consistency within the analysis (see Appendix L). Both the Proposed Action and No Action are capped at 100.0 in the Amended Draft EA.**

Comment 8: The data for "Existing", if it is a "minutes per 24 hour day" is suggesting an average of less than 3% time audible. The best available data are saying this figure is closer to 30% time audible, at least. (A 10-fold difference.)

Response: **See responses to Comments 6 and 7.**

Comment 9: The Lmax needs also to be a bit better defined. Is this the average Lmax for all flights in the given year, or is it the Lmax for the "peak flight" or "peak day", or what?

Response: **Lmax is a single event noise descriptor that is the highest A-weighted sound level for events experienced over the 24-hour period, as represented**

by the average annual day.. Additional text was added to the Amended Draft Environmental Assessment to reduce confusion (see also Appendix L).

Comment 10: The full technical background, GCNP INM 6.1 study is what we seek now, in order that any oral or written comments may be properly informed. This will save time all around.

Response: **A detailed technical background, including model inputs, are available within the Amended Draft EA. FAA will make this document available for review prior to either signing a Finding of No Significant Impact (FONSI)/Record of Decision (ROD) or determining that a full Environmental Impact Statement (EIS) will be required.**

Comment 11: The Sierra Club's root concern is that the airport improvements will indirectly affect the natural soundscape at the Grand Canyon. You likely know that the National Park Service and the Federal Aviation Administration are legally mandated to substantially restore natural quiet at the park. Our focus is to prevent further degradation of the park soundscape.

Response: **Comment noted.**

Comment 12: Specifically, we would like to see Salt Lake City bound commercial service routed east of the Grand Canyon Special Flight Rules Area.

Response: **The recently formed Grand Canyon Working Group is currently evaluating noise reduction techniques such as this. The City of Flagstaff has no direct control over aircraft utilizing their airport once the aircraft have left the ground; however, the city will make every effort to encourage pilots utilizing the airport to avoid overflight of the Grand Canyon National Park (GCNP). Should a commercial service provider choose to service the Salt Lake City market, the city will lobby this provider to select a high altitude victor route which will avoid the GCNP. Measures such as these are included within the text of Chapter Four of the Amended Draft EA.**

Comment 13: Table 1A contains a 61 percent over-projection of U.S. domestic enplanements for Y2015, compared against best available data (FAA's 2005 Aerospace Forecasts.)

Response: **This inconsistency is a typographical error. The table shows the forecasts through 2015, but the U.S. Domestic Enplanement forecasts for 2025 was inadvertently inserted for 2015. The forecast figure of 1,464,300 enplanements will be replaced with the correct figure of 989,200.**

Comment 14: Table 1B contains an approximately 20 percent over-projection of Flagstaff Airline Annual Operations for Y2010. This error is then carried over into Forecast Summary Table 1C, inflating Total Airport Operations for Y2010.

Response: **These figures are not over-projections. The original draft of the *Flagstaff Pulliam Airport Master Plan* was submitted to the Planning Advisory Committee at its first meeting on December 11, 2002. After review by the committee, the draft document was then submitted to the FAA for review on January 17, 2003. After the FAA's review, a few changes were made to the forecasts, and the FAA then approved the forecasts on June 5, 2003. This updated forecast was then used in subsequent analyses contained within the airport master plan and the EA. Unfortunately, not all the tables in the early chapters of the Draft EA were fully updated to reflect these changes. Within Table 1B of the EA, the Annual Enplanements and Annual Operations figures for the years 2010 and 2015 will be corrected as follows: 2010 annual enplanements of 81,540 will be replaced with 82,000; 2010 operations figure of 6,600 will be replaced with 5,560; 2015 annual enplanements of 126,650 will be replaced with 124,000; and, annual operations of 8,200 will be replaced with 8,152.**

Comment 15: The air taxi estimate in the EA (see Table 1C) is high compared to the estimate in the master plan. The EA calls out 7,600 operations while the master plan calls out 6,600 operations. The inflated projections could be interpreted as an overstated need for the airport expansion.

Response: **See response to Comment 14. Within Table 1C, the following forecast figures will be corrected: 2010 airline operations of 6,600 will be replaced with the correct figure of 5,600; 2010 other air taxi operations of 7,600 will be replaced with the correct figure of 6,600; 2015 single-engine based aircraft of 116 will be replaced with the correct figure of 115; and, 2015 total based aircraft of 140 will be replaced with the correct figure of 139. These inconsistencies between the Airport Master Plan and the EA are a result of transcription errors. <u>The misprints were by no means intentional or meant to provide an overstated need for the airport expansion. The fact remains that the Master Plan established the need for the runway extension, using the correct figures.</u> The Master Plan is the guiding document for the airport improvement recommendations, and the Amended Draft EA is corrected to ensure consistency with the Master Plan.**

Comment 16: The errors are apparently compounded by the further failure to update either the referenced master plan or the EA with best available data. Best available data would have been the current FAA Aerospace Forecasts FY 2005-2016 (March 2005) and the current FAA Terminal Area Forecasts 2004-2020 (March 2005). The Master Plan only references the outdated FAA's Aerospace Forecasts – Fiscal Years 2002-2013, published in March 2002, and the outdated FAA Terminal Area Forecasts 2001-2015. Both the Airport Master Plans and the EA forecasts are therefore now at least three years out of date.

Response: **The March 2002 publication was the best available data at the time the forecasts were prepared. The forecasts are one of the initial things that**

must be prepared before the Master Plan and EA processes can begin. The forecasts must be approved by the FAA before they can be used in later analyses. This review and approval generally takes about six months, which is about the time it took from submittal to the FAA (January 17, 2003) to their approval (June 5, 2003) Since the remainder of the master planning and EA processes can typically carry on for two years or more, inevitably newer data becomes available over time. Constantly updating to the "best available data" only serves to delay the process as both studies would have to be revised on a regular basis, making them virtually impossible to complete. The value of this constant updating is far offset by the costs in manpower that it would require.

During the study process, changes in activity were monitored. If there were events that would have altered the timing of the need for a project, the capital improvement schedule would have been revised as necessary. The historic activity statistics in the Draft Master Plan were updated to include 2003 data. Nothing was found, however, that would suggest the recommendations of the Master Plan or the resulting contents of the EA be altered.

The changes in the FAA forecasts over the past three years would have a minimal affect on the forecasts and the recommendations of the Master Plan and the resulting Environmental Assessment. The comment focuses on U.S. domestic enplanements, so they are used as the example here. The 2010 FAA forecast of U.S. domestic enplanements in the March 2002 publication was 815.4 million. The updated FAA forecast as of March 2005 was 777.8 million. That is a difference of 4.6 percent. The 2015 forecasts changed from 989.2 million in the March 2002 document to 907.8 million in the March 2005 document. This is a difference of 8.2 percent. In either case, this would have a minor affect on Flagstaff's enplanement forecast, changing it from 82,000 to 78,000 in 2010, and from 124,000 to 113,000 in 2015. With a growth rate of approximately 7,000 enplanements per year, the same forecast enplanement levels would effectively be achieved only one year later.

Such a minor alteration of the forecast does not affect the purpose and need for the proposed action, as the need for the runway extension is for business jets that currently use the airport, as well as to serve regional jets that are already dominant in the aircraft fleet of the airline currently serving the airport. <u>If anything, maintaining the forecasts as they are stated provides a "worst case" evaluation of potential environmental impacts.</u>

Comment 17: The purported cumulative noise impacts analysis actually appears to be an incremental noise study.

Response: **The GCNP analysis prepared for the EA was revisited and additional modeling scenarios were formulated to clarify potential project impacts.**

The modeling scenarios outlined within the Amended Draft EA include the following:

1. **No Action Alternative (assuming Beech 1900 turboprop operations) analyzing only the Flagstaff commercial service overflights over GCNP. Other GCNP overflights will not be included.**

2. **Proposed Action Alternative (assuming regional jet operations) analyzing only the Flagstaff commercial service overflights over GCNP. Other GCNP overflights will not be included.**

3. **No Action Alternative (cumulative) which evaluates ALL future aircraft overflights including the introduction of the Beech 1900 from Flagstaff. All overflights include general aviation, commercial, air tour, and military overflights.**

4. **Proposed Action Alternative (cumulative) which evaluates ALL future aircraft overflights including the introduction of the regional jet from Flagstaff.**

5. **Proposed Action Alternative with no commercial service, originating from Flagstaff Pulliam Airport, over GCNP. This evaluation will incorporate all future overflights of GCNP including the increased business jet forecasts resulting from the proposed action alternative. All future overflights is defined as the continued growth of general aviation, commercial, military, and air tour operations originating from any and all airports.**

6. **Existing Condition with current activity over the GCNP and no additional flights from Flagstaff.**

See Appendix L for a copy of the analysis results.

Comment 18: The baseline situation is that there currently is no commercial direct service between Flagstaff and Salt Lake City. There is no record of any such service being imminently developed or planned, absent a lengthened runway. Therefore, it was inappropriate to factor such service into the No Action Alternative. (See EA's pre-stipulations, Sec. 3.5.)

Response: **Historically, service has been provided to Salt Lake City from Flagstaff. In the 1980s, service was provided to Salt Lake City via St. George Airport and Page Airport by SkyWest. As stated within the Airport Master Plan, at least one provider other than Mesa, which currently provides commercial air service, has indicated interest in serving Flagstaff to destinations other than Phoenix.**

For the purposes of the EA, it was determined that, in order to properly evaluate the potential environmental impacts of the proposed airport

development, the possibility of serving additional markets from Flagstaff would need to be evaluated. Because of the historical service to Salt Lake City and the ability of select turboprop aircraft to reach that destination, it was determined that ignoring the potential of additional service markets would be naïve and would misrepresent potential impacts which could result from not developing the proposed airport improvements. A "worst case" scenario was developed to allow for proper evaluation of environmental impacts with and without the proposed airport improvements.

Comment 19: A credible cumulative impacts analysis would require, at minimum, the comparison of a No Action Alternative using *no* Flagstaff-Salt Lake City commercial flights, against the Proposed Action Alternative, which is specifically to foster such flights, using regional jets.

Response: **An existing condition scenario was prepared that assumes no Flagstaff to Salt Lake City activity. The combination of the scenarios listed above in Response to Comment 17 can be used to gauge the potential impacts of activity between Flagstaff and Salt Lake City.**

Comment 20: We ask that the draft EA be temporarily withdrawn until at least these gross errors are corrected.

Response: **Comment noted. The Draft EA was not withdrawn as it was determined that none of the highlighted errors would affect the analyses conducted for the EA. See responses to Comments 13 through 16.**

Comment 21: The comment period should not commence before the Master Plan becomes properly updated, particularly if it is being referenced in the EA. Therefore, we request an extension of any comment period to 30 days after an updated Master Plan could be approved. The city council addresses this issue on 16 August so the EA comment extension would be 16 September 2005.

Response: **The Airport Master Plan, which was brought before Flagstaff City Council on August 8, 2005, did not require any updating; the information contained within the document was correct. After reviewing the comments received during the comment period, as well as the attendance at the Public Information Workshop and Public Hearing, it was determined that an extension to the public comment period is not warranted. Those that commented on the Draft EA will have an opportunity to comment on the Amended Draft EA prior to FAA's decision regarding the issuance of a FONSI/ROD or the preparation of an EIS.**

Comment 22: We also request that there be a special seminar for all interested members of the public, concerning the Supplemental Noise Analysis.

Response: **A Public Information Workshop was held on August 18, 2005 from 6:00 p.m. to 8:00 p.m. The purpose of this workshop was to allow interested**

parties to converse one-on-one with the document preparers. Individuals requesting the seminar described in the comment above were invited to the workshop and hearing, but did not attend. The low attendance at the workshop (12 individuals) would have allowed for a great deal of one-on-one interaction with interested parties.

Comment 23: Their forecasts, as with the EA, are *not* based on currently best available data. They are outdated now, by three years. They should be updated with the FAA's 2005-2016 Aerospace Forecasts (March 2005), and the FAA's 2004-2020 Terminal Area Forecasts (March 2005).

Response: **See response to Comment 16.**

Comment 24: That the City (or the FAA) temporarily withdraw the draft EA, until at least its most serious deficiencies were corrected (as outlined in the letter and in our presentation), *and* best available forecast data, i.e., from FAA (March 2005), be properly provided within this EA itself.

Response: **See response to Comment 20.**

Comment 25: That the Comment Period on the EA be extended to September 16, since comment really ought not commence until a minimally professional, *adequate*, draft EA document had been readied.

Response: **See response to Comment 21.**

Comment 26: . . . the City require from the consultants that a special public seminar be conducted immediately *prior* to the August 18 Workshop/Public Hearing.

Response: **See response to Comment 22.**

Comment 27: It failed to specify the precise trajectory of the chosen, direct service, airline route (FLG-SLC) being modeled over the Park. It also failed to clarify the rationale by which the route was determined.

Response: **An exhibit which depicts the potential modeled service route(s) over GCNP is included within the Amended Draft EA. The rationale for determining the route(s) is also described.**

Comment 28: The contractor's construction of the "No Action" alternative here modeled was inadmissible, for reasons succinctly stated in the Sierra Club letter, and in Sec. 3.5 of the EA, entitled "Past, Present, and Reasonably Foreseeable Future Actions."

Response: **See response to Comment 19.**

Comment 29: Lack of specificity as to which flight altitudes were being purportedly modeled for this (supposedly) "all existing aircraft" study over the Park, compared to

those flight altitudes, and aircraft types being excluded (for example, air tours, and their support operations).

Response: **Information regarding flight altitudes input into the noise model is included within the Amended Draft EA. No aircraft overflights were excluded from the noise analysis.**

Comment 30: Also failure to show the timeline of comparison between alternatives.

Response: **The comparison timeline is described within the Amended Draft EA.**

Comment 31: The failure of the FAA's INM 6.1 noise model on the "Time Above" (TA) metric for Grand Canyon National Park, and/or on its data presentation.

Response: **See responses to Comments 7 and 17.**

Comment 32: The failure within the EA to cite any written Technical Report, readily available to the commenting public on a timely basis, which would enable reasonable interpretation of the above problems.

Response: **See response to Comment 10.**

Comment 33: The surprising lack of correspondence between these noise modeling results, and recent, "best available data" for GCNP noise, including the FICAN March 2005 study published and available at http://overflights.faa.gov.

Response: **See response to Comment 17. To ensure that best available data was used for the GCNP analysis, Volpe was brought on-board the project team to assist with needed analyses. Volpe is currently involved with the analyses occurring at GCNP and are the repository for any and all data acquired and prepared for GCNP aircraft noise analysis.**

Comment 34: Specifically, we would like to see Salt Lake City bound commercial service routed east of the Grand Canyon Special Flight Rules Area. A minor realignment of the authorized route for this traffic towards the east would evidently keep noise out of the park, and obviate the need for a detailed cumulative impact analysis on the Grand Canyon, or possibly an EIS.

Response: **See response to Comment 12.**

Comment 35: Please let me know in reply how, and when, I may access this supporting background research document. In the absence of seeing it, as you know, I, and the Sierra Club's Grand Canyon Chapter, have begun to raise unanswered questions within public comments.

Response: **See response to Comment 10.**

Comment 36: We also wish to know when you can schedule our requested seminar, for interested members of the entire public, prior to the 6 pm work shop, re: the research study underlying the Grand Canyon noise analysis.

Response: **See response to Comment 22.**

Comment 37: I am writing this letter in strong support of the Environmental Assessment and Master Plan that has been developed for Pulliam Field.

Response: **Comment noted.**

Comment 38: I believe that the currently planned runway expansion at Flagstaff Airport is critical to the sustainability of Flagstaff's business economy. Clearly, we need additional high paying jobs in Flag. In order to attract new businesses, we need to continue the building of office space at the airport and improve the other airport facilities to support the added business.

Response: **Comment noted.**

Comment 39: All of the residents of Flagstaff will benefit from an expanded runway because it will mean larger more capable (and comfortable) aircraft will be accommodated.

Response: **Comment noted.**

Comment 40: The Flagstaff Chamber of Commerce has long been committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

Response: **Comment noted.**

Comment 41: The EA is comprehensive and has gone through a long and detailed public process. The study is thorough and complete after two years' time. The Chamber has long been supportive of this expansion on behalf of the business community.

Response: **Comment noted.**

Comment 42: As a new resident to Flagstaff and Manager of a major hotel, it is very clear to me that the city must move forward with the improvements and runway extension at the airport.

Response: **Comment noted.**

Comment 43: Having lived in Flagstaff for 21 years, I have witnessed many positive changes, among them the design and construction of the Flagstaff Pulliam Airport

replacement terminal. Unfortunately, it was ahead of its time because we built it and nobody came. The reason was because our airport facilities were inadequate to provide a safe environment for larger planes and increased service.

Response: **Comment noted.**

Comment 44: We urge you to support the Pulliam Airport Runway Extension because it is vital to economic growth in Flagstaff, increases the safety of take-offs and landings at Pulliam, provides higher quality air service with more choices and therefore more reliable air service to our City and region. When we had both Delta/Skywest and America West, the overall service was much more dependable. In any event, our city will grow and we need to be able to accommodate increased air traffic that can accommodate larger aircraft.

Response: **Comment noted.**

Comment 45: My neighbors, family and I are totally against expansion at Pulliam Airport because of the noise pollution that it introduces into our homes and neighborhoods. What was once a relaxing is being nerve raking.

Response: **Comment noted.**

Comment 46: What will become of our investment at the airport when the lack of fossil fuels reduces the air traffic. We are putting in bike trails and researching alternate fuels which will not necessarily lead to the status quo in air travel.

Response: **Comment noted.**

Comment 47: Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

Response: **Comment noted.**

Comment 48: I believe this venture is vital to the continued economic growth of our community and will a greater level of average income for our Flagstaff citizens. In addition, the runway extension will provide the opportunity for more choices in air service and will allow our airport to provide a higher level of quality air service.

Response: **Comment noted.**

Comment 49: As a full-time citizen of Flagstaff and a member of the Board of Directors for the Flagstaff Chamber of Commerce, I believe that the extension of the airport runway is important to our community. The extension of the runway will strengthen economic commerce in our region. Additionally, the runway

extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

Response: **Comment noted.**

Comment 50: I am committed to the extension of the airport runway so that we may enhance the vitality of commerce in our region. Additionally, the runway extension will help attract additional carriers which provide improved service, choices in air travel, and more visitors to our community.

Response: **Comment noted.**

Comment 51: Flagstaff needs the capacity to handle small regional jets and become a real part of the air transportation system.

Response: **Comment noted.**

Comment 52: I do not support any expansion of Pulliam Airport.

Response: **Comment noted.**

Comment 53: I agree with the extension of the runway at Pulliam because I believe it is essential to continued economic growth, increases safety as well as provide higher quality air service and choice in air service.

Response: **Comment noted.**

Comment 54: Our support for the Airport Master Plan and the runway extension Environmental Assessment (EA) depends on the input you receive from those likely to be directly impacted by the extension, most notably those who own homes and businesses in the flight path and landing pattern created by the extension and the impact of potentially larger aircraft using both. In our rush to help Flagstaff in an overall sense, let us not forget those individuals who already live and work here and have grown fond of the lifestyle they already have.

Response: **Comment noted.**

Comment 55: I am writing in support of the proposed runway extension. As a community, we need the runway extension to help ensure that we will have air service in the future as well as its accompanying benefits.

Response: **Comment noted.**

Comment 56: I understand that there are factions in opposition because some potential air routes over the Grand Canyon would have an adverse impact to the "quiet" in the canyon. To this I say that commercial air traffic could be routed East by way of the Tuba City VOR in order to mitigate this potential condition.

Response: **See response to Comment 12.**

Comment 57: I live at 130 Jona Trail in Jachina Village and am concerned that the quiet forest atmosphere that I enjoy almost daily here may be altered by the efforts of the Flagstaff community to increase their access to a transportation system that relies on large and wasteful expenditures of fossil fuels.

Response: **Comment noted.**

Comment 58: Please answer a single question for me: over which community will you route flights: Forest Highlands or Jachina Village? Is there an alternative that avoids both?

Response: **The proposed airport improvements will not change the overall manner in which aircraft arrive to or depart from the airport. However, aircraft departing to the south will likely reach a higher altitude before leaving airport property as their departure point will be located 1,800 feet farther to the north.**

Comment 59: Flagstaff does not need to expand the runway at the Pulliam Airport. We do not need more and larger planes here, along with the noise and congestion that they bring. Nor do we need to spend these taxpayer dollars on unneeded airport capacity.

Response: **Comment noted.**

Comment 60: I support expansion of the Flagstaff Pulliam Airport (the Airport), or more specifically, the lengthening of the runway by 1,800 feet.

Response: **Comment noted.**

Comment 61: I am concerned about cumulative noise impact on visitors to Grand Canyon National Park and other National Park units and federally designated wilderness areas proximal to Flagstaff Pulliam Airport and I find the EA lacking in its assessment of potential noise impacts to Grand Canyon National Park and these other federal land units. I urge mitigation of potential cumulative noise impacts over Grand Canyon National Park (the Park) specifically through routing any future high altitude regional jet route to Salt Lake City east of the Park.

Response: **See responses to Comments 12, 17, 27, and 29.**

Comment 62: Specifically for my customers, and more generally for tourism and business users of the Airport, expansion is warranted and necessary in order to compete effectively with other gateway cities to the greater Grand Canyon region, to serve greater Flagstaff and northern Arizona, and to avoid potential reduction in commercial enplanements.

Response: **Comment noted.**

Comment 63: It is redundant and unnecessary to repeat in this letter the assertions made by Jim McCarthy of the Sierra Club in his letter to you of August 4, 2005 and by Mr. Dick Hingson in his letter to the Flagstaff City Council of August 7, 2005. Of the several errors cited in said letters, the most troubling to me is the failure of Coffman Associates to use the current best available data regarding projections on national enplanements. That the Federal Aviation Administration (FAA) has already accepted these projections and they can't be altered is a cop-out that falls short and fails to relinquish Coffman's responsibility to use the current best available data. The fact of the matter is that more current national enplanement projections demonstrate a reduction in the rate of growth in enplanements that has occurred in the intervening three years since the projections cited in the EA. Using more current data could result in Flagstaff enplanement projections falling from an accelerated growth curve to a constant growth curve, but perhaps not.

Response: **See response to Comment 16.**

Comment 64: I believe that expansion of the Airport is warranted and necessary even w[h]ere projected enplanements less optimistic than presented in the EA. Most simply, the Airport needs regional jet capacity in order to serve northern Arizona's growing aviation needs for tourist and business passengers in the decades ahead.

Response: **Comment noted.**

Comment 65: My concern is over the potential cumulative impact of high altitude regional jet noise over the eastern end (and potentially elsewhere) in the Grand Canyon. I find it difficult (and ultimately I was unsuccessful) to glean from the EA what exactly is the cumulative noise impact over the Grand Canyon and where exactly that noise contribution comes from. The EA presents no maps depicting future high altitude, regional jet routes over the Grand Canyon originating from or arrive to Flagstaff and no such flights exist today to my knowledge.

Response: **See responses to Comments 5, 27, and 29.**

Comment 66: The U.S. Court of Appeals (D.C. Circuit) made it clear in its August 2002 opinion (*USATA v. FAA*) that all types of aviation noise – commercial, military, air tours, general aviation – must be considered when defining noise levels over Grand Canyon National Park.

Response: **See response to Comment 5**.

Comment 67: The FAA should stipulate that future Flagstaff to Salt Lake City flights should pass to the east of Grand Canyon National Park.

Response: **See response to Comment 12.**

Comment 68: Routing flights into and out of Flagstaff, how those decisions are made and how they end up, should be part of the public process. Along with others, I urge you to call a Regional Jet Routing Workshop to educate the public and gain their input on future route bearings that may cause cumulative noise impact to the Grand Canyon and other sensitive federal land use areas proximal to Flagstaff consistent with Section 4(f) of the Department of Transportation Act.

Response: **See response to Comment 22.**

Comment 69: The runway extension is crucial to maintaining commercial air service, expanding the air service to additional destinations, as well as for public safety.

Response: **Comment noted.**

Comment 70: During this process, it has come to our attention that future northbound navigation routes may develop that could impact further over flight at the Grand Canyon. Should future demand at the Flagstaff Pulliam Airport warrant additional northbound flights, it would become necessary to establish and utilize a navigation route east of the Grand Canyon to preserve the national park as a "quiet zone" for environmental and quality tourism purposes.

Response: **See response to Comment 12.**

Comment 71: As residents of Flagstaff since 1967, we are writing you this letter to express our support of the proposed extension of the runway at Flagstaff Pulliam Airport.

Response: **Comment noted.**

Comment 72: Safety is another concern that we have. We believe that an extension of the runway will increase the safety of all travelers, particularly in challenging weather conditions.

Response: **Comment noted.**

Comment 73: We recommend that the Environmental Assessment (EA) be accepted as quickly as possible.

Response: **Comment noted.**

Comment 74: Nestle Purina Petcare Company is in full support and accepts the Environmental Assessment (EA) Report for the extension of the runway and other improvements at the Flagstaff Pulliam Airport. Nestle Purina Petcare

Company uses this airport extensively for our transportation needs and feels it is imperative that these improvements continue.

Response: **Comment noted.**

Comment 75: It is essential that we continue to improve the service at Flagstaff Pulliam Airport for our team members going out of town on business and for visitors coming to our facility in Flagstaff.

Response: **Comment noted.**

Comment 76: In addition, our Corporate jet has to stop in Albuquerque for fuel when leaving Flagstaff in the summer due to the length of the runway.

Response: **Comment noted.**

Comment 77: And another thing. The airport already utilizes lands well north of the runway for signal lights stretching almost to Lake Mary Road. If the runway expands 1,800 feet in that direction, won't these lights also have to move 1,800 feet further our[t]?

Response: **No, the lighting will not need to extend farther. Due to the displaced threshold, the runway lighting will remain in the same location. Aircraft arriving from the north will not land on the extended runway, but will land at the current runway end. Runway lighting will be embedded into the runway as needed.**

Comment 78: Let's take care of quality of life for EXISTING homeowners in the area like myself and say no to expanded industrial pollution.

Response: **Comment noted.**

Comment 79: In summary, the Project's noise and water quality impacts will not only "affect Public Health and Safety", but also "threaten a violation of federal, state or local law or requirements imposed for the protection of the environment." They are, therefore, "significant" as that term is defined in FAA Advisory Circular 1050.1E, Sections 501.b.(2) and (10), and 40 C.F.R. Sec. 1508.27 ("CEQ Guidelines"). As a consequence, the Project constitutes a "major federal action significantly affecting the quality of the human environment", Id., for which an Environmental Impact Statement ("EIS"), rather than an EA, is required.

Response: **The level of significance of noise impacts potentially resulting from project implementation are discussed within the response to Comment 100.**

At the onset of the EA, scoping letters were sent to various resource agencies seeking comments or concerns regarding the proposed airport development. Comments received from these agencies were then utilized

during the preparation of Chapter Four of the EA. Additional letters were sent to these agencies in July 2005 to announce the availability of the Draft EA for review and comment. No comments were received from these agencies which would indicate potential significant environmental impacts. Requirements, such as the use of best management practices, outlined through the permitting process for storm water and Section 404 permits, will help to alleviate potential water quality impacts.

Comment 80: Because it is based on flawed assumptions concerning the runway extension, its relationship to demand for air travel, and the current runway's inadequacy to accommodate that demand, as well as overly optimistic, but entirely unsupported, conclusions concerning fleet mix, flight tracks, and utilization of a displaced threshold for arrivals, the EA's conclusion that the Project's noise impacts will not be significant cannot withstand public scrutiny.

Response: **See response to Comment 100.**

Comment 81: Without the Runway Extension, the Airport will be inadequate to accommodate regional jets, ("RJs") because RJs and some business jets cannot operate non-stop to some destinations from the current 6,999 ft. runway at altitudes of 7,000 feet Above Mean Sea Level ("AMSL"), like that at which Flagstaff is located, even though commercial jets such as the Boeing 737-300 have operated at the Airport successfully for years and are projected in the EA to continue to so operate; . . .

Response: **Just because an airplane is larger, does not mean that it requires a longer runway length. That is the case when comparing the takeoff performance characteristics of the Canadair Regional Jet 200 to that of the Boeing 737-300 at the high altitude of Flagstaff.**

Comment 82: If the Runway is built, ridership for the RJs purportedly will materialize even though total ridership has in fact declined in recent years; and . . .

Response: **As has been proven in many other locations with market characteristics similar to Flagstaff such as Redmond, Oregon or San Luis Obispo, California, the improvement of service with regional jets has brought an increase in passengers. This occurs due to a recapture of air travelers that have been using other, more distant airports. Flagstaff Pulliam Airport is currently capturing 26 percent of its potential traffic. Service by regional jets has the potential to increase this to as much as 50 percent over time.**

Comment 83: The runway will remain at 6,999 ft. for approaches from the northeast, (because of implementation of a displaced threshold for approaches), even though there is no mechanism to enforce the displaced threshold.

Response: **Maintaining and marking the landing threshold in its current location is, in itself, an enforcement mechanism. The markings designate the landing surface available at the airport. Airlines must abide by the airport**

limitations in accordance with their certification. Any pilot who would land short of the landing threshold for any reason other than an emergency would be in violation of Title 14 Code of Federal Regulations, and could be subject to loss of license or even criminal action.

Comment 84: As set forth in EA Sec. 4.1.1.1., Table 4A, page 4-6, commercial jets, including the B737, "currently" (in 2003) operate at the Airport 37 times a year, and their numbers are anticipated to increase by 400% even without the Project.[1] The EA provides no data or analysis that differentiates the operational characteristics of the large commercial airliners from those of the smaller, lighter RJs such that the former have been able to operate successfully on the existing runway lanes, while the latter is not. [Note: [1] is outlined in Comment 85 below.]

Response: **See response to Comment 81. In addition, it should be noted that an increase from 37 operations to 147 operations is a 300% increase, not 400%. To qualify for consideration as the critical aircraft, the aircraft must make at least 500 annual operations. Therefore, the B737 was not a significant consideration in the project design.**

Comment 85: The EA and Master Plan are inconsistent on this point. As set forth above, the EA anticipates a 400% increase in operations by commercial jets even without the Project. The Master Plan, on the other hand, states that, because the current runway length is insufficient to support scheduled air service, the airport is faced with the potential of losing its current service within the next years. Master Plan, Chapter 4, page 4-4. The EA's analysis has apparently been tainted by this analytic discord.

Response: **See response to Comment 84. The commercial jets (B737) that currently use the airport are typically unscheduled airline charter operations, and not considered scheduled commercial air service. The charter operations can be expected to continue and potentially grow even without the project. Regardless, the forecast level of 147 operations represents less than two aircraft per week. This level of operations cannot be considered as scheduled commercial air service.**

The reference paraphrased by the commentor actually reads: "Thus the airport's ability to maintain and improve upon its current level of air service could be jeopardized within the next few years."

Later, on the same page of the Master Plan, indicates: "If the current airline service were replaced, it is expected that service would be replaced by a commuter airline using a 19-seat turboprop aircraft, unless the runway is extended. This would be a significant downgrade in service."

To provide for a "worst case" no action scenario, it was assumed that an alternate commercial air service provider would begin service from Flagstaff. This is described within the response to Comment 18. The

master plan does not contain this type of an evaluation as the no action alternative within the master planning process is much different than the no action alternative evaluated within the NEPA process.

Comment 86: The EA's conclusions concerning the need for a runway extension are predicated on the assumption that the RJ will have a 50-seat capacity, each of the 50 seats will be filled, and each of the passengers will weigh 200 lbs. On that basis, the EA concludes that "the aircraft would be limited to 4,300 lbs. of fuel," thus constraining the distance it could fly without refueling.[2] [[2] Actually, the EA is not clear as to whether the maximum range of 520 miles with a full load of fuel is calculated with or without the runway extension. If without the runway extension, it is clear that no extension is required to maximize stage lengths.]

Response: **As explained in the EA on page 1-14, the limitation of the aircraft's performance restricts the takeoff weight to 44,800 pounds at the airport's elevation and design temperature. Loading the aircraft beyond this weight would prevent it from taking off, no matter how long the runway is. A minimum runway length of 8,700 feet would be needed to accommodate the 44,800-pound maximum takeoff weight.**

The "full load" referred to in the EA is a full load of passengers. The amount of fuel is set by the distance of range to the destination. Therefore, with a full load of passengers, the aircraft can carry enough fuel to travel 520 miles and still have a takeoff weight at or below 44,800 pounds.

Comment 87: The EA's assumption that the 50 seats will be filled runs directly counter to historical precedent, and reasonable forecasts. Historical data from FAA's OPSNET shows a consistent decline in operations on a monthly basis between the years 2002 and 2004.

Response: **See response to Comment 82.**

Comment 88: Moreover, even assuming the current purported 60% load factor for the Dash 8 Aircraft could be maintained, the addition of the larger 50-seat RJ will, assuming a change in a trend toward decline and that ridership remains constant, lead to a load factor as low as 43.8%. Therefore, the entire weight justification, to the extent it is based on a load factor of 100%, is insupportable. And the EA is devoid of evidence supporting the conclusion that ridership will increase, because of, or coincident with, the introduction of RJs, especially where the evidence in the record is clear that demand for air travel into and out of Flagstaff has been declining rather than increasing over the years.

Response: **The load factors referred to are average load factors over the course of the year. Airline passenger loads can fluctuate from flight to flight. An airline desires the capability to operate with a full load of passengers. Otherwise, during peak periods, passengers may need to be off-loaded or even turned away. This is not only a cost in delays to the traveler but also a cost in lost**

revenue to the airline. Flagstaff Pulliam Airport experiences its highest traffic in the summer months, the time when the aircraft is going to operate with a full load the most often. These high traffic months also correspond with the warmest temperatures that command the most runway.

Comment 89: Third, evidence from other airports demonstrates that the EA's assumption of altitude constraint is unduly restrictive. An article published in the Telluride Watch in December, 2003 by the manager of the Telluride Regional Airport spoke to airport improvements planned for the Telluride airport. That airport is approximately 9,078 ft. AMSL and has a current runway length of 6,870 ft. Telluride is planning a 500 to 600 ft. extension of the runway (which will maintain a displaced threshold for landing). The article states that the length will support a Canadair 200 RJ. The airport manager further states that the new departure length will allow a Canadair to take off with at least 40 to 45 of its 50-passenger seats occupied, an 80% to 90% load factor.

Response: **Unlike Flagstaff, the peak season for Telluride is during the winter months. The runway length information quoted above was based upon a design temperature of just 43 degrees F. Even then, at the airport's 9,078-foot elevation, the aircraft must off-load because the airport is limited on the runway length that it can add due to terrain.**

Comment 90: Telluride is 199 miles from Denver, 290 miles from Salt Lake City, and 209 miles from Albuquerque. Flagstaff, on the other hand, is 123 miles from Phoenix and 209 miles from Las Vegas. It is not clear why an airport that is much higher in elevation can accommodate a RJ that has to fly nearly 60 miles further to reach its regional hub than those departing Flagstaff, but Flagstaff needs more runway. In short, Telluride is accomplishing its runway expansion project with a minimum runway extension and the maintenance of a displaced threshold.

Response: **See previous comment. In addition, from the Telluride Airport Master Plan: "...for the CRJ200, only 18 passengers can be carried on a 200 nautical mile (nm) flight in the summer with a departure length of 6,900 feet...20 passengers with a 7,200-foot departure length, 25 passengers with a 7,600-foot departure length...In the winter, at the same 200 nm stage length, the CRJ200 can carry 40 passengers...At 7,200 feet, 43 passengers can be carried. Finally, 50 passengers can be carried with departure lengths above 7,600 feet."**

Because the local topography (the Telluride Airport is located on a small mesa) restricts the length that can be developed, the planned length was limited to 7,320 feet. Even at 43 degrees, the runway will not be capable of handling a full passenger load. During the summer, the aircraft would only be able to carry 26 passengers. Like many Colorado airports, Telluride expects to attract regional jet service only during the ski season.

Comment 91: Finally, the EA's assumption that a displaced threshold will consistently be utilized on approach, and for all practical purposes, the length of the runway will remain 6,999 ft. to the northeast is without merit.

Response: **See response to Comment 83.**

Comment 92: The basis for that assumption appears to be the "presence of Mt. Elden," EA, Chapter 2, Sec. 2.1.1., which allegedly constitutes "an obstruction to the FAR Part 77 precision approach surface to Runway 21," *Id.*

However, in reviewing the ILS DME Runway 21 approach plate published by Jeppesen, all known obstructions and obstacles have been accommodated with the 9,000 ft. crossing restriction at the 5.5 DME fix. Thus, the crossing restriction clears all known obstacles, and there is no apparent reason that the approach could not be modified to allow the full length of the runway to be used. [See Jeppesen Chart attached as Exhibit "2" to the[ir] comments.] Finally, the Master Plan is dispositive on this issue. "the Facility Requirements chapter identified the future potential to supplement and eventually replace the existing ILS approach with a GPS approach of equal or lower minimums. The Category I GPS approach will likely require either a Wide Area Augmentation System (WAAS), or a Local Area Augmentation System (LAAS). <u>There is also a possibility that a GPS approach could be constructed so that the landing threshold might eventually be moved to the end of the extended runway</u>." Master Plan, Chapter 4, page 4-10. [Emphasis added.]

Response: **The master plan determined that the additional runway length is not needed for landing. The ALP indicates the displaced threshold. Moving the threshold in the future would be subject to a new ALP approval and its own environmental review and approval.**

Comment 93: The EA's Noise Analysis relies not only on flawed assumptions, but apparently on questionable data as well. First, the data used in the EA's Noise Analysis is ambiguous. For example, Chapter 4, Exhibit 4A, represents only "Generalized Consolidated Flight Tracks," apparently not actual flight tracks, Chapter 4, page 4-8. Moreover, even if the flight tracks were supposed to represent actual tracks, they could not be indicative of where aircraft might fly. They do not originate from any particular runway end and merge at indiscriminate points. Moreover, the depicted flight tracks extend far beyond the noise contour depicted in Exhibit 4B. While there need not be a direct relationship between the incidence of individual noise events and cumulative noise contours, the EA contains no analysis, or even rationale as to why the apparently widespread incidence of overflight does not translate into more comprehensive contours.

Response: **Due to lack of radar facilities and mountainous terrain, actual real-time flight tracks are not available for Flagstaff Pulliam Airport down to airport field elevation. The noise contours within the EA were limited to the 65 DNL noise contour and above. Noise contours do, in fact, extend beyond what is depicted within the EA; however, the selection of the 65**

DNL and greater noise contours is based on guidance contained within FAA Orders 5050.4A and 1050.1E.

Comment 94: The EA's Noise Contours, the ultimate result of its flawed assumption and data, are similarly ambiguous. First, the EA states that the year 2006 proposed project 65 DNL contour will "extend approximately 600 feet off the end of extended Runway 21," EA, Sec. 4.1.4.1., page 4-11, *i.e.* 2,400 feet off the end of the original runway threshold.

Response: **Comment noted.**

Comment 95: The EA states that the existing 65 DNL contour extends, "approximately 2,200 ft. from the end of Runway 21." EA, Sec. 4.1.3., page 4-9. The reference to the 2006 65 DNL contour is keyed to a spot 1,800 feet further to the northeast, giving the impression to non-experts that the 2006 contour is shorter. All references should be to the same baseline, the original runway end.

Response: **The Proposed Action noise contours assume implementation of the proposed airport development; therefore, the description of potential impacts is derived from the actual presence of the runway extension. To base the analysis of the proposed action alternative on the existing runway end would misrepresent project impacts. Within the EA, Exhibits 4C and 4D provide a side-by-side comparison of the No Action and Proposed Action noise contours. This allows the reader to visually differentiate between the various alternatives' noise contours.**

Comment 96: Moreover, the length of the 2006 proposed Project contour is estimated to only increase 200 feet over that of the 2003 pre-Project contour, even though the Project anticipates the substitution of 3,200 regional jets for 2,200 turbo props, a net increase by heavier, more powerful, and consequently noisier aircraft of approximately 1,000 operations, EA, Table 4A, page 4-6.

Response: **As depicted on Table 4A of the Amended Draft Environmental Assessment, the 2006 No Action scenario has 4,775 commercial turboprop operations and the Proposed Action scenario has 4,308 regional jet and turboprop operations. The drop in operations with the Proposed Action is due to the higher seating capacity of the regional jets. There is also not a significant noise level difference between the regional jet and the Beech 1900 turboprop. The sound exposure level from 100 percent thrust on departure for the Beech 1900 at 400 feet of distance is 92.0 dBA as calculated by the Integrated Noise Model. The regional jet sound exposure level for similar thrust levels and distance is 93.2 dBA. Therefore, there is an actual decrease in operations offsets the slight increase in noise generated from regional jets.**

Comment 97: The EA contains no explicit rationale for this obvious underestimation of the noise impacts of RJs. Even if it incorrectly assumed that the Noise Analysis discounts the impact of arrivals, because of the purportedly consistent use of

the displaced threshold, the record is undisputed that, as a minimum, half of the 30% of the operations on Runway 3 will be departures, and of the remaining 7)% of the total operations, at least half will be aircraft departing Runway 21 and are unconstrained from using the whole runway for takeoff, thus bringing the start of the takeoff role and accompanying "power up" of departing aircrafts far closer to land uses to the northeast of the Airport.

Response: **See response to Comment 96.**

Comment 98: The Noise Impacts analysis for 2011 utilizes, and even compounds, the same flawed logic. While the proposed Project fleet adds an additional 2,878 heavier, noisier RJs over and above the 3,200 added in 2006, for a total of 6,078, as well as 101 operations by B737's, 99 operations by heavy turbo props, and 226 operations by Lear 35s, among other additions in the categories of air taxi/cargo, GA Itinerant and GA Local, Table 4A, page 4-6, the 2011 65 DNL contour remains the same size as the 2006 contour, extending 2,400 feet to the northeast of the original threshold.

Response: **See response to Comment 96.**

Comment 99: The only rationale offered in the EA is the "gradual nationwide reduction in the number of older, louder aircraft." EA, Sec. 4.1.4.1., page 4-11. The data underlying the Noise Analysis, however, directly contradicts that proposition. Table 4A projects exactly the same type of aircraft, by INM designator, in the fleet in 2006 and 2011. As the two data points are only 5 years apart, the probability that aircraft operators will trade in for a newer, quieter aircraft by 2011 is virtually non-existent.

Response: **Overall, the national business jet fleet mix will continue to transition from Stage 2 aircraft to quieter Stage 3 aircraft. The primary factors driving this change are the age of the national Stage 2 fleet and the increased hourly cost of operating these aircraft. Stage 2 aircraft were certificated prior to December 31, 1974 and will be at least 37 years old by the year 2011. A Stage 2 Gulfstream IIB aircraft has an hourly operating cost of over $3,000 while a newer, Stage 3 Gulfstream IV aircraft has an hourly operating cost of less than $2,000 according to CJS Worldwide Jet Search.**

Comment 100: The EA similarly disregards mitigation for potential noise impacts on the purported grounds that "no significant noise impacts would result with implementation of the proposed action alternative." EA, Sec. 4.1.5., page 4-13. The only proposed measure, a turn down Highway 17 to mitigate takeoff noise, could just as easily be done at present, and so does not constitute sufficient mitigation for proposed Project impacts. No mitigation of any kind is proposed for operations to the northeast, presumably predicated on the same flawed assumptions, *i.e.* that the displaced threshold will remain in effect in perpetuity and be used consistently.

Response: **FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures,* outlines the thresholds of significance that are used to determine environmental impacts. According to the order, "A significant noise impact would occur if analysis shows that the proposed action will cause noise sensitive areas to experience an increase in noise of DNL 1.5 dB or more at or above DNL 65 dB noise exposure when compared to the no action alternative for the same timeframe. For example, an increase from 63.5 dB to 65 dB is considered a significant impact." As stated within the EA, no noise-sensitive areas would experience an increase in noise of 1.5 DNL or greater, at or above the 65 DNL noise contour, when compared to the no action alternative. The number of dwelling units within the 65 DNL noise contour significantly decreases with implementation of the proposed action alternative; therefore, no significant noise impacts would result with implementation of the proposed action alternative.**

Comment 101: In fact, the thresholds of significance reflected in Advisory Circular 1050.1E, Sec. 17.3 are predicated upon the issuance of such permits to "identify any deficiencies in the proposal with regard to water quality or any additional information necessary to make judgments on the significance of the impact." The same is true for wetlands.

Response: **The entirety of the text within FAA Order 1050.1E, Section 17.3, states, "Water quality regulations and issuance of permits will normally identify any deficiencies in the proposal with regard to water quality or any additional information necessary to make judgments on the significance of impacts. If the EA and early consultation show that there is a potential for exceeding water quality standards, identify water quality problems that cannot be avoided or satisfactorily mitigated, or indicate difficulties in obtaining required permits, an EIS may be required." Early consultation undertaken during the preparation of the EA did not indicate a potential for exceeding water quality standards or difficulty in obtaining required permits. Neither the Arizona Department of Environmental Quality nor the U.S. Army Corps of Engineers (COE) indicated potential problems with permit issuance. The amount of wetland and waters of the U.S. impacts are likely below the threshold requirement for the issuance of a Nationwide permit, which does not require mitigation. Based on this information, the analysis results in less-than-significant impacts to water quality, wetlands, and waters of the U.S.**

Comment 102: Nevertheless, and despite the EA's further admission that "Direct wetland impacts would result from the modification of the jurisdictional area," EA Sec. 4.8.3.1., page 4-42, the EA anticipates that only during the final design of the proposed improvements will the final wetland impact be calculated and communicated to the Army Corps of Engineers. EA, Sec. 4.8.5, page 4-44. Instead, without any further analysis, or even description of the full extent and type of "channelization" to be performed, or the locations and extent of the wetlands that admittedly will be directly impacted, "for the purposes of this

EA, it is assumed the project would qualify for the Nationwide 14 Permit as the project would affect less than ½ acre of jurisdictional waters of the U.S." *Id.*

Response: **It is not possible to determine precise direct or indirect impacts to wetlands or waters of the U.S. prior to project design. Due to the costs involved, project design is not undertaken until the environmental documentation is complete for the project. Therefore, for the purposes of the EA, a "worst case" scenario was presented which would result in up to 2,700 feet of wetland impacts. During project design, efforts will be made to reduce this impact amount. Regardless, it is anticipated that the project will qualify for a Nationwide permit from the COE.**

Comment 103: Both the CEQ Regulations 40 C.F.R. Sec. 1508.27 and the FAA's own governing regulation, Advisory Circular 1050.1E, Sec. 501.b(10) define as a significant impact, requiring preparation of an EIS, when "the action threatens a violation of Federal, State or Local law or requirement imposed for the protection of the environment." [emphasis added] In this case, the Project threatens, and indeed virtually guarantees, with the burying of 2,700 linear feet of a jurisdictional water of the United States, and undisclosed amounts of wetland, violation of at least 3 of the 4 categories. As a result, the requirement that an EIS be performed, and that the Clean Water Act Sections 401 and 404 processes be completed in advance of the issuance of the EIS Water Quality Analysis, is indisputable.

Response: **See responses to comments 79, 100, 101, and 102.**

Comment 104: It does not reveal, let alone analyze, the potential independent and cumulative impacts of other projects to be built during the same "short term" time period, including, but not limited to, the construction of the northern segment of a planned perimeter road, and a parallel taxiway to accompany the runway extension. See *e.g.*, Master Plan, Chapter 6, page 6-3, Exhibits 6A, 6B. The failure to analyze the impacts of these additional aspects of the proposed Project constitutes an impermissible segmentation of otherwise "connected actions," 40 C.F.R. Sec. 1508.25, for the purpose of artificially minimizing the Project's potential impact.

Response: **Chapter Three, Section 3.5, outlines those projects that were evaluated within Chapter Four from a cumulative impact perspective. The projects noted within Comment 104 are included in this discussion in Chapter Three. Within Chapter Four, the cumulative impacts of these projects are specifically discussed within each of the impact categories. As other projects are developed at the airport, i.e., additional taxiways and the planned perimeter road, additional environmental analyses will be required. See response to Comment 105.**

Comment 105: It is indisputable that the proposed parallel taxiway and perimeter road meet these standards. The secondary taxiway would be unnecessary without the runway extension that it is planned to support. The Master Plan reveals that the

perimeter road is meant to "serve as a haul road for the runway extension," Master Plan, page 6-3, a service that would also be unnecessary without the construction of the runway extension.

Response: **The intent of the extension of John Wesley Powell Boulevard is to provide an additional connection between Interstate 17 and Lake Mary Road. The need for this connection is not dependent upon whether or not the runway is extended; therefore, it is considered to have "independent utility" from the runway extension project. Because it has independent utility, it is discussed from a cumulative impact perspective instead of being included as part of the proposed action alternative. Additional environmental analyses will be required prior to development of the road extension. The realigned access road may be utilized as a "haul road" during development of the runway extension and will provide and remove materials required for construction.**

Development of the parallel taxiway noted as "7" on Exhibit 6B in the Airport Master Plan is not dependent on the runway extension and, therefore, has independent utility. The future need for this parallel taxiway is not dependent upon whether or not the runway is extended and was evaluated as part of the cumulative impacts discussions within the impact categories in Chapter Four.

Comment 106: The potential interactive impact of these projects are manifest, even to the hitherto uninformed. For example, the proposed perimeter road segment is planned to run along and/or over the Rio de Flag tributary, thus apparently causing the "channelization," with attendant destruction of waters of the United States, reported to occur as a result of the Project. EA, Chapter 4, page 4-40.

Response: **See response to Comment 105. Within the EA, it states that "Cumulative impacts to wetlands are not anticipated as the permit programs implemented take into account the cumulative impact of actions and projects on the regulated resources. Periodic program reviews are conducted to ensure that the loss of regulated resources authorized through the permitting programs do not constitute an individual or cumulatively unacceptable impact. The proposed action, as well as other actions impacting this resource, will be subject to this regulatory review process."**

Comment 107: Even if, for argument's sake, the undisclosed aspects of the proposed Project were not "connected actions" (which they are) they would be "cumulative actions" which "when viewed with other proposed actions have cumulatively significant impact and should therefore be discussed in the same impact statement." 40 C.F.R. Sec. 1508.25 (b)

Response: **See responses to Comments 104 through 106.**

Comment 108: Please accept this as a letter of support to extend the runway at Flagstaff Pulliam Airport. As a businessman here in Flagstaff, this extension would increase business and travel with more connecting flights, attracting larger airlines and aircraft into and out of Flagstaff.

Response: **Comment noted.**

Comment 109: A discussion of flight tracks or route structure at distances from airport, say 25-50 miles, that aircraft "routinely" utilize on approach and landing/departure (beyond immediate airport footprint) would be helpful in the analysis and understanding of existing community sound environment and options for traffic routing. Improving Exhibit 4A could work, or perhaps providing another graphic or descriptors in more detail would be beneficial.

Response: **Exhibit 4E depicts the area Victor Airways and assumed flight tracks approximately 25 to 30 miles from the Flagstaff Pulliam Airport.**

Comment 110: It is not clear how the estimates of aircraft operations in this new version compare to the last Master Plan estimates. The predicted numbers seem "high," based on current conditions and world events, especially regarding current oil prices and recent trends in air travel and airline route restructuring and solvency. Looking at past estimates for Pulliam Airport may help make current estimates more accurate and defensible.

Response: **Previous forecasts of both passenger enplanements and operations were included in the Master Plan for comparison. These included the forecasts from the last master plan in 1991. Those forecasts were actually higher than the current Master Plan forecasts. For example, the 1991 Master Plan forecast 144,500 enplanements by 2010, compared to 82,000 for 2010 in the 2005 Master Plan.**

The 2005 Master Plan does take into account expected long term growth in oil prices as well as world events since 9-11. In fact "airline route restructuring and solvency" is one of the reasons behind the potential for Flagstaff Pulliam Airport. The regional airlines, such as Mesa and SkyWest, have taken advantage of the problems facing the major airlines and expanded their route systems, primarily through the use of regional jets. The major airlines now, more than ever, rely on the regional airlines to serve thin routes such as Flagstaff.

It is this potential for regional jet service that improves the potential for growth in airline passengers at Flagstaff. An air service study prepared for Flagstaff indicated the airport is currently capturing just 26 percent of the local air travelers. The introduction of regional jet service into other markets experiencing similar capture rates has resulted in market increases in the market share of passengers. The forecasts are based upon the airport gradually growing its capture rate to 50 percent by the long term (approximately 20 years).

Comment 111: It is unclear why the "No Action" alternative is modified to include "anticipated changes" to the current operations arising from Pulliam Airport operation. The EA reads as if it is to assess future growth expectations. By doing this the EA does not address or assess the true No Action, or "existing conditions," alternative. Further, the EA does not provide a true analysis of existing commercial passenger transport noise emissions or daily flight operations outside of the airport footprint.

Response: **See responses to Comments 18, 85, and 100. The true No Action alternative depicts what types of operations could occur should the runway extension not be undertaken. To not include increases in operations at the airport under the No Action alternative would be negligent, as aircraft operations across the western United States, including Arizona, are anticipated to grow as the population grows.**

Comment 112: To be consistent with the requirements of the National Environmental Policy Act (NEPA) regarding analysis of a "No Action" alternative, we think it is inappropriate to add future actions not yet occurring to the *No Action* alternative. These "expected" changes would be more appropriately discussed in the "Cumulative Impacts" section, or as another alternative, rather than by adding these actions to the "existing" conditions alternative.

Response: **See responses to Comments 17 and 111. The "No Action" alternative the commentor describes is actually the existing condition. The existing condition is defined as the number of aircraft operations at the airport in 2003. The future conditions, both No Action and Proposed Action, include an anticipated increase in aircraft operations at the airport. Some of the future operations may vary if they are specifically dependent upon the proposed action being implemented.**

Comment 113: We suggest it would be more appropriate to add another alternative to accomplish the analysis of small changes to a portion of the existing operations, based on your forecasts of future growth and fleet change. This new alternative would discuss the differences between the existing operations (*No Action*), with approval of the runway extension, along with the slight changes proposed to airport operations as discussed under the revised Master Plan. This new alternative can use the current information already in the Draft EA that is used to characterize much of the "No Action" scenario. A clear analysis of existing conditions, plus analysis of new Master Plan developments and aircraft daily operations is necessary to be able to differentiate the true "existing" operating conditions from those proposed under the revised Master Plan. Impacts would be different amongst the three alternatives, especially to the local community. As the Council on Environmental Quality pointed out in question 3 of the 1981 "Forty Most Asked Questions on CEQ NEPA Regulations," "in these cases, "no action" is "no change" for current management direction or level of management intensity...This analysis provides a benchmark, enabling decision makers to compare the magnitude of effects of the action alternatives."

Response: **See responses to Comments 17 and 18.**

Comment 114: A possible mitigation for FAA to consider for the NPS areas would be to route aircraft to avoid the parks entirely. Perhaps aircraft could leave Flagstaff and avoid Sunset Crater Volcano and Wupatki National Monuments and then once north of Wupatki, follow the Highway 89 corridor. This would help mask the aircraft noise produced and help to diminish aircraft noise in the more remote portions of the Navajo Nation and GCNP.

Response: **As seen on Exhibit 4E, there are no established Victor Airways from Flagstaff Pulliam Airport that fly over Sunset Crater Volcano or Wupatki National Monuments. Aircraft which fly over these two monuments are primarily utilizing visual flight rules (VFR). Efforts are being made through the airport's recently completed 14 CFR Part 150 Study to make pilots aware of the presence of these national monuments. The airport does not have the ability to route aircraft away from the monuments, but efforts will be made to make pilots aware of their location.**

Comment 115: Pg. 4-12, Section 4.15: The opening sentence, as written, is misleading. The purpose of the extension of the runway, as described in the proposed action, is to maintain obstruction clearances for the existing instrument landing system and to meet the needs of existing and anticipated future users, larger and heavier commercial and business aircraft. To state that the longer runway is to "...gain altitude before leaving airport property ..." in support of less noise is somewhat misleading. The altitude that a plane flies at when arriving or departing this new runway will not be much different than the patterns used today. So, sound propagation will not change, noticeably, just because of a longer runway. What will change the sound environment will be the greater number of aircraft operations, the change in types of aircraft used, and the increased frequency and extended duration of aircraft operations from Pulliam Airport as a result of the runway extension.

Response: **The purpose of the opening sentence of this section is not to re-define the proposed action but to provide a summary analysis of the Proposed Action versus No Action alternatives. As depicted on Exhibits 4C and 4D, the presence of the runway extension does, in fact, reduce the noise impacts to the southwest of the airport. The altitude of aircraft departing the runway to the southwest will be higher as they will begin their takeoff 1,801 feet farther north. The fleet mixes modeled for the Proposed Action and No Action alternatives are essentially the same except for the changes in the commercial aircraft fleet mix.**

Comment 116: The statement made in Section 4.1.6, "No mitigation measures are required" needs to be reconsidered. How can the proposed action, in support of the Master Plan for Pulliam Airport, **not** affect the sound environment locally and maybe even regionally (cumulatively)?

Response: **See response to Comment 100. Also, keep in mind that the noise impacts were deemed to be "less-than-significant" which recognizes that noise impacts do exist around the airport. A "no impact" conclusion was not reached for the noise analysis.**

Comment 117: (Pg. 4-3): INM 6.1 is used for the aircraft noise analysis in this document, and includes Grand Canyon National Park (GCNP). The 2003 Aircraft Noise Model Validation Study produced by Harris Miller Miller & Hanson Inc. (HMMH Report # 295860.29, January 2003) for the National Park Service and FAA, showed that early INM versions (similar to INM 6.1) were consistently accurate when computing the Hourly Equivalent sound level (L_{eq}). However, INM was also found to **over-predict** noise impacts when aircraft noise is close (within 0-6 miles) and shielding is present (visible angle is small). The INM model also tends to **under-predict** when little shielding is present, at these same distances. Given this information, it is unclear at what distance and terrain shielding the EA used in the model to produce the results presented in Table 4D (p. 4-18) and Table 4E/4F (p. 4-20). This therefore casts doubt on the accuracy and acceptable "error" range of the model. This thought is supported by comparing the model results, which indicate that less noise impact is predicted, to the actual measured aircraft noise levels at GCNP (shown below in Table-1).

Response: **According to FAA Order 1050.1E, Section 14.2b, the use of the most recent version of the Integrated Noise Model (INM) is required for noise analyses when preparing NEPA documents. INM Version 6.1 is the latest version publicly available of this model and was used in this analysis. To that end, USGS terrain elevation data was imported into the Integrated Noise Model to more accurately assess noise impacts. Audibility and advanced terrain effects (i.e., shielding), which are the subject of the HMMH research report cited, are not available in Version 6.1. Future ability to consider advanced terrain effects, like any modeling enhancement, should offer incremental improvements, especially in variable terrain like the Grand Canyon.**

Comment 118: Pg. 4-7: What times of the day are used in calculating operations in the INM model? If the time of day is important for input into the INM model as described on page 4-7, and the control tower is closed (summer) from 9:00 p.m. to 6:00 a.m., actual data from flight plans would only be applicable to daylight hours? During the most noise sensitive period from 10:00 p.m. to 7:00 a.m., airport staff is there only two hours. Why hasn't the airport provided better documentation and sound information for the most sensitive hours? What are the number and aircraft type of operations used for the INM model run, for daytime and nighttime DNL calculations?

Response: **Operations by time-of-day were developed from interviews of airport staff, airport traffic control staff, fixed base operators, local users, and commercial flight schedules. A detailed table outlining the aircraft**

operations by type and time-of-day on each flight track has been included in Appendix K.

Comment 119: INM Output, pg.4-8: Where are the INM Modeling input/output data and files that predict the Annual Average Noise Contours? Why are the results limited to just the 65 DNL or greater levels at the airport property. To assume that off-site noise is not an impact to consider, and to not supply data on the existing sound environment in the local community, makes the analysis incomplete.

Response: **See response to Comment 100. The INM modeling input and output files are contained within the Amended Draft EA.**

Comment 120: Pg. 4-16, end of top paragraph: Some National Parks are open to the public 24 hours a day. While many of the local parks such as Walnut Canyon National Monument, Montezuma Castle and Tuzigoot National Monuments are closed at night, many parks (including GCNP) allow camping or lodging and actually encourage nighttime activity and use through interpretive talks, walks, or group presentations and activities.

Response: **Comment noted. We will add text to the discussion regarding the National Park unit operating hours.**

Comment 121: Pg. 4-16, Operations: The EA states "The (one) airline currently providing scheduled service ...intends to change operations to an all-regional jet fleet in the near future". For the preferred alternative, "Current commercial service is provided only to one destination, Phoenix, AZ.". However, "20 Scheduled" operations in and out of Pulliam Airport is used for this analysis scenario, for assessing impacts to GCNP. Four to six flights per day is typical, however "eight flights per day, in a non-hub location like Flagstaff," will be used to model potential impacts to GCNP. This represents eight additional flights to Salt Lake City, Utah (SLC) from Flagstaff, when currently there are none.

Response: **This statement is correct. Within the analysis, the "worst case" scenario was modeled. As stated within this section of the EA, in a non-hub market like Flagstaff, the maximum flights to a specific destination would be eight; therefore, to present a true "worst case" scenario, eight flights were modeled to Salt Lake City. Salt Lake City is the only existing hub that <u>could</u> require overflight of the GCNP from Flagstaff. Other hubs such as Denver or Los Angeles would not typically result in overflight of the GCNP.**

Comment 122: An additional six flights per day from Phoenix to SLC will also be included in the analysis. So, that is a total of 14 flights from southern Arizona over GCNP in the proposed alternative. Why were 20 flights over GCNP used in the assessment?

Response: **The "additional six flights" noted within this comment are flights from Flagstaff to Phoenix, not Phoenix to Salt Lake City. The text within the EA was revised to make the modeling efforts more clear.**

Comment 123: Continuing with the "No Action," it introduces 5 daily flights to SLC, when currently there are none (see comment 4 above). This is a new alternative, not a description of "existing conditions."

Response: **The No Action alternative is not intended to mirror the existing condition. It is intended to provide the anticipated condition should the proposed action alternative not be implemented. Operations at the airport, and nationwide, are expected to increase with time as the population increases.**

Comment 124: 4.2.2.1, 2nd paragraph, pg. 4-17: What is the impact from nearly 700 flights a day over Tier one parks? What are impacts from current FAA count of 1,350 daily flights over Tier Two Park GCNP?

Response: **The existing impacts over the Tier One parks are described within Table 4D of the EA. The existing impacts over GCNP are described within Table 3 in Appendix L.**

Comment 125: Table 4D: Change Walnut Creek National Monument to Walnut **Canyon** National Monument and Sunset Crater National Monument to Sunset Crater **Volcano** National Monument.

Response: **Comment noted.**

Comment 126: Exhibit 4G Tier Two Supplemental Noise analysis Grid Point Locations. There are obviously problems with the Walnut Canyon National Monument boundary as depicted on this map. NPS will contact David Fitz with Coffman Associates, Airport Consultants to work on correcting problems.

Response: **Comment noted.**

Comment 127: We feel that there is insufficient information on Tier Two modeling efforts and results to understand and support the conclusions of Tier 2 sound analysis as presented. What "Time Above" hours (12 or 24) were used in Table 4E; altitude of flight track used for analysis; type of aircraft and route or track used in the analysis; specifically, what are the basic assumptions and inputs used in the Tier Two analysis relative to GCNP?

Response: **The 24-hour Time Above levels were used in the Tier Two analysis on Table 4E. Beech 1900 aircraft were modeled at a cruising altitude between 10,000 to 15,000 feet mean sea level (MSL) and regional jets were modeled at a cruising altitude between 20,000 to 25,000 feet MSL. The basic modeling assumptions regarding the GCNP are described within Appendix L.**

Comment 128: 4.2.2.2, pg. 4-19: Opening paragraph states that "Volpe Acoustics Lab… using comprehensive operations data for GCNP and a dedicated version of INM 6.1 developed for the FAA/NPS interagency analysis of the GCNP under the National Air Tour Management Act of 2000 *(ATMP)*. Its application is appropriate for this analysis for purposes of ensuring consistency with the interagency analysis of GCNP."

GCNP does not accept or agree with this statement for the following reasons:

- GCNP is exempted from the regulations of the ATMP Act of 2000;
- GCNP is mandated by the National Parks Overflights Act (1987) to substantially restore natural quiet to the park. A key sound metric GCNP is using to determine if natural quiet is restored is **audibility**, similar to the FAA term **detectability.** INM 6.1 version cannot determine audibility as it is currently configured;
- Lastly, the FAA/NPS interagency agreement mentioned in this paragraph **is not for use of INM version 6.1**, but rather for using an updated version INM 6.2.

Response: **The language regarding the ATMP Act of 2000 has been deleted. The development of INM Version 6.2 was not complete at the time of this study due to scientific uncertainties and the difficulty in incorporating advanced time-based metrics, such as audibility, in a non-simulation mode. A dedicated version of INM 6.1 was used for the EA analysis, representing the latest and best available technology.**

Comment 129: Pg. 4-19, last sentence: The EA states that "…not only the aircraft flying into and out of Flagstaff Pulliam Airport were analyzed, <u>but all existing air traffic over GCNP."</u> In review of Table 4E, next page (4-20), L_{max} values range from a low of 40 dBA to a high of 50.4 dBA. Also in table 4E, the *Proposed Action* shows the model predicting aircraft noise to not exceed the 26 dB natural ambient by more than 100 minutes (total from all aircraft). However, table 4E does not indicate if this is a 12 hour or 24 hour estimate.

Response: **See response to Comment 127.**

Comment 130: After years of collected aircraft noise and sound data at Grand Canyon National Park, the values presented for current Total Time Above Natural Ambient (TA), given in Table 4E, seem to be underestimated or conservative, possibly due to basing these predictions on a 24-hour day, annual average; especially if one reviews recent data collected by the FAA (2003) and used in the Federal Interagency Committee on Aircraft Noise (FICAN) Study released in March of this year (2005), and the data collected by HMMH in 1999 as used in the Model Validation Study.

Response: **See responses to Comments 6 and 33.**

Comment 131: Given in Table-1 below are GCNP measured L_{max} and Percent Time Audible values for the Bright Angel and Desert View Flight Free Zones, corresponding to the area covered by listed Grid Points in Exhibit 4J. The GCNP values represent sound measurements and field observation logs published from just seven of 32 measured sites. This small sample corresponds to several grid points off Exhibit 4J, all thought to be within the Bright Angel or Desert View Flight Free Zone, at the eastern end of the park. Table-1 below compares **12-hour day** results from the model to HMMH collected aircraft noise data:

Table 1 – Comparison of Draft EA-Table 4E for the Bright Angel and Desert View Flight Free Zones, GCNP

4J-GRID #	HMMH Report Site #	L_{max} (12) Existing	L_{max} (12) No Action	L_{max} (12) Proposed	L_{max} (12) HMMH Study Results** In dB(A)	**Time Above (TA) or Percent Time Audible****	Table 4E TA minutes	**Total Minutes of Aircraft Noise**
22	16.0**	Missing	?	Missing	27-51	49-94	?	353-677
23	16.0	47.7	47.7	47.7	27-51	49-94	100	353-677
30	2.1	49.6	49.6	49.6	41-64	5-47	100	36-338
31	2.2	46.8	46.8	46.8	32-47	8-16	100	58-115
32	2.2	47.0	47.0	47.0	32-47	8-16	84.8	58-115
36	18.0	Missing	?	?	38-72	0-35	?	0-252
37	18.0	48.8	48.8	48.8	38-72	0-35	100	0-252
43	17.0+	47.6	47.6	47.6	34-60	22-99	100	158-713
44	12.0+	44.9	44.9	44.9	31-63	1-51	10.7	7-367

** HMMH Report 290940.18, Acoustic Data Collected at Grand Canyon, Haleakala and Hawaii Volcanoes National Parks;
+ These two sample locations are within the Desert View Flight Free Zone.

Table-1 above shows the INM 6.1 model's inability to accurately predict audibility. INM 6.1 L_{max} values are in an acceptable range in the above comparison, however overall predictive results from the model do not correspond well with field-measured results.

Response: **Audibility noise metrics are not available in INM Version 6.1 and were not prepared as part of this analysis. Also see response to Comment 127.**

Comment 132: Table 4E also reflects INM 6.1 predictions for the Bright Angle Flight Free Zone and the Desert View Flight Free Zone, which are clearly not aircraft noise free as the zones were intended. It is GCNP view that the addition of 14 to 20 additional flights from Pulliam Airport over the east end of the park would add about 40 to 60 minutes (2 to 3 minutes of audibility per flight) or more of additional aircraft noise per day. Given the current excess of aircraft operations and associated aircraft noise in this area of the Park, to propose adding to an already noisy overflight environment does not appear to aid the NPS and FAA efforts underway to comply with 1987 National Parks Overflights Act.

Response: **Comment noted. Refer to Volpe analysis contained within Appendix L.**

Comment 133: This is to let you know that the Lowell Observatory people are solidly in favor of any step that will improve the reliability and variety of air service to Flagstaff.

Response: **Comment noted.**

Comment 134: We have many astronomers who routinely travel everywhere, but a great part of the time, we drive to PHX to shart our journeys around North America, to Europe and elsewhere. On the 11th of next monty, for expamle, I will go to Singapore for a three-day meeting, and return via Calgary. But it all starts with driving down I-17 for PHX. In part, we are reluctant to use the existing FLG-PHX service because it is so unreliable, and expensive (unless you are going on via AmericaWest.)

Response: **Comment noted.**

Comment 135: I speak in opposition to the proposal to extend the current runway at Pulliam Field and the Environmental Assessment presented by Coffman Associates.

Response: **Comment noted.**

Comment 136: The information detailed within the EA is filled with inaccuracies, and forecasts contained within are optimistically erroneous by a minimum factor of 22%.

Response: **Refer to Comments 141 and 142 below.**

Comment 137: First, the current runway length of 6,999 ft. does not significantly affect the range of business jets due to the fact that very few, if any, can fly 2,000 nm and have sufficient IFR reserves in a "no wind" condition. The majority of general aviation aircraft do not need 5,000 ft. let alone 6,999 ft. to take off at 7,000 ft. elevation.

Response: **The "majority of general aviation aircraft" consists of small propeller aircraft weighing less than 12,500 pounds. Simply designing for the majority does not create an adequate transportation facility. If designed solely for the majority of vehicles using them (personal automobiles), highways would not be able to support trucks or buses. These are vehicles critical to the economic support of a community and nation. The same is true with an airport. While comprising less than 10 percent of the total operations, business jets are used by business and industry to transport materials and personnel.**

Many business jets are currently severely limited in their flight range from the Flagstaff Pulliam Airport. According to the FAA runway length design program (see Table 1E of the EA), the current runway length is not adequate for even 75 percent of the business jet aircraft at 60 percent useful load. It is recognized that even with the extension, not all business

jets will be able to operate fully loaded. It was determined that 8,800 feet would provide the most optimal use capability.

Comment 138: Secondly, Mesa Airlines has no plan to bring CRJ's to Flagstaff. Skywest has stated that they would have to be paid by Delta Airlines or American Airlines to come to Flagstaff. Both airlines are trying to stay out of bankruptcy. I spoke to the CEO of Great Lakes Airlines and he expressed interest in picking up Flagstaff at some time in the future. Great Lakes Airlines currently flies only turbo props.

Response: **Mesa Airlines has not planned to bring CRJs to Flagstaff because the runway is not adequate to handle the aircraft. The fact remains that Mesa Airlines has been growing its regional jet fleet while reducing its turboprop fleet. In 2002, the airline had a total of 126 aircraft with 64 being regional jets and 62 turboprops. By 2005, Mesa's fleet had increased to 180 aircraft. The number of regional jets has more than doubled, but the number of turboprops has declined by 50 percent to 41.**

In addition, the airline's service agreement with America West Airlines expires in 2007. Even if renewed, the airline is expected to utilize regional jets wherever possible. If the current airline were replaced, it is expected that service would be limited to a commuter airline using 19-seat turboprop aircraft, unless the runway is extended.

SkyWest Airlines indicated in a letter of June 15, 2005, that while they have no immediate plans to add service to Flagstaff, their ability to add such service in the future would be enhanced by a longer runway.

A letter dated June 21, 2005, from the CEO of Great Lakes Airlines indicated that they do have interest in serving Flagstaff, however, the letter stated, "after reviewing the operation performance of our Brasilia EMB 120-30 seat aircraft, your current runway length and altitude of the airport present limitations that would render it unfeasible both financially and operationally to provide service today."

Thus, the current runway length is even inadequate for the 30-seat turboprop of a potential additional or replacement aircraft. This further supports the likelihood the airport could end up with 19-passenger turboprop service if steps to improve the runway length available are not taken.

Comment 139: Further, the sales manager of Bombardier who manufactures CRJ 200's and 700's as well as Dash 8's emailed me the specifications for the CRJs. He also stated that the Dash 8 has better performance and fuel economy at our altitude. The current flight availability using Dash 8's gives residents the choice of four to five flights a day to connect with other flights at Phoenix Sky Harbor.

Response: **As it is capable of operating from the airport today, the Dash 8 does provide better performance under current operating conditions. Still, the aircraft sometimes have to off-load passengers due to the runway's length limitations. The fact remains that Mesa Airlines has just six of these aircraft still in service from its Phoenix hub, and the total number of turboprops in its fleet continues to decline.**

Comment 140: My primary concern is that the City of Flagstaff does not have justification at this time to extend the runway. The extension would be 1,800 ft closer to current developed housing communities. Residents living off the north end of the runway currently "enjoy" a noise level of approximately 88 db from business jet traffic. The runway extension would increase the noise level six times to approximately 94 db for the same business jet traffic. Quite frankly I believe the current jet noise is unacceptable and the idea that the City wants to increase it six times is unwarranted and unnecessary.

Response: **FAA Order 1050.1E, Section 14.3 states: "A significant noise impact would occur if analysis shows that the proposed action will cause noise sensitive areas to experience an increase in noise of DNL 1.5 dB or more at or above DNL 65 dB noise exposure when compared to the no action alternative for the same time frame." The 65 DNL noise exposure contour does not extend into the residential area northeast of the airport. A subsequent grid point analysis confirms there is not a significant noise impact with the Proposed Action northeast of the airport (the grid point analysis for the 2006 No Action scenario for the residential area northeast of the airport is 55.1 DNL and the 2006 Proposed Action scenario is 59.2 DNL in the same location).**

Comment 141: Coffman Associates projects 57,851 enplanements for 2005 in the section "Forecast Enplanements" Page 1-9. Judging from the numbers provided to the Airport Commission through July, 2005, the actual number of enplanements will be approximately 44,000 which is 25% less than predicted by Coffman Associates.

Response: **The 2005 forecast referred to was based upon a recapture of market share, which is likely to occur only with the improved service provided by regional jets. Please note in the right column, that the market share of U.S. domestic enplanements was projected to begin to increase with regional jet service, as it has done at other airports that have experienced the introduction of regional jets. Since the service is still the same as when the forecasts were prepared, the market share has remained the same. In fact, the 44,000 enplanements estimated by the commentor would be around 0.0065%, the same percentage as in 2002.**

Comment 142: Coffman Associates projects 54,000 prox forecast operations (landings/takeoffs) for 2005 in the section "Forecast Operations" Page 1-11. Again, numbers provided to the Airport Commission through July, 2005, is 44,000 which is 22% less than predicted by Coffman Associates. The

operations numbers have been decreasing for the lat four years with a 10% drop in 2005.

Response: **The EA does not include operation forecasts for 2005, but it does appear that operations in 2005 will be down from previous years. The total number of operations, however, does not affect the need for runway length. As indicated in the response to Comment 137, the majority of aircraft do not need the runway length, but those who do, are primarily related to business and industry activity in the community.**

A comparison of operations was made between the last twelve months ending with July 2005 and calendar year 2003 shown on Table 1C on page 1-11 of the EA. While total operations are down 12 percent from 2003, the greatest difference is in local operations, which are down over 22 percent. Local operations are comprised almost entirely of small propeller aircraft.

Comment 143: Coffman Associates states in "General Aviation Runway Length Requirements" Page 1-16 that W.L. Gore & Associates' Westwind 1124 has a range of 1,121 nm and the distance to their headquarters in Delaware is 1,990 nm. The difference is 131 nm. IFR minimum reserves are 45 min. which equates to 300 nm. This would equate to coming up short by 159 nm. No matter how long the runway, the fact remains that they cannot fly non-stop without a fairly strong tailwind. Very few small business jets if any have a 2,000 nm range. This would preclude the argument offered by the City to extend the runway to encourage more small business jet traffic.

Response: **Beginning on page 1-16, the EA states the following with regard to the range of the Westwind, "The Westwind has a maximum range of 2,440 miles with a full load of fuel." This includes allowing for reserves. While there may still be times when the Westwind will not be able to travel non-stop to its regular east coast destination due to head winds or other extreme conditions, the fact remains the number of times this will occur will be reduced significantly. Similarly, other business jets will have a greater range with an 8,800-foot runway than they currently have.**

Comment 144: The option offered in Chapter Two, Alternative G, Construct New Airport, was never given sufficient discussion and consideration when presented to the Airport Commission. Furthermore, Coffman Associates did not provide any in depth information regarding this alternative. This alternative could well be the best solution because it solves the following issues currently at Pulliam:

Mountains nearby
ILS that does not work in bad weather
Snow
Density Altitude
Noise
Security
Possible runway extension in the future

Response: **Comment noted; however, the conclusions reached within the document still stand. Improving the existing airport will result in fewer environmental impacts than the development of an entirely new facility.**

Comment 145: One viable option would be to obtain forest service land near Twin Arrows, 17 miles east of Pulliam along I-40. Current residents on the eastside of Flagstaff would have the same travel time to this location as they do now, and those residents on the Westside of Flagstaff would have a 5-10 min. longer travel time.

There are no mountains nearby which would require only a standard ILS (instrument landing system) instead of the special one currently used at Pulliam that does not work in bad weather. I have personally flown into Flagstaff during snow storms and the ILS was not working.

The amount of snow would greatly decrease due to a field elevation of approximately 6,000 ft. The lower altitude is beneficial to improved aircraft performance. There would be no limitations on runway length which could attract regional jet traffic.

This location would be well east of all the noise sensitive areas, parks, wilderness areas, and the City of Flagstaff. The location is on the edge of the Coconino National Forest with few residences. The environmental impacts would be minimal because of property being comprised of arid grassland and a few trees.

From a security standpoint, the commercial operations could be built on one side of the airport and the general aviation on the opposite side.

Response: **Relocating the airport to the east near Twin Arrows is an alternative that has been considered in the past. From an environmental perspective, a number of issues arise when one begins researching the relocation of the airport to this area. These issues are summarized as follows:**

- **The property would likely be on U.S. Forest Service land which would require the City of Flagstaff to undertake a land exchange with the U.S. Forest Service, typically a very time-consuming process. Typical land exchanges can take up to five years to complete. This is outside the time frame of the commercial service transition to regional jets, thereby jeopardizing the current level of commercial airline service at the airport.**

- **A review of the area's hydraulic mapping indicates that it would be very difficult to avoid impacts to wetlands or waters of the U.S. during the development of a new airport in this area. The area contains many washes and intermittent or ephemeral streams.**

- **Additional impacts would also likely be realized to cultural and archaeological resources. Much of the land in this area is still in its natural state which increases the likelihood of the presence of such resources. This likelihood is heightened even further due to the historical Native American activities which have occurred in these areas. Coordination would need to be undertaken with the State Historic Preservation Officer as well as any tribes with historical connections to the area.**

- **Nineteen species are listed as threatened or endangered by the U.S. Fish and Wildlife Service in Coconino County. Considering the undeveloped nature of the area in question, the potential for impacts to habitat supporting endangered or protected species would be high.**

- **Relocating the airport results in potential, <u>new</u> impacts to National Park Service units as well as state recreational areas.**

From a socioeconomic perspective, the increase in travel distance from the population center to the airport would need to be considered, as would the impacts associated with the relocation of businesses which currently utilize and/or operate out of the existing airport.

Finally, the timing of the development of the new airport would not meet the near-term needs of the business jets operating at the airport as well as the commercial service fleet mix transition.

Comment 146: From a cost standpoint, the Coffman Associates Master Plan projects spending $80 million on the current airport. Why not divert those funds to building a new airport? With a timeframe of seven years and an approximate cost of $125 million, this seems like the best solution for the long term.

Response: **See response to Comment 145.**

Comment 147: Under Aircraft Noise Analysis Page 4-5, the most noticeable problem I see is with military aircraft. A B212 is a small helicopter compared to larger and noisier Army/Marine helicopters that currently land/takeoff from Pulliam. I do not know what C-12 aircraft are, but there are numerous C-130's. L-39's, and occasional C-135 and other military aircraft that land/takeoff at Pulliam. The noise footprint provided by Coffman Associates does not include the actual military aircraft that is landing at Pulliam.

Response: **The UH-1 helicopter (B212 designator) and C-12 turboprop generally represent the wide variety of military aircraft that occasionally stop at the airport based upon interviews with the airport staff, fixed base operator, and airport control tower staff. The C-12 aircraft is a standard twin turboprop trainer used by the military.**

Comment 148: Finally, I believe Coffman Associates compiled a very poor NEPA. The data contained within appears to be very inflated and biased. They totally ignored the new airport option which I believe is the BEST LONG TERM OPTION.

Response: **Comment noted.**

Comment 149: I represent a group of Forest Highlands homeowners. We support the extension of the Pulliam Airport runway.

Response: **Comment noted.**

Comment 150: As you know, the airport flight path is directly over Forest Highlands. We simply ask for you to take Forest Higlands into consideration when you final your 150 and 161 Study and Analyses. Specifically, we ask for you to consider the following potential noise abatement measures to benefit the Forest Highlands community:

1. Runway Use Programs
2. Flight Track Management
3. Approach Procedures
4. Departure Procedures
5. Navigation Technology
6. Construction or Modification of Airport Facilities
7. Airport Use Restrictions
8. Airport Regulations

Response: **The 14 CFR Part 150 Study has been completed and was approved by the City of Flagstaff on September 6, 2005. The range of alternatives listed by the commentor was assessed in the Part 150 study. Noise-based restrictions were not found to have merit at Flagstaff Pulliam Airport; therefore, a subsequent Part 161 analysis was not recommended.**

COMMENTS RECEIVED IN WRITING AT THE PUBLIC HEARING

Comment 151: On behalf of members of the Flagstaff Forty listed below, we are writing to express our support for the proposed extension of the lone runway at Flagstaff's Pulliam Airport.

Response: **Comment noted.**

Comment 152: Reliable and more frequent air service out of Pulliam Airport is crucially important to the economic development of Northern Arizona.

Response: **Comment noted.**

Comment 153: We urge that the Environmental Assessment (EA) prepared by the City of Flagstaff and its consultants be accepted, and that a Finding of No Significant Impact be quickly issued.

Response: **Comment noted.**

Comment 154: We are aware of concerns about the conceivable future increase in aircraft noise over Grand Canyon as a result of expanded air service out of Flagstaff Airport. If and when such actual northbound service is proposed, we would support establishment by the FAA of a new air corridor skirting the east end of the Canyon.

Response: **See response to Comment 12.**

Comment 155: The runway extension would be an excellent economic generator for Flagstaff and Northern Arizona. Well-planned and managed growth will maintain the excellent quality of life that Northern Arizonans have come to appreciate.

Response: **Comment noted.**

COMMENTS CONTAINED WITHIN THE PUBLIC HEARING TRANSCRIPT

Comment 156: Our association consists of every hotel here in Flagstaff, and I am here to offer support of the proposed expansion of the runway at Pulliam Airport.

Response: **Comment noted.**

Comment 157: It is our significant belief that this proposed expansion will not only assist in the expansion of the airport, but in the long term have a significant impact on the economy here in Flagstaff, and ultimately, our industry.

Response: **Comment noted.**

FLAGSTAFF
PULLIAM AIRPORT

Appendix K

INTEGRATED NOISE MODEL INPUT FILES

Appendix K
INM Input Assumptions

This appendix provides a detailed table depicting aircraft operations, runway use, flight track assignment, and day/nighttime operation split by aircraft type used to develop the 2006 No Action and Proposed Action noise exposure contours for Flagstaff Pulliam Airport.

2006 NO ACTION CASE FLIGHT OPERATIONS

Acft	Op	Profile	Stg	Rwy	Track	Sub	Group	Day	Evening	Night
737300	APP	STANDARD	1	03	A	0	COM	0.0015	0.0000	0.0000
737300	APP	STANDARD	1	03	A	1	COM	0.0009	0.0000	0.0000
737300	APP	STANDARD	1	03	A	2	COM	0.0009	0.0000	0.0000
737300	APP	STANDARD	1	03	A	3	COM	0.0002	0.0000	0.0000
737300	APP	STANDARD	1	03	A	4	COM	0.0002	0.0000	0.0000
737300	APP	STANDARD	1	03	B	0	COM	0.0044	0.0000	0.0000
737300	APP	STANDARD	1	03	B	1	COM	0.0027	0.0000	0.0000
737300	APP	STANDARD	1	03	B	2	COM	0.0027	0.0000	0.0000
737300	APP	STANDARD	1	03	B	3	COM	0.0007	0.0000	0.0000
737300	APP	STANDARD	1	03	B	4	COM	0.0007	0.0000	0.0000
737300	APP	STANDARD	1	03	C	0	COM	0.0015	0.0000	0.0000
737300	APP	STANDARD	1	03	C	1	COM	0.0009	0.0000	0.0000
737300	APP	STANDARD	1	03	C	2	COM	0.0009	0.0000	0.0000
737300	APP	STANDARD	1	03	C	3	COM	0.0002	0.0000	0.0000
737300	APP	STANDARD	1	03	C	4	COM	0.0002	0.0000	0.0000
737300	APP	STANDARD	1	21	A	0	COM	0.0069	0.0000	0.0000
737300	APP	STANDARD	1	21	A	1	COM	0.0052	0.0000	0.0000
737300	APP	STANDARD	1	21	A	2	COM	0.0052	0.0000	0.0000
737300	APP	STANDARD	1	21	A	3	COM	0.0021	0.0000	0.0000
737300	APP	STANDARD	1	21	A	4	COM	0.0021	0.0000	0.0000
737300	APP	STANDARD	1	21	A	5	COM	0.0003	0.0000	0.0000
737300	APP	STANDARD	1	21	A	6	COM	0.0003	0.0000	0.0000
737300	APP	STANDARD	1	21	B	0	COM	0.0060	0.0000	0.0000
737300	APP	STANDARD	1	21	B	1	COM	0.0037	0.0000	0.0000
737300	APP	STANDARD	1	21	B	2	COM	0.0037	0.0000	0.0000
737300	APP	STANDARD	1	21	B	3	COM	0.0010	0.0000	0.0000
737300	APP	STANDARD	1	21	B	4	COM	0.0010	0.0000	0.0000
737300	APP	STANDARD	1	21	C	0	COM	0.0009	0.0000	0.0000
737300	APP	STANDARD	1	21	C	1	COM	0.0005	0.0000	0.0000
737300	APP	STANDARD	1	21	C	2	COM	0.0005	0.0000	0.0000
737300	APP	STANDARD	1	21	C	3	COM	0.0001	0.0000	0.0000
737300	APP	STANDARD	1	21	C	4	COM	0.0001	0.0000	0.0000
737300	APP	STANDARD	1	21	D	0	COM	0.0009	0.0000	0.0000
737300	APP	STANDARD	1	21	D	1	COM	0.0005	0.0000	0.0000
737300	APP	STANDARD	1	21	D	2	COM	0.0005	0.0000	0.0000
737300	APP	STANDARD	1	21	D	3	COM	0.0001	0.0000	0.0000
737300	APP	STANDARD	1	21	D	4	COM	0.0001	0.0000	0.0000
737300	APP	STANDARD	1	21	E	0	COM	0.0009	0.0000	0.0000
737300	APP	STANDARD	1	21	E	1	COM	0.0005	0.0000	0.0000
737300	APP	STANDARD	1	21	E	2	COM	0.0005	0.0000	0.0000
737300	APP	STANDARD	1	21	E	3	COM	0.0001	0.0000	0.0000
737300	APP	STANDARD	1	21	E	4	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	03	A	0	COM	0.0018	0.0000	0.0000
737300	DEP	STANDARD	1	03	A	1	COM	0.0013	0.0000	0.0000
737300	DEP	STANDARD	1	03	A	2	COM	0.0013	0.0000	0.0000
737300	DEP	STANDARD	1	03	A	3	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	03	A	4	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	03	A	5	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	03	A	6	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	03	B	0	COM	0.0035	0.0000	0.0000
737300	DEP	STANDARD	1	03	B	1	COM	0.0026	0.0000	0.0000
737300	DEP	STANDARD	1	03	B	2	COM	0.0026	0.0000	0.0000
737300	DEP	STANDARD	1	03	B	3	COM	0.0011	0.0000	0.0000
737300	DEP	STANDARD	1	03	B	4	COM	0.0011	0.0000	0.0000

737300	DEP	STANDARD	1	03	B	5	COM	0.0002	0.0000	0.0000
737300	DEP	STANDARD	1	03	B	6	COM	0.0002	0.0000	0.0000
737300	DEP	STANDARD	1	03	C	0	COM	0.0007	0.0000	0.0000
737300	DEP	STANDARD	1	03	C	1	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	03	C	2	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	03	C	3	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	03	C	4	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	A	0	COM	0.0009	0.0000	0.0000
737300	DEP	STANDARD	1	21	A	1	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	21	A	2	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	21	A	3	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	A	4	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	B	0	COM	0.0016	0.0000	0.0000
737300	DEP	STANDARD	1	21	B	1	COM	0.0013	0.0000	0.0000
737300	DEP	STANDARD	1	21	B	2	COM	0.0013	0.0000	0.0000
737300	DEP	STANDARD	1	21	B	3	COM	0.0006	0.0000	0.0000
737300	DEP	STANDARD	1	21	B	4	COM	0.0010	0.0000	0.0000
737300	DEP	STANDARD	1	21	B	5	COM	0.0002	0.0000	0.0000
737300	DEP	STANDARD	1	21	B	6	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	21	C	0	COM	0.0007	0.0000	0.0000
737300	DEP	STANDARD	1	21	C	1	COM	0.0004	0.0000	0.0000
737300	DEP	STANDARD	1	21	C	2	COM	0.0004	0.0000	0.0000
737300	DEP	STANDARD	1	21	C	3	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	C	4	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	D	0	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	21	D	1	COM	0.0003	0.0000	0.0000
737300	DEP	STANDARD	1	21	D	2	COM	0.0003	0.0000	0.0000
737300	DEP	STANDARD	1	21	D	3	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	D	4	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	E	0	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	21	E	1	COM	0.0003	0.0000	0.0000
737300	DEP	STANDARD	1	21	E	2	COM	0.0003	0.0000	0.0000
737300	DEP	STANDARD	1	21	E	3	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	E	4	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	F	0	COM	0.0121	0.0000	0.0000
737300	DEP	STANDARD	1	21	F	1	COM	0.0074	0.0000	0.0000
737300	DEP	STANDARD	1	21	F	2	COM	0.0074	0.0000	0.0000
737300	DEP	STANDARD	1	21	F	3	COM	0.0020	0.0000	0.0000
737300	DEP	STANDARD	1	21	F	4	COM	0.0020	0.0000	0.0000
B206L	APP	USER	1	03	A	0	HEL	0.0402	0.0000	0.0026
B206L	APP	USER	1	03	A	1	HEL	0.0247	0.0000	0.0016
B206L	APP	USER	1	03	A	2	HEL	0.0247	0.0000	0.0016
B206L	APP	USER	1	03	A	3	HEL	0.0067	0.0000	0.0004
B206L	APP	USER	1	03	A	4	HEL	0.0067	0.0000	0.0004
B206L	APP	USER	1	03	B	0	HEL	0.1205	0.0000	0.0077
B206L	APP	USER	1	03	B	1	HEL	0.0742	0.0000	0.0047
B206L	APP	USER	1	03	B	2	HEL	0.0742	0.0000	0.0047
B206L	APP	USER	1	03	B	3	HEL	0.0201	0.0000	0.0013
B206L	APP	USER	1	03	B	4	HEL	0.0201	0.0000	0.0013
B206L	APP	USER	1	03	C	0	HEL	0.0402	0.0000	0.0026
B206L	APP	USER	1	03	C	1	HEL	0.0247	0.0000	0.0016
B206L	APP	USER	1	03	C	2	HEL	0.0247	0.0000	0.0016
B206L	APP	USER	1	03	C	3	HEL	0.0067	0.0000	0.0004
B206L	APP	USER	1	03	C	4	HEL	0.0067	0.0000	0.0004
B206L	APP	USER	1	21	A	0	HEL	0.0563	0.0000	0.0036
B206L	APP	USER	1	21	A	1	HEL	0.0422	0.0000	0.0027
B206L	APP	USER	1	21	A	2	HEL	0.0422	0.0000	0.0027

B206L	APP	USER	1	21	A	3	HEL	0.0169	0.0000	0.0011
B206L	APP	USER	1	21	A	4	HEL	0.0169	0.0000	0.0011
B206L	APP	USER	1	21	A	5	HEL	0.0028	0.0000	0.0002
B206L	APP	USER	1	21	A	6	HEL	0.0028	0.0000	0.0002
B206L	APP	USER	1	21	B	0	HEL	0.2812	0.0000	0.0179
B206L	APP	USER	1	21	B	1	HEL	0.1730	0.0000	0.0110
B206L	APP	USER	1	21	B	2	HEL	0.1730	0.0000	0.0110
B206L	APP	USER	1	21	B	3	HEL	0.0469	0.0000	0.0030
B206L	APP	USER	1	21	B	4	HEL	0.0469	0.0000	0.0030
B206L	APP	USER	1	21	C	0	HEL	0.0469	0.0000	0.0030
B206L	APP	USER	1	21	C	1	HEL	0.0288	0.0000	0.0018
B206L	APP	USER	1	21	C	2	HEL	0.0288	0.0000	0.0018
B206L	APP	USER	1	21	C	3	HEL	0.0078	0.0000	0.0005
B206L	APP	USER	1	21	C	4	HEL	0.0078	0.0000	0.0005
B206L	APP	USER	1	21	D	0	HEL	0.0469	0.0000	0.0030
B206L	APP	USER	1	21	D	1	HEL	0.0288	0.0000	0.0018
B206L	APP	USER	1	21	D	2	HEL	0.0288	0.0000	0.0018
B206L	APP	USER	1	21	D	3	HEL	0.0078	0.0000	0.0005
B206L	APP	USER	1	21	D	4	HEL	0.0078	0.0000	0.0005
B206L	APP	USER	1	21	E	0	HEL	0.0234	0.0000	0.0015
B206L	APP	USER	1	21	E	1	HEL	0.0144	0.0000	0.0009
B206L	APP	USER	1	21	E	2	HEL	0.0144	0.0000	0.0009
B206L	APP	USER	1	21	E	3	HEL	0.0039	0.0000	0.0002
B206L	APP	USER	1	21	E	4	HEL	0.0039	0.0000	0.0002
B206L	DEP	USER	1	03	A	0	HEL	0.0322	0.0000	0.0021
B206L	DEP	USER	1	03	A	1	HEL	0.0241	0.0000	0.0015
B206L	DEP	USER	1	03	A	2	HEL	0.0241	0.0000	0.0015
B206L	DEP	USER	1	03	A	3	HEL	0.0097	0.0000	0.0006
B206L	DEP	USER	1	03	A	4	HEL	0.0097	0.0000	0.0006
B206L	DEP	USER	1	03	A	5	HEL	0.0016	0.0000	0.0001
B206L	DEP	USER	1	03	A	6	HEL	0.0016	0.0000	0.0001
B206L	DEP	USER	1	03	B	0	HEL	0.0965	0.0000	0.0062
B206L	DEP	USER	1	03	B	1	HEL	0.0724	0.0000	0.0046
B206L	DEP	USER	1	03	B	2	HEL	0.0724	0.0000	0.0046
B206L	DEP	USER	1	03	B	3	HEL	0.0290	0.0000	0.0018
B206L	DEP	USER	1	03	B	4	HEL	0.0290	0.0000	0.0018
B206L	DEP	USER	1	03	B	5	HEL	0.0048	0.0000	0.0003
B206L	DEP	USER	1	03	B	6	HEL	0.0048	0.0000	0.0003
B206L	DEP	USER	1	03	C	0	HEL	0.0402	0.0000	0.0026
B206L	DEP	USER	1	03	C	1	HEL	0.0247	0.0000	0.0016
B206L	DEP	USER	1	03	C	2	HEL	0.0247	0.0000	0.0016
B206L	DEP	USER	1	03	C	3	HEL	0.0067	0.0000	0.0004
B206L	DEP	USER	1	03	C	4	HEL	0.0067	0.0000	0.0004
B206L	DEP	USER	1	21	A	0	HEL	0.0234	0.0000	0.0015
B206L	DEP	USER	1	21	A	1	HEL	0.0144	0.0000	0.0009
B206L	DEP	USER	1	21	A	2	HEL	0.0144	0.0000	0.0009
B206L	DEP	USER	1	21	A	3	HEL	0.0039	0.0000	0.0002
B206L	DEP	USER	1	21	A	4	HEL	0.0039	0.0000	0.0002
B206L	DEP	USER	1	21	B	0	HEL	0.1352	0.0000	0.0086
B206L	DEP	USER	1	21	B	1	HEL	0.1081	0.0000	0.0069
B206L	DEP	USER	1	21	B	2	HEL	0.1081	0.0000	0.0069
B206L	DEP	USER	1	21	B	3	HEL	0.0487	0.0000	0.0031
B206L	DEP	USER	1	21	B	4	HEL	0.0811	0.0000	0.0052
B206L	DEP	USER	1	21	B	5	HEL	0.0162	0.0000	0.0010
B206L	DEP	USER	1	21	B	6	HEL	0.0433	0.0000	0.0028
B206L	DEP	USER	1	21	C	0	HEL	0.1172	0.0000	0.0075
B206L	DEP	USER	1	21	C	1	HEL	0.0721	0.0000	0.0046

B206L	DEP	USER	1	21	C	2	HEL	0.0721	0.0000	0.0046
B206L	DEP	USER	1	21	C	3	HEL	0.0195	0.0000	0.0012
B206L	DEP	USER	1	21	C	4	HEL	0.0195	0.0000	0.0012
B206L	DEP	USER	1	21	D	0	HEL	0.0469	0.0000	0.0030
B206L	DEP	USER	1	21	D	1	HEL	0.0288	0.0000	0.0018
B206L	DEP	USER	1	21	D	2	HEL	0.0288	0.0000	0.0018
B206L	DEP	USER	1	21	D	3	HEL	0.0078	0.0000	0.0005
B206L	DEP	USER	1	21	D	4	HEL	0.0078	0.0000	0.0005
B206L	DEP	USER	1	21	E	0	HEL	0.0469	0.0000	0.0030
B206L	DEP	USER	1	21	E	1	HEL	0.0288	0.0000	0.0018
B206L	DEP	USER	1	21	E	2	HEL	0.0288	0.0000	0.0018
B206L	DEP	USER	1	21	E	3	HEL	0.0078	0.0000	0.0005
B206L	DEP	USER	1	21	E	4	HEL	0.0078	0.0000	0.0005
B206L	DEP	USER	1	21	F	0	HEL	0.0234	0.0000	0.0015
B206L	DEP	USER	1	21	F	1	HEL	0.0144	0.0000	0.0009
B206L	DEP	USER	1	21	F	2	HEL	0.0144	0.0000	0.0009
B206L	DEP	USER	1	21	F	3	HEL	0.0039	0.0000	0.0002
B206L	DEP	USER	1	21	F	4	HEL	0.0039	0.0000	0.0002
B206L	TGO	USER	1	03	A	0	HEL	0.0912	0.0000	0.0058
B206L	TGO	USER	1	03	A	1	HEL	0.0684	0.0000	0.0044
B206L	TGO	USER	1	03	A	2	HEL	0.0684	0.0000	0.0044
B206L	TGO	USER	1	03	A	3	HEL	0.0274	0.0000	0.0017
B206L	TGO	USER	1	03	A	4	HEL	0.0274	0.0000	0.0017
B206L	TGO	USER	1	03	A	5	HEL	0.0046	0.0000	0.0003
B206L	TGO	USER	1	03	A	6	HEL	0.0046	0.0000	0.0003
B206L	TGO	USER	1	21	A	0	HEL	0.3646	0.0000	0.0233
B206L	TGO	USER	1	21	A	1	HEL	0.2736	0.0000	0.0175
B206L	TGO	USER	1	21	A	2	HEL	0.2736	0.0000	0.0175
B206L	TGO	USER	1	21	A	3	HEL	0.1095	0.0000	0.0070
B206L	TGO	USER	1	21	A	4	HEL	0.1095	0.0000	0.0070
B206L	TGO	USER	1	21	A	5	HEL	0.0182	0.0000	0.0012
B206L	TGO	USER	1	21	A	6	HEL	0.0182	0.0000	0.0012
B212	APP	USER	1	03	A	0	HEL	0.0176	0.0000	0.0000
B212	APP	USER	1	03	A	1	HEL	0.0108	0.0000	0.0000
B212	APP	USER	1	03	A	2	HEL	0.0108	0.0000	0.0000
B212	APP	USER	1	03	A	3	HEL	0.0029	0.0000	0.0000
B212	APP	USER	1	03	A	4	HEL	0.0029	0.0000	0.0000
B212	APP	USER	1	03	B	0	HEL	0.0529	0.0000	0.0000
B212	APP	USER	1	03	B	1	HEL	0.0325	0.0000	0.0000
B212	APP	USER	1	03	B	2	HEL	0.0325	0.0000	0.0000
B212	APP	USER	1	03	B	3	HEL	0.0088	0.0000	0.0000
B212	APP	USER	1	03	B	4	HEL	0.0088	0.0000	0.0000
B212	APP	USER	1	03	C	0	HEL	0.0176	0.0000	0.0000
B212	APP	USER	1	03	C	1	HEL	0.0108	0.0000	0.0000
B212	APP	USER	1	03	C	2	HEL	0.0108	0.0000	0.0000
B212	APP	USER	1	03	C	3	HEL	0.0029	0.0000	0.0000
B212	APP	USER	1	03	C	4	HEL	0.0029	0.0000	0.0000
B212	APP	USER	1	21	A	0	HEL	0.0247	0.0000	0.0000
B212	APP	USER	1	21	A	1	HEL	0.0185	0.0000	0.0000
B212	APP	USER	1	21	A	2	HEL	0.0185	0.0000	0.0000
B212	APP	USER	1	21	A	3	HEL	0.0074	0.0000	0.0000
B212	APP	USER	1	21	A	4	HEL	0.0074	0.0000	0.0000
B212	APP	USER	1	21	A	5	HEL	0.0012	0.0000	0.0000
B212	APP	USER	1	21	A	6	HEL	0.0012	0.0000	0.0000
B212	APP	USER	1	21	B	0	HEL	0.1234	0.0000	0.0000
B212	APP	USER	1	21	B	1	HEL	0.0759	0.0000	0.0000
B212	APP	USER	1	21	B	2	HEL	0.0759	0.0000	0.0000

B212	APP	USER	1	21	B	3	HEL	0.0206	0.0000	0.0000
B212	APP	USER	1	21	B	4	HEL	0.0206	0.0000	0.0000
B212	APP	USER	1	21	C	0	HEL	0.0206	0.0000	0.0000
B212	APP	USER	1	21	C	1	HEL	0.0126	0.0000	0.0000
B212	APP	USER	1	21	C	2	HEL	0.0126	0.0000	0.0000
B212	APP	USER	1	21	C	3	HEL	0.0034	0.0000	0.0000
B212	APP	USER	1	21	C	4	HEL	0.0034	0.0000	0.0000
B212	APP	USER	1	21	D	0	HEL	0.0206	0.0000	0.0000
B212	APP	USER	1	21	D	1	HEL	0.0126	0.0000	0.0000
B212	APP	USER	1	21	D	2	HEL	0.0126	0.0000	0.0000
B212	APP	USER	1	21	D	3	HEL	0.0034	0.0000	0.0000
B212	APP	USER	1	21	D	4	HEL	0.0034	0.0000	0.0000
B212	APP	USER	1	21	E	0	HEL	0.0103	0.0000	0.0000
B212	APP	USER	1	21	E	1	HEL	0.0063	0.0000	0.0000
B212	APP	USER	1	21	E	2	HEL	0.0063	0.0000	0.0000
B212	APP	USER	1	21	E	3	HEL	0.0017	0.0000	0.0000
B212	APP	USER	1	21	E	4	HEL	0.0017	0.0000	0.0000
B212	DEP	USER	1	03	A	0	HEL	0.0141	0.0000	0.0000
B212	DEP	USER	1	03	A	1	HEL	0.0106	0.0000	0.0000
B212	DEP	USER	1	03	A	2	HEL	0.0106	0.0000	0.0000
B212	DEP	USER	1	03	A	3	HEL	0.0042	0.0000	0.0000
B212	DEP	USER	1	03	A	4	HEL	0.0042	0.0000	0.0000
B212	DEP	USER	1	03	A	5	HEL	0.0007	0.0000	0.0000
B212	DEP	USER	1	03	A	6	HEL	0.0007	0.0000	0.0000
B212	DEP	USER	1	03	B	0	HEL	0.0424	0.0000	0.0000
B212	DEP	USER	1	03	B	1	HEL	0.0318	0.0000	0.0000
B212	DEP	USER	1	03	B	2	HEL	0.0318	0.0000	0.0000
B212	DEP	USER	1	03	B	3	HEL	0.0127	0.0000	0.0000
B212	DEP	USER	1	03	B	4	HEL	0.0127	0.0000	0.0000
B212	DEP	USER	1	03	B	5	HEL	0.0021	0.0000	0.0000
B212	DEP	USER	1	03	B	6	HEL	0.0021	0.0000	0.0000
B212	DEP	USER	1	03	C	0	HEL	0.0176	0.0000	0.0000
B212	DEP	USER	1	03	C	1	HEL	0.0108	0.0000	0.0000
B212	DEP	USER	1	03	C	2	HEL	0.0108	0.0000	0.0000
B212	DEP	USER	1	03	C	3	HEL	0.0029	0.0000	0.0000
B212	DEP	USER	1	03	C	4	HEL	0.0029	0.0000	0.0000
B212	DEP	USER	1	21	A	0	HEL	0.0206	0.0000	0.0000
B212	DEP	USER	1	21	A	1	HEL	0.0126	0.0000	0.0000
B212	DEP	USER	1	21	A	2	HEL	0.0126	0.0000	0.0000
B212	DEP	USER	1	21	A	3	HEL	0.0034	0.0000	0.0000
B212	DEP	USER	1	21	A	4	HEL	0.0034	0.0000	0.0000
B212	DEP	USER	1	21	B	0	HEL	0.0461	0.0000	0.0000
B212	DEP	USER	1	21	B	1	HEL	0.0369	0.0000	0.0000
B212	DEP	USER	1	21	B	2	HEL	0.0369	0.0000	0.0000
B212	DEP	USER	1	21	B	3	HEL	0.0166	0.0000	0.0000
B212	DEP	USER	1	21	B	4	HEL	0.0277	0.0000	0.0000
B212	DEP	USER	1	21	B	5	HEL	0.0055	0.0000	0.0000
B212	DEP	USER	1	21	B	6	HEL	0.0148	0.0000	0.0000
B212	DEP	USER	1	21	C	0	HEL	0.0720	0.0000	0.0000
B212	DEP	USER	1	21	C	1	HEL	0.0443	0.0000	0.0000
B212	DEP	USER	1	21	C	2	HEL	0.0443	0.0000	0.0000
B212	DEP	USER	1	21	C	3	HEL	0.0120	0.0000	0.0000
B212	DEP	USER	1	21	C	4	HEL	0.0120	0.0000	0.0000
B212	DEP	USER	1	21	D	0	HEL	0.0206	0.0000	0.0000
B212	DEP	USER	1	21	D	1	HEL	0.0126	0.0000	0.0000
B212	DEP	USER	1	21	D	2	HEL	0.0126	0.0000	0.0000
B212	DEP	USER	1	21	D	3	HEL	0.0034	0.0000	0.0000

B212	DEP	USER	1	21	D	4	HEL	0.0034	0.0000	0.0000
B212	DEP	USER	1	21	E	0	HEL	0.0206	0.0000	0.0000
B212	DEP	USER	1	21	E	1	HEL	0.0126	0.0000	0.0000
B212	DEP	USER	1	21	E	2	HEL	0.0126	0.0000	0.0000
B212	DEP	USER	1	21	E	3	HEL	0.0034	0.0000	0.0000
B212	DEP	USER	1	21	E	4	HEL	0.0034	0.0000	0.0000
BEC58P	APP	STANDARD	2	03	A	0	GA	0.1295	0.0000	0.0111
BEC58P	APP	STANDARD	2	03	A	1	GA	0.0797	0.0000	0.0068
BEC58P	APP	STANDARD	2	03	A	2	GA	0.0797	0.0000	0.0068
BEC58P	APP	STANDARD	2	03	A	3	GA	0.0216	0.0000	0.0019
BEC58P	APP	STANDARD	2	03	A	4	GA	0.0216	0.0000	0.0019
BEC58P	APP	STANDARD	2	03	B	0	GA	0.3884	0.0000	0.0334
BEC58P	APP	STANDARD	2	03	B	1	GA	0.2390	0.0000	0.0205
BEC58P	APP	STANDARD	2	03	B	2	GA	0.2390	0.0000	0.0205
BEC58P	APP	STANDARD	2	03	B	3	GA	0.0647	0.0000	0.0056
BEC58P	APP	STANDARD	2	03	B	4	GA	0.0647	0.0000	0.0056
BEC58P	APP	STANDARD	2	03	C	0	GA	0.1295	0.0000	0.0111
BEC58P	APP	STANDARD	2	03	C	1	GA	0.0797	0.0000	0.0068
BEC58P	APP	STANDARD	2	03	C	2	GA	0.0797	0.0000	0.0068
BEC58P	APP	STANDARD	2	03	C	3	GA	0.0216	0.0000	0.0019
BEC58P	APP	STANDARD	2	03	C	4	GA	0.0216	0.0000	0.0019
BEC58P	APP	STANDARD	2	21	A	0	GA	0.1815	0.0000	0.0156
BEC58P	APP	STANDARD	2	21	A	1	GA	0.1362	0.0000	0.0117
BEC58P	APP	STANDARD	2	21	A	2	GA	0.1362	0.0000	0.0117
BEC58P	APP	STANDARD	2	21	A	3	GA	0.0545	0.0000	0.0047
BEC58P	APP	STANDARD	2	21	A	4	GA	0.0545	0.0000	0.0047
BEC58P	APP	STANDARD	2	21	A	5	GA	0.0091	0.0000	0.0008
BEC58P	APP	STANDARD	2	21	A	6	GA	0.0091	0.0000	0.0008
BEC58P	APP	STANDARD	2	21	B	0	GA	0.9062	0.0000	0.0779
BEC58P	APP	STANDARD	2	21	B	1	GA	0.5577	0.0000	0.0479
BEC58P	APP	STANDARD	2	21	B	2	GA	0.5577	0.0000	0.0479
BEC58P	APP	STANDARD	2	21	B	3	GA	0.1510	0.0000	0.0130
BEC58P	APP	STANDARD	2	21	B	4	GA	0.1510	0.0000	0.0130
BEC58P	APP	STANDARD	2	21	C	0	GA	0.1510	0.0000	0.0130
BEC58P	APP	STANDARD	2	21	C	1	GA	0.0930	0.0000	0.0080
BEC58P	APP	STANDARD	2	21	C	2	GA	0.0930	0.0000	0.0080
BEC58P	APP	STANDARD	2	21	C	3	GA	0.0252	0.0000	0.0022
BEC58P	APP	STANDARD	2	21	C	4	GA	0.0252	0.0000	0.0022
BEC58P	APP	STANDARD	2	21	D	0	GA	0.1510	0.0000	0.0130
BEC58P	APP	STANDARD	2	21	D	1	GA	0.0930	0.0000	0.0080
BEC58P	APP	STANDARD	2	21	D	2	GA	0.0930	0.0000	0.0080
BEC58P	APP	STANDARD	2	21	D	3	GA	0.0252	0.0000	0.0022
BEC58P	APP	STANDARD	2	21	D	4	GA	0.0252	0.0000	0.0022
BEC58P	APP	STANDARD	2	21	E	0	GA	0.0755	0.0000	0.0065
BEC58P	APP	STANDARD	2	21	E	1	GA	0.0465	0.0000	0.0040
BEC58P	APP	STANDARD	2	21	E	2	GA	0.0465	0.0000	0.0040
BEC58P	APP	STANDARD	2	21	E	3	GA	0.0126	0.0000	0.0011
BEC58P	APP	STANDARD	2	21	E	4	GA	0.0126	0.0000	0.0011
BEC58P	DEP	STANDARD	1	03	A	0	GA	0.1037	0.0000	0.0089
BEC58P	DEP	STANDARD	1	03	A	1	GA	0.0778	0.0000	0.0067
BEC58P	DEP	STANDARD	1	03	A	2	GA	0.0778	0.0000	0.0067
BEC58P	DEP	STANDARD	1	03	A	3	GA	0.0311	0.0000	0.0027
BEC58P	DEP	STANDARD	1	03	A	4	GA	0.0311	0.0000	0.0027
BEC58P	DEP	STANDARD	1	03	A	5	GA	0.0052	0.0000	0.0004
BEC58P	DEP	STANDARD	1	03	A	6	GA	0.0052	0.0000	0.0004
BEC58P	DEP	STANDARD	1	03	B	0	GA	0.3111	0.0000	0.0267
BEC58P	DEP	STANDARD	1	03	B	1	GA	0.2334	0.0000	0.0201

BEC58P	DEP	STANDARD	1	03	B	2	GA	0.2334	0.0000	0.0201
BEC58P	DEP	STANDARD	1	03	B	3	GA	0.0934	0.0000	0.0080
BEC58P	DEP	STANDARD	1	03	B	4	GA	0.0934	0.0000	0.0080
BEC58P	DEP	STANDARD	1	03	B	5	GA	0.0155	0.0000	0.0013
BEC58P	DEP	STANDARD	1	03	B	6	GA	0.0155	0.0000	0.0013
BEC58P	DEP	STANDARD	1	03	C	0	GA	0.1295	0.0000	0.0111
BEC58P	DEP	STANDARD	1	03	C	1	GA	0.0797	0.0000	0.0068
BEC58P	DEP	STANDARD	1	03	C	2	GA	0.0797	0.0000	0.0068
BEC58P	DEP	STANDARD	1	03	C	3	GA	0.0216	0.0000	0.0019
BEC58P	DEP	STANDARD	1	03	C	4	GA	0.0216	0.0000	0.0019
BEC58P	DEP	STANDARD	1	21	A	0	GA	0.0755	0.0000	0.0065
BEC58P	DEP	STANDARD	1	21	A	1	GA	0.0465	0.0000	0.0040
BEC58P	DEP	STANDARD	1	21	A	2	GA	0.0465	0.0000	0.0040
BEC58P	DEP	STANDARD	1	21	A	3	GA	0.0126	0.0000	0.0011
BEC58P	DEP	STANDARD	1	21	A	4	GA	0.0126	0.0000	0.0011
BEC58P	DEP	STANDARD	1	21	B	0	GA	0.4357	0.0000	0.0375
BEC58P	DEP	STANDARD	1	21	B	1	GA	0.3486	0.0000	0.0300
BEC58P	DEP	STANDARD	1	21	B	2	GA	0.3486	0.0000	0.0300
BEC58P	DEP	STANDARD	1	21	B	3	GA	0.1569	0.0000	0.0135
BEC58P	DEP	STANDARD	1	21	B	4	GA	0.2614	0.0000	0.0225
BEC58P	DEP	STANDARD	1	21	B	5	GA	0.0523	0.0000	0.0045
BEC58P	DEP	STANDARD	1	21	B	6	GA	0.1394	0.0000	0.0120
BEC58P	DEP	STANDARD	1	21	C	0	GA	0.3776	0.0000	0.0324
BEC58P	DEP	STANDARD	1	21	C	1	GA	0.2324	0.0000	0.0200
BEC58P	DEP	STANDARD	1	21	C	2	GA	0.2324	0.0000	0.0200
BEC58P	DEP	STANDARD	1	21	C	3	GA	0.0629	0.0000	0.0054
BEC58P	DEP	STANDARD	1	21	C	4	GA	0.0629	0.0000	0.0054
BEC58P	DEP	STANDARD	1	21	D	0	GA	0.1510	0.0000	0.0130
BEC58P	DEP	STANDARD	1	21	D	1	GA	0.0930	0.0000	0.0080
BEC58P	DEP	STANDARD	1	21	D	2	GA	0.0930	0.0000	0.0080
BEC58P	DEP	STANDARD	1	21	D	3	GA	0.0252	0.0000	0.0022
BEC58P	DEP	STANDARD	1	21	D	4	GA	0.0252	0.0000	0.0022
BEC58P	DEP	STANDARD	1	21	E	0	GA	0.1510	0.0000	0.0130
BEC58P	DEP	STANDARD	1	21	E	1	GA	0.0930	0.0000	0.0080
BEC58P	DEP	STANDARD	1	21	E	2	GA	0.0930	0.0000	0.0080
BEC58P	DEP	STANDARD	1	21	E	3	GA	0.0252	0.0000	0.0022
BEC58P	DEP	STANDARD	1	21	E	4	GA	0.0252	0.0000	0.0022
BEC58P	DEP	STANDARD	1	21	F	0	GA	0.0755	0.0000	0.0065
BEC58P	DEP	STANDARD	1	21	F	1	GA	0.0465	0.0000	0.0040
BEC58P	DEP	STANDARD	1	21	F	2	GA	0.0465	0.0000	0.0040
BEC58P	DEP	STANDARD	1	21	F	3	GA	0.0126	0.0000	0.0011
BEC58P	DEP	STANDARD	1	21	F	4	GA	0.0126	0.0000	0.0011
BEC58P	TGO	STANDARD	1	03	A	0	GA	0.0912	0.0000	0.0058
BEC58P	TGO	STANDARD	1	03	A	1	GA	0.0684	0.0000	0.0044
BEC58P	TGO	STANDARD	1	03	A	2	GA	0.0684	0.0000	0.0044
BEC58P	TGO	STANDARD	1	03	A	3	GA	0.0274	0.0000	0.0017
BEC58P	TGO	STANDARD	1	03	A	4	GA	0.0274	0.0000	0.0017
BEC58P	TGO	STANDARD	1	03	A	5	GA	0.0046	0.0000	0.0003
BEC58P	TGO	STANDARD	1	03	A	6	GA	0.0046	0.0000	0.0003
BEC58P	TGO	STANDARD	1	21	A	0	GA	0.3646	0.0000	0.0233
BEC58P	TGO	STANDARD	1	21	A	1	GA	0.2736	0.0000	0.0175
BEC58P	TGO	STANDARD	1	21	A	2	GA	0.2736	0.0000	0.0175
BEC58P	TGO	STANDARD	1	21	A	3	GA	0.1095	0.0000	0.0070
BEC58P	TGO	STANDARD	1	21	A	4	GA	0.1095	0.0000	0.0070
BEC58P	TGO	STANDARD	1	21	A	5	GA	0.0182	0.0000	0.0012
BEC58P	TGO	STANDARD	1	21	A	6	GA	0.0182	0.0000	0.0012
C12	APP	STANDARD	1	03	A	0	MIL	0.0110	0.0000	0.0000

C12	APP	STANDARD	1	03	A	1	MIL	0.0068	0.0000	0.0000
C12	APP	STANDARD	1	03	A	2	MIL	0.0068	0.0000	0.0000
C12	APP	STANDARD	1	03	A	3	MIL	0.0018	0.0000	0.0000
C12	APP	STANDARD	1	03	A	4	MIL	0.0018	0.0000	0.0000
C12	APP	STANDARD	1	03	B	0	MIL	0.0330	0.0000	0.0000
C12	APP	STANDARD	1	03	B	1	MIL	0.0203	0.0000	0.0000
C12	APP	STANDARD	1	03	B	2	MIL	0.0203	0.0000	0.0000
C12	APP	STANDARD	1	03	B	3	MIL	0.0055	0.0000	0.0000
C12	APP	STANDARD	1	03	B	4	MIL	0.0055	0.0000	0.0000
C12	APP	STANDARD	1	03	C	0	MIL	0.0110	0.0000	0.0000
C12	APP	STANDARD	1	03	C	1	MIL	0.0068	0.0000	0.0000
C12	APP	STANDARD	1	03	C	2	MIL	0.0068	0.0000	0.0000
C12	APP	STANDARD	1	03	C	3	MIL	0.0018	0.0000	0.0000
C12	APP	STANDARD	1	03	C	4	MIL	0.0018	0.0000	0.0000
C12	APP	STANDARD	1	21	A	0	MIL	0.0154	0.0000	0.0000
C12	APP	STANDARD	1	21	A	1	MIL	0.0116	0.0000	0.0000
C12	APP	STANDARD	1	21	A	2	MIL	0.0116	0.0000	0.0000
C12	APP	STANDARD	1	21	A	3	MIL	0.0046	0.0000	0.0000
C12	APP	STANDARD	1	21	A	4	MIL	0.0046	0.0000	0.0000
C12	APP	STANDARD	1	21	A	5	MIL	0.0008	0.0000	0.0000
C12	APP	STANDARD	1	21	A	6	MIL	0.0008	0.0000	0.0000
C12	APP	STANDARD	1	21	B	0	MIL	0.0769	0.0000	0.0000
C12	APP	STANDARD	1	21	B	1	MIL	0.0474	0.0000	0.0000
C12	APP	STANDARD	1	21	B	2	MIL	0.0474	0.0000	0.0000
C12	APP	STANDARD	1	21	B	3	MIL	0.0128	0.0000	0.0000
C12	APP	STANDARD	1	21	B	4	MIL	0.0128	0.0000	0.0000
C12	APP	STANDARD	1	21	C	0	MIL	0.0128	0.0000	0.0000
C12	APP	STANDARD	1	21	C	1	MIL	0.0079	0.0000	0.0000
C12	APP	STANDARD	1	21	C	2	MIL	0.0079	0.0000	0.0000
C12	APP	STANDARD	1	21	C	3	MIL	0.0021	0.0000	0.0000
C12	APP	STANDARD	1	21	C	4	MIL	0.0021	0.0000	0.0000
C12	APP	STANDARD	1	21	D	0	MIL	0.0128	0.0000	0.0000
C12	APP	STANDARD	1	21	D	1	MIL	0.0079	0.0000	0.0000
C12	APP	STANDARD	1	21	D	2	MIL	0.0079	0.0000	0.0000
C12	APP	STANDARD	1	21	D	3	MIL	0.0021	0.0000	0.0000
C12	APP	STANDARD	1	21	D	4	MIL	0.0021	0.0000	0.0000
C12	APP	STANDARD	1	21	E	0	MIL	0.0064	0.0000	0.0000
C12	APP	STANDARD	1	21	E	1	MIL	0.0039	0.0000	0.0000
C12	APP	STANDARD	1	21	E	2	MIL	0.0039	0.0000	0.0000
C12	APP	STANDARD	1	21	E	3	MIL	0.0011	0.0000	0.0000
C12	APP	STANDARD	1	21	E	4	MIL	0.0011	0.0000	0.0000
C12	DEP	STANDARD	1	03	A	0	MIL	0.0088	0.0000	0.0000
C12	DEP	STANDARD	1	03	A	1	MIL	0.0066	0.0000	0.0000
C12	DEP	STANDARD	1	03	A	2	MIL	0.0066	0.0000	0.0000
C12	DEP	STANDARD	1	03	A	3	MIL	0.0026	0.0000	0.0000
C12	DEP	STANDARD	1	03	A	4	MIL	0.0026	0.0000	0.0000
C12	DEP	STANDARD	1	03	A	5	MIL	0.0004	0.0000	0.0000
C12	DEP	STANDARD	1	03	A	6	MIL	0.0004	0.0000	0.0000
C12	DEP	STANDARD	1	03	B	0	MIL	0.0264	0.0000	0.0000
C12	DEP	STANDARD	1	03	B	1	MIL	0.0198	0.0000	0.0000
C12	DEP	STANDARD	1	03	B	2	MIL	0.0198	0.0000	0.0000
C12	DEP	STANDARD	1	03	B	3	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	03	B	4	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	03	B	5	MIL	0.0013	0.0000	0.0000
C12	DEP	STANDARD	1	03	B	6	MIL	0.0013	0.0000	0.0000
C12	DEP	STANDARD	1	03	C	0	MIL	0.0110	0.0000	0.0000
C12	DEP	STANDARD	1	03	C	1	MIL	0.0068	0.0000	0.0000

C12	DEP	STANDARD	1	03	C	2	MIL	0.0068	0.0000	0.0000
C12	DEP	STANDARD	1	03	C	3	MIL	0.0018	0.0000	0.0000
C12	DEP	STANDARD	1	03	C	4	MIL	0.0018	0.0000	0.0000
C12	DEP	STANDARD	1	21	A	0	MIL	0.0128	0.0000	0.0000
C12	DEP	STANDARD	1	21	A	1	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	21	A	2	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	21	A	3	MIL	0.0021	0.0000	0.0000
C12	DEP	STANDARD	1	21	A	4	MIL	0.0021	0.0000	0.0000
C12	DEP	STANDARD	1	21	B	0	MIL	0.0288	0.0000	0.0000
C12	DEP	STANDARD	1	21	B	1	MIL	0.0230	0.0000	0.0000
C12	DEP	STANDARD	1	21	B	2	MIL	0.0230	0.0000	0.0000
C12	DEP	STANDARD	1	21	B	3	MIL	0.0104	0.0000	0.0000
C12	DEP	STANDARD	1	21	B	4	MIL	0.0173	0.0000	0.0000
C12	DEP	STANDARD	1	21	B	5	MIL	0.0035	0.0000	0.0000
C12	DEP	STANDARD	1	21	B	6	MIL	0.0092	0.0000	0.0000
C12	DEP	STANDARD	1	21	C	0	MIL	0.0449	0.0000	0.0000
C12	DEP	STANDARD	1	21	C	1	MIL	0.0276	0.0000	0.0000
C12	DEP	STANDARD	1	21	C	2	MIL	0.0276	0.0000	0.0000
C12	DEP	STANDARD	1	21	C	3	MIL	0.0075	0.0000	0.0000
C12	DEP	STANDARD	1	21	C	4	MIL	0.0075	0.0000	0.0000
C12	DEP	STANDARD	1	21	D	0	MIL	0.0128	0.0000	0.0000
C12	DEP	STANDARD	1	21	D	1	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	21	D	2	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	21	D	3	MIL	0.0021	0.0000	0.0000
C12	DEP	STANDARD	1	21	D	4	MIL	0.0021	0.0000	0.0000
C12	DEP	STANDARD	1	21	E	0	MIL	0.0128	0.0000	0.0000
C12	DEP	STANDARD	1	21	E	1	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	21	E	2	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	21	E	3	MIL	0.0021	0.0000	0.0000
C12	DEP	STANDARD	1	21	E	4	MIL	0.0021	0.0000	0.0000
CL600	APP	STANDARD	1	03	A	0	GA	0.0164	0.0000	0.0007
CL600	APP	STANDARD	1	03	A	1	GA	0.0101	0.0000	0.0004
CL600	APP	STANDARD	1	03	A	2	GA	0.0101	0.0000	0.0004
CL600	APP	STANDARD	1	03	A	3	GA	0.0027	0.0000	0.0001
CL600	APP	STANDARD	1	03	A	4	GA	0.0027	0.0000	0.0001
CL600	APP	STANDARD	1	03	B	0	GA	0.0492	0.0000	0.0021
CL600	APP	STANDARD	1	03	B	1	GA	0.0303	0.0000	0.0013
CL600	APP	STANDARD	1	03	B	2	GA	0.0303	0.0000	0.0013
CL600	APP	STANDARD	1	03	B	3	GA	0.0082	0.0000	0.0003
CL600	APP	STANDARD	1	03	B	4	GA	0.0082	0.0000	0.0003
CL600	APP	STANDARD	1	03	C	0	GA	0.0164	0.0000	0.0007
CL600	APP	STANDARD	1	03	C	1	GA	0.0101	0.0000	0.0004
CL600	APP	STANDARD	1	03	C	2	GA	0.0101	0.0000	0.0004
CL600	APP	STANDARD	1	03	C	3	GA	0.0027	0.0000	0.0001
CL600	APP	STANDARD	1	03	C	4	GA	0.0027	0.0000	0.0001
CL600	APP	STANDARD	1	21	A	0	GA	0.0766	0.0000	0.0032
CL600	APP	STANDARD	1	21	A	1	GA	0.0575	0.0000	0.0024
CL600	APP	STANDARD	1	21	A	2	GA	0.0575	0.0000	0.0024
CL600	APP	STANDARD	1	21	A	3	GA	0.0230	0.0000	0.0010
CL600	APP	STANDARD	1	21	A	4	GA	0.0230	0.0000	0.0010
CL600	APP	STANDARD	1	21	A	5	GA	0.0038	0.0000	0.0002
CL600	APP	STANDARD	1	21	A	6	GA	0.0038	0.0000	0.0002
CL600	APP	STANDARD	1	21	B	0	GA	0.0670	0.0000	0.0028
CL600	APP	STANDARD	1	21	B	1	GA	0.0412	0.0000	0.0017
CL600	APP	STANDARD	1	21	B	2	GA	0.0412	0.0000	0.0017
CL600	APP	STANDARD	1	21	B	3	GA	0.0112	0.0000	0.0005
CL600	APP	STANDARD	1	21	B	4	GA	0.0112	0.0000	0.0005

CL600	APP	STANDARD	1	21	C	0	GA	0.0096	0.0000	0.0004
CL600	APP	STANDARD	1	21	C	1	GA	0.0059	0.0000	0.0002
CL600	APP	STANDARD	1	21	C	2	GA	0.0059	0.0000	0.0002
CL600	APP	STANDARD	1	21	C	3	GA	0.0016	0.0000	0.0001
CL600	APP	STANDARD	1	21	C	4	GA	0.0016	0.0000	0.0001
CL600	APP	STANDARD	1	21	D	0	GA	0.0096	0.0000	0.0004
CL600	APP	STANDARD	1	21	D	1	GA	0.0059	0.0000	0.0002
CL600	APP	STANDARD	1	21	D	2	GA	0.0059	0.0000	0.0002
CL600	APP	STANDARD	1	21	D	3	GA	0.0016	0.0000	0.0001
CL600	APP	STANDARD	1	21	D	4	GA	0.0016	0.0000	0.0001
CL600	APP	STANDARD	1	21	E	0	GA	0.0096	0.0000	0.0004
CL600	APP	STANDARD	1	21	E	1	GA	0.0059	0.0000	0.0002
CL600	APP	STANDARD	1	21	E	2	GA	0.0059	0.0000	0.0002
CL600	APP	STANDARD	1	21	E	3	GA	0.0016	0.0000	0.0001
CL600	APP	STANDARD	1	21	E	4	GA	0.0016	0.0000	0.0001
CL600	DEP	STANDARD	1	03	A	0	GA	0.0197	0.0000	0.0008
CL600	DEP	STANDARD	1	03	A	1	GA	0.0148	0.0000	0.0006
CL600	DEP	STANDARD	1	03	A	2	GA	0.0148	0.0000	0.0006
CL600	DEP	STANDARD	1	03	A	3	GA	0.0059	0.0000	0.0002
CL600	DEP	STANDARD	1	03	A	4	GA	0.0059	0.0000	0.0002
CL600	DEP	STANDARD	1	03	A	5	GA	0.0010	0.0000	0.0000
CL600	DEP	STANDARD	1	03	A	6	GA	0.0010	0.0000	0.0000
CL600	DEP	STANDARD	1	03	B	0	GA	0.0394	0.0000	0.0017
CL600	DEP	STANDARD	1	03	B	1	GA	0.0296	0.0000	0.0012
CL600	DEP	STANDARD	1	03	B	2	GA	0.0296	0.0000	0.0012
CL600	DEP	STANDARD	1	03	B	3	GA	0.0118	0.0000	0.0005
CL600	DEP	STANDARD	1	03	B	4	GA	0.0118	0.0000	0.0005
CL600	DEP	STANDARD	1	03	B	5	GA	0.0020	0.0000	0.0001
CL600	DEP	STANDARD	1	03	B	6	GA	0.0020	0.0000	0.0001
CL600	DEP	STANDARD	1	03	C	0	GA	0.0082	0.0000	0.0004
CL600	DEP	STANDARD	1	03	C	1	GA	0.0050	0.0000	0.0002
CL600	DEP	STANDARD	1	03	C	2	GA	0.0050	0.0000	0.0002
CL600	DEP	STANDARD	1	03	C	3	GA	0.0014	0.0000	0.0001
CL600	DEP	STANDARD	1	03	C	4	GA	0.0014	0.0000	0.0001
CL600	DEP	STANDARD	1	21	A	0	GA	0.0096	0.0000	0.0004
CL600	DEP	STANDARD	1	21	A	1	GA	0.0059	0.0000	0.0002
CL600	DEP	STANDARD	1	21	A	2	GA	0.0059	0.0000	0.0002
CL600	DEP	STANDARD	1	21	A	3	GA	0.0016	0.0000	0.0001
CL600	DEP	STANDARD	1	21	A	4	GA	0.0016	0.0000	0.0001
CL600	DEP	STANDARD	1	21	B	0	GA	0.0184	0.0000	0.0008
CL600	DEP	STANDARD	1	21	B	1	GA	0.0147	0.0000	0.0006
CL600	DEP	STANDARD	1	21	B	2	GA	0.0147	0.0000	0.0006
CL600	DEP	STANDARD	1	21	B	3	GA	0.0066	0.0000	0.0003
CL600	DEP	STANDARD	1	21	B	4	GA	0.0110	0.0000	0.0005
CL600	DEP	STANDARD	1	21	B	5	GA	0.0022	0.0000	0.0001
CL600	DEP	STANDARD	1	21	B	6	GA	0.0059	0.0000	0.0002
CL600	DEP	STANDARD	1	21	C	0	GA	0.0076	0.0000	0.0003
CL600	DEP	STANDARD	1	21	C	1	GA	0.0047	0.0000	0.0002
CL600	DEP	STANDARD	1	21	C	2	GA	0.0047	0.0000	0.0002
CL600	DEP	STANDARD	1	21	C	3	GA	0.0013	0.0000	0.0001
CL600	DEP	STANDARD	1	21	C	4	GA	0.0013	0.0000	0.0001
CL600	DEP	STANDARD	1	21	D	0	GA	0.0057	0.0000	0.0002
CL600	DEP	STANDARD	1	21	D	1	GA	0.0035	0.0000	0.0001
CL600	DEP	STANDARD	1	21	D	2	GA	0.0035	0.0000	0.0001
CL600	DEP	STANDARD	1	21	D	3	GA	0.0010	0.0000	0.0000
CL600	DEP	STANDARD	1	21	D	4	GA	0.0010	0.0000	0.0000
CL600	DEP	STANDARD	1	21	E	0	GA	0.0057	0.0000	0.0002

CL600	DEP	STANDARD	1	21	E	1	GA	0.0035	0.0000	0.0001
CL600	DEP	STANDARD	1	21	E	2	GA	0.0035	0.0000	0.0001
CL600	DEP	STANDARD	1	21	E	3	GA	0.0010	0.0000	0.0000
CL600	DEP	STANDARD	1	21	E	4	GA	0.0010	0.0000	0.0000
CL600	DEP	STANDARD	1	21	F	0	GA	0.1340	0.0000	0.0056
CL600	DEP	STANDARD	1	21	F	1	GA	0.0824	0.0000	0.0034
CL600	DEP	STANDARD	1	21	F	2	GA	0.0824	0.0000	0.0034
CL600	DEP	STANDARD	1	21	F	3	GA	0.0223	0.0000	0.0009
CL600	DEP	STANDARD	1	21	F	4	GA	0.0223	0.0000	0.0009
CNA441	APP	STANDARD	1	03	A	0	COM	0.1416	0.0000	0.0208
CNA441	APP	STANDARD	1	03	A	1	COM	0.0871	0.0000	0.0128
CNA441	APP	STANDARD	1	03	A	2	COM	0.0871	0.0000	0.0128
CNA441	APP	STANDARD	1	03	A	3	COM	0.0236	0.0000	0.0035
CNA441	APP	STANDARD	1	03	A	4	COM	0.0236	0.0000	0.0035
CNA441	APP	STANDARD	1	03	B	0	COM	0.4247	0.0000	0.0625
CNA441	APP	STANDARD	1	03	B	1	COM	0.2613	0.0000	0.0385
CNA441	APP	STANDARD	1	03	B	2	COM	0.2613	0.0000	0.0385
CNA441	APP	STANDARD	1	03	B	3	COM	0.0708	0.0000	0.0104
CNA441	APP	STANDARD	1	03	B	4	COM	0.0708	0.0000	0.0104
CNA441	APP	STANDARD	1	03	C	0	COM	0.1416	0.0000	0.0208
CNA441	APP	STANDARD	1	03	C	1	COM	0.0871	0.0000	0.0128
CNA441	APP	STANDARD	1	03	C	2	COM	0.0871	0.0000	0.0128
CNA441	APP	STANDARD	1	03	C	3	COM	0.0236	0.0000	0.0035
CNA441	APP	STANDARD	1	03	C	4	COM	0.0236	0.0000	0.0035
CNA441	APP	STANDARD	1	21	A	0	COM	0.1984	0.0000	0.0292
CNA441	APP	STANDARD	1	21	A	1	COM	0.1489	0.0000	0.0219
CNA441	APP	STANDARD	1	21	A	2	COM	0.1489	0.0000	0.0219
CNA441	APP	STANDARD	1	21	A	3	COM	0.0596	0.0000	0.0088
CNA441	APP	STANDARD	1	21	A	4	COM	0.0596	0.0000	0.0088
CNA441	APP	STANDARD	1	21	A	5	COM	0.0099	0.0000	0.0015
CNA441	APP	STANDARD	1	21	A	6	COM	0.0099	0.0000	0.0015
CNA441	APP	STANDARD	1	21	B	0	COM	0.9909	0.0000	0.1458
CNA441	APP	STANDARD	1	21	B	1	COM	0.6098	0.0000	0.0897
CNA441	APP	STANDARD	1	21	B	2	COM	0.6098	0.0000	0.0897
CNA441	APP	STANDARD	1	21	B	3	COM	0.1652	0.0000	0.0243
CNA441	APP	STANDARD	1	21	B	4	COM	0.1652	0.0000	0.0243
CNA441	APP	STANDARD	1	21	C	0	COM	0.1652	0.0000	0.0243
CNA441	APP	STANDARD	1	21	C	1	COM	0.1016	0.0000	0.0150
CNA441	APP	STANDARD	1	21	C	2	COM	0.1016	0.0000	0.0150
CNA441	APP	STANDARD	1	21	C	3	COM	0.0275	0.0000	0.0040
CNA441	APP	STANDARD	1	21	C	4	COM	0.0275	0.0000	0.0040
CNA441	APP	STANDARD	1	21	D	0	COM	0.1652	0.0000	0.0243
CNA441	APP	STANDARD	1	21	D	1	COM	0.1016	0.0000	0.0150
CNA441	APP	STANDARD	1	21	D	2	COM	0.1016	0.0000	0.0150
CNA441	APP	STANDARD	1	21	D	3	COM	0.0275	0.0000	0.0040
CNA441	APP	STANDARD	1	21	D	4	COM	0.0275	0.0000	0.0040
CNA441	APP	STANDARD	1	21	E	0	COM	0.0826	0.0000	0.0122
CNA441	APP	STANDARD	1	21	E	1	COM	0.0508	0.0000	0.0075
CNA441	APP	STANDARD	1	21	E	2	COM	0.0508	0.0000	0.0075
CNA441	APP	STANDARD	1	21	E	3	COM	0.0138	0.0000	0.0020
CNA441	APP	STANDARD	1	21	E	4	COM	0.0138	0.0000	0.0020
CNA441	DEP	STANDARD	1	03	A	0	COM	0.1134	0.0000	0.0167
CNA441	DEP	STANDARD	1	03	A	1	COM	0.0851	0.0000	0.0125
CNA441	DEP	STANDARD	1	03	A	2	COM	0.0851	0.0000	0.0125
CNA441	DEP	STANDARD	1	03	A	3	COM	0.0340	0.0000	0.0050
CNA441	DEP	STANDARD	1	03	A	4	COM	0.0340	0.0000	0.0050
CNA441	DEP	STANDARD	1	03	A	5	COM	0.0057	0.0000	0.0008

CNA441	DEP	STANDARD	1	03	A	6	COM	0.0057	0.0000	0.0008
CNA441	DEP	STANDARD	1	03	B	0	COM	0.3402	0.0000	0.0501
CNA441	DEP	STANDARD	1	03	B	1	COM	0.2552	0.0000	0.0376
CNA441	DEP	STANDARD	1	03	B	2	COM	0.2552	0.0000	0.0376
CNA441	DEP	STANDARD	1	03	B	3	COM	0.1021	0.0000	0.0150
CNA441	DEP	STANDARD	1	03	B	4	COM	0.1021	0.0000	0.0150
CNA441	DEP	STANDARD	1	03	B	5	COM	0.0170	0.0000	0.0025
CNA441	DEP	STANDARD	1	03	B	6	COM	0.0170	0.0000	0.0025
CNA441	DEP	STANDARD	1	03	C	0	COM	0.1416	0.0000	0.0208
CNA441	DEP	STANDARD	1	03	C	1	COM	0.0871	0.0000	0.0128
CNA441	DEP	STANDARD	1	03	C	2	COM	0.0871	0.0000	0.0128
CNA441	DEP	STANDARD	1	03	C	3	COM	0.0236	0.0000	0.0035
CNA441	DEP	STANDARD	1	03	C	4	COM	0.0236	0.0000	0.0035
CNA441	DEP	STANDARD	1	21	A	0	COM	0.0826	0.0000	0.0122
CNA441	DEP	STANDARD	1	21	A	1	COM	0.0508	0.0000	0.0075
CNA441	DEP	STANDARD	1	21	A	2	COM	0.0508	0.0000	0.0075
CNA441	DEP	STANDARD	1	21	A	3	COM	0.0138	0.0000	0.0020
CNA441	DEP	STANDARD	1	21	A	4	COM	0.0138	0.0000	0.0020
CNA441	DEP	STANDARD	1	21	B	0	COM	0.4764	0.0000	0.0701
CNA441	DEP	STANDARD	1	21	B	1	COM	0.3811	0.0000	0.0561
CNA441	DEP	STANDARD	1	21	B	2	COM	0.3811	0.0000	0.0561
CNA441	DEP	STANDARD	1	21	B	3	COM	0.1715	0.0000	0.0252
CNA441	DEP	STANDARD	1	21	B	4	COM	0.2858	0.0000	0.0421
CNA441	DEP	STANDARD	1	21	B	5	COM	0.0572	0.0000	0.0084
CNA441	DEP	STANDARD	1	21	B	6	COM	0.1524	0.0000	0.0224
CNA441	DEP	STANDARD	1	21	C	0	COM	0.4129	0.0000	0.0608
CNA441	DEP	STANDARD	1	21	C	1	COM	0.2541	0.0000	0.0374
CNA441	DEP	STANDARD	1	21	C	2	COM	0.2541	0.0000	0.0374
CNA441	DEP	STANDARD	1	21	C	3	COM	0.0688	0.0000	0.0101
CNA441	DEP	STANDARD	1	21	C	4	COM	0.0688	0.0000	0.0101
CNA441	DEP	STANDARD	1	21	D	0	COM	0.1652	0.0000	0.0243
CNA441	DEP	STANDARD	1	21	D	1	COM	0.1016	0.0000	0.0150
CNA441	DEP	STANDARD	1	21	D	2	COM	0.1016	0.0000	0.0150
CNA441	DEP	STANDARD	1	21	D	3	COM	0.0275	0.0000	0.0040
CNA441	DEP	STANDARD	1	21	D	4	COM	0.0275	0.0000	0.0040
CNA441	DEP	STANDARD	1	21	E	0	COM	0.1652	0.0000	0.0243
CNA441	DEP	STANDARD	1	21	E	1	COM	0.1016	0.0000	0.0150
CNA441	DEP	STANDARD	1	21	E	2	COM	0.1016	0.0000	0.0150
CNA441	DEP	STANDARD	1	21	E	3	COM	0.0275	0.0000	0.0040
CNA441	DEP	STANDARD	1	21	E	4	COM	0.0275	0.0000	0.0040
CNA441	DEP	STANDARD	1	21	F	0	COM	0.0826	0.0000	0.0122
CNA441	DEP	STANDARD	1	21	F	1	COM	0.0508	0.0000	0.0075
CNA441	DEP	STANDARD	1	21	F	2	COM	0.0508	0.0000	0.0075
CNA441	DEP	STANDARD	1	21	F	3	COM	0.0138	0.0000	0.0020
CNA441	DEP	STANDARD	1	21	F	4	COM	0.0138	0.0000	0.0020
CNA441	TGO	STANDARD	1	03	A	0	COM	0.0439	0.0000	0.0043
CNA441	TGO	STANDARD	1	03	A	1	COM	0.0329	0.0000	0.0033
CNA441	TGO	STANDARD	1	03	A	2	COM	0.0329	0.0000	0.0033
CNA441	TGO	STANDARD	1	03	A	3	COM	0.0132	0.0000	0.0013
CNA441	TGO	STANDARD	1	03	A	4	COM	0.0132	0.0000	0.0013
CNA441	TGO	STANDARD	1	03	A	5	COM	0.0022	0.0000	0.0002
CNA441	TGO	STANDARD	1	03	A	6	COM	0.0022	0.0000	0.0002
CNA441	TGO	STANDARD	1	21	A	0	COM	0.1754	0.0000	0.0173
CNA441	TGO	STANDARD	1	21	A	1	COM	0.1316	0.0000	0.0130
CNA441	TGO	STANDARD	1	21	A	2	COM	0.1316	0.0000	0.0130
CNA441	TGO	STANDARD	1	21	A	3	COM	0.0527	0.0000	0.0052
CNA441	TGO	STANDARD	1	21	A	4	COM	0.0527	0.0000	0.0052

CNA441	TGO	STANDARD	1	21	A	5	COM	0.0088	0.0000	0.0009
CNA441	TGO	STANDARD	1	21	A	6	COM	0.0088	0.0000	0.0009
CNA500	APP	STANDARD	1	03	A	0	GA	0.0164	0.0000	0.0007
CNA500	APP	STANDARD	1	03	A	1	GA	0.0101	0.0000	0.0004
CNA500	APP	STANDARD	1	03	A	2	GA	0.0101	0.0000	0.0004
CNA500	APP	STANDARD	1	03	A	3	GA	0.0027	0.0000	0.0001
CNA500	APP	STANDARD	1	03	A	4	GA	0.0027	0.0000	0.0001
CNA500	APP	STANDARD	1	03	B	0	GA	0.0492	0.0000	0.0021
CNA500	APP	STANDARD	1	03	B	1	GA	0.0303	0.0000	0.0013
CNA500	APP	STANDARD	1	03	B	2	GA	0.0303	0.0000	0.0013
CNA500	APP	STANDARD	1	03	B	3	GA	0.0082	0.0000	0.0003
CNA500	APP	STANDARD	1	03	B	4	GA	0.0082	0.0000	0.0003
CNA500	APP	STANDARD	1	03	C	0	GA	0.0164	0.0000	0.0007
CNA500	APP	STANDARD	1	03	C	1	GA	0.0101	0.0000	0.0004
CNA500	APP	STANDARD	1	03	C	2	GA	0.0101	0.0000	0.0004
CNA500	APP	STANDARD	1	03	C	3	GA	0.0027	0.0000	0.0001
CNA500	APP	STANDARD	1	03	C	4	GA	0.0027	0.0000	0.0001
CNA500	APP	STANDARD	1	21	A	0	GA	0.0766	0.0000	0.0032
CNA500	APP	STANDARD	1	21	A	1	GA	0.0575	0.0000	0.0024
CNA500	APP	STANDARD	1	21	A	2	GA	0.0575	0.0000	0.0024
CNA500	APP	STANDARD	1	21	A	3	GA	0.0230	0.0000	0.0010
CNA500	APP	STANDARD	1	21	A	4	GA	0.0230	0.0000	0.0010
CNA500	APP	STANDARD	1	21	A	5	GA	0.0038	0.0000	0.0002
CNA500	APP	STANDARD	1	21	A	6	GA	0.0038	0.0000	0.0002
CNA500	APP	STANDARD	1	21	B	0	GA	0.0670	0.0000	0.0028
CNA500	APP	STANDARD	1	21	B	1	GA	0.0412	0.0000	0.0017
CNA500	APP	STANDARD	1	21	B	2	GA	0.0412	0.0000	0.0017
CNA500	APP	STANDARD	1	21	B	3	GA	0.0112	0.0000	0.0005
CNA500	APP	STANDARD	1	21	B	4	GA	0.0112	0.0000	0.0005
CNA500	APP	STANDARD	1	21	C	0	GA	0.0096	0.0000	0.0004
CNA500	APP	STANDARD	1	21	C	1	GA	0.0059	0.0000	0.0002
CNA500	APP	STANDARD	1	21	C	2	GA	0.0059	0.0000	0.0002
CNA500	APP	STANDARD	1	21	C	3	GA	0.0016	0.0000	0.0001
CNA500	APP	STANDARD	1	21	C	4	GA	0.0016	0.0000	0.0001
CNA500	APP	STANDARD	1	21	D	0	GA	0.0096	0.0000	0.0004
CNA500	APP	STANDARD	1	21	D	1	GA	0.0059	0.0000	0.0002
CNA500	APP	STANDARD	1	21	D	2	GA	0.0059	0.0000	0.0002
CNA500	APP	STANDARD	1	21	D	3	GA	0.0016	0.0000	0.0001
CNA500	APP	STANDARD	1	21	D	4	GA	0.0016	0.0000	0.0001
CNA500	APP	STANDARD	1	21	E	0	GA	0.0096	0.0000	0.0004
CNA500	APP	STANDARD	1	21	E	1	GA	0.0059	0.0000	0.0002
CNA500	APP	STANDARD	1	21	E	2	GA	0.0059	0.0000	0.0002
CNA500	APP	STANDARD	1	21	E	3	GA	0.0016	0.0000	0.0001
CNA500	APP	STANDARD	1	21	E	4	GA	0.0016	0.0000	0.0001
CNA500	DEP	STANDARD	1	03	A	0	GA	0.0197	0.0000	0.0008
CNA500	DEP	STANDARD	1	03	A	1	GA	0.0148	0.0000	0.0006
CNA500	DEP	STANDARD	1	03	A	2	GA	0.0148	0.0000	0.0006
CNA500	DEP	STANDARD	1	03	A	3	GA	0.0059	0.0000	0.0002
CNA500	DEP	STANDARD	1	03	A	4	GA	0.0059	0.0000	0.0002
CNA500	DEP	STANDARD	1	03	A	5	GA	0.0010	0.0000	0.0000
CNA500	DEP	STANDARD	1	03	A	6	GA	0.0010	0.0000	0.0000
CNA500	DEP	STANDARD	1	03	B	0	GA	0.0394	0.0000	0.0017
CNA500	DEP	STANDARD	1	03	B	1	GA	0.0296	0.0000	0.0012
CNA500	DEP	STANDARD	1	03	B	2	GA	0.0296	0.0000	0.0012
CNA500	DEP	STANDARD	1	03	B	3	GA	0.0118	0.0000	0.0005
CNA500	DEP	STANDARD	1	03	B	4	GA	0.0118	0.0000	0.0005
CNA500	DEP	STANDARD	1	03	B	5	GA	0.0020	0.0000	0.0001

CNA500	DEP	STANDARD	1	03	B	6	GA	0.0020	0.0000	0.0001
CNA500	DEP	STANDARD	1	03	C	0	GA	0.0082	0.0000	0.0004
CNA500	DEP	STANDARD	1	03	C	1	GA	0.0050	0.0000	0.0002
CNA500	DEP	STANDARD	1	03	C	2	GA	0.0050	0.0000	0.0002
CNA500	DEP	STANDARD	1	03	C	3	GA	0.0014	0.0000	0.0001
CNA500	DEP	STANDARD	1	03	C	4	GA	0.0014	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	A	0	GA	0.0096	0.0000	0.0004
CNA500	DEP	STANDARD	1	21	A	1	GA	0.0059	0.0000	0.0002
CNA500	DEP	STANDARD	1	21	A	2	GA	0.0059	0.0000	0.0002
CNA500	DEP	STANDARD	1	21	A	3	GA	0.0016	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	A	4	GA	0.0016	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	B	0	GA	0.0184	0.0000	0.0008
CNA500	DEP	STANDARD	1	21	B	1	GA	0.0147	0.0000	0.0006
CNA500	DEP	STANDARD	1	21	B	2	GA	0.0147	0.0000	0.0006
CNA500	DEP	STANDARD	1	21	B	3	GA	0.0066	0.0000	0.0003
CNA500	DEP	STANDARD	1	21	B	4	GA	0.0110	0.0000	0.0005
CNA500	DEP	STANDARD	1	21	B	5	GA	0.0022	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	B	6	GA	0.0059	0.0000	0.0002
CNA500	DEP	STANDARD	1	21	C	0	GA	0.0076	0.0000	0.0003
CNA500	DEP	STANDARD	1	21	C	1	GA	0.0047	0.0000	0.0002
CNA500	DEP	STANDARD	1	21	C	2	GA	0.0047	0.0000	0.0002
CNA500	DEP	STANDARD	1	21	C	3	GA	0.0013	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	C	4	GA	0.0013	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	D	0	GA	0.0057	0.0000	0.0002
CNA500	DEP	STANDARD	1	21	D	1	GA	0.0035	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	D	2	GA	0.0035	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	D	3	GA	0.0010	0.0000	0.0000
CNA500	DEP	STANDARD	1	21	D	4	GA	0.0010	0.0000	0.0000
CNA500	DEP	STANDARD	1	21	E	0	GA	0.0057	0.0000	0.0002
CNA500	DEP	STANDARD	1	21	E	1	GA	0.0035	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	E	2	GA	0.0035	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	E	3	GA	0.0010	0.0000	0.0000
CNA500	DEP	STANDARD	1	21	E	4	GA	0.0010	0.0000	0.0000
CNA500	DEP	STANDARD	1	21	F	0	GA	0.1340	0.0000	0.0056
CNA500	DEP	STANDARD	1	21	F	1	GA	0.0824	0.0000	0.0034
CNA500	DEP	STANDARD	1	21	F	2	GA	0.0824	0.0000	0.0034
CNA500	DEP	STANDARD	1	21	F	3	GA	0.0223	0.0000	0.0009
CNA500	DEP	STANDARD	1	21	F	4	GA	0.0223	0.0000	0.0009
DHC6	APP	STANDARD	1	03	A	0	COM	0.0997	0.0000	0.0179
DHC6	APP	STANDARD	1	03	A	1	COM	0.0613	0.0000	0.0110
DHC6	APP	STANDARD	1	03	A	2	COM	0.0613	0.0000	0.0110
DHC6	APP	STANDARD	1	03	A	3	COM	0.0166	0.0000	0.0030
DHC6	APP	STANDARD	1	03	A	4	COM	0.0166	0.0000	0.0030
DHC6	APP	STANDARD	1	03	B	0	COM	0.2990	0.0000	0.0536
DHC6	APP	STANDARD	1	03	B	1	COM	0.1840	0.0000	0.0330
DHC6	APP	STANDARD	1	03	B	2	COM	0.1840	0.0000	0.0330
DHC6	APP	STANDARD	1	03	B	3	COM	0.0498	0.0000	0.0089
DHC6	APP	STANDARD	1	03	B	4	COM	0.0498	0.0000	0.0089
DHC6	APP	STANDARD	1	03	C	0	COM	0.0997	0.0000	0.0179
DHC6	APP	STANDARD	1	03	C	1	COM	0.0613	0.0000	0.0110
DHC6	APP	STANDARD	1	03	C	2	COM	0.0613	0.0000	0.0110
DHC6	APP	STANDARD	1	03	C	3	COM	0.0166	0.0000	0.0030
DHC6	APP	STANDARD	1	03	C	4	COM	0.0166	0.0000	0.0030
DHC6	APP	STANDARD	1	21	A	0	COM	0.4657	0.0000	0.0835
DHC6	APP	STANDARD	1	21	A	1	COM	0.3494	0.0000	0.0627
DHC6	APP	STANDARD	1	21	A	2	COM	0.3494	0.0000	0.0627
DHC6	APP	STANDARD	1	21	A	3	COM	0.1398	0.0000	0.0251

DHC6	APP	STANDARD	1	21	A	4	COM	0.1398	0.0000	0.0251
DHC6	APP	STANDARD	1	21	A	5	COM	0.0233	0.0000	0.0042
DHC6	APP	STANDARD	1	21	A	6	COM	0.0233	0.0000	0.0042
DHC6	APP	STANDARD	1	21	B	0	COM	0.4070	0.0000	0.0730
DHC6	APP	STANDARD	1	21	B	1	COM	0.2504	0.0000	0.0449
DHC6	APP	STANDARD	1	21	B	2	COM	0.2504	0.0000	0.0449
DHC6	APP	STANDARD	1	21	B	3	COM	0.0678	0.0000	0.0122
DHC6	APP	STANDARD	1	21	B	4	COM	0.0678	0.0000	0.0122
DHC6	APP	STANDARD	1	21	C	0	COM	0.0581	0.0000	0.0104
DHC6	APP	STANDARD	1	21	C	1	COM	0.0358	0.0000	0.0064
DHC6	APP	STANDARD	1	21	C	2	COM	0.0358	0.0000	0.0064
DHC6	APP	STANDARD	1	21	C	3	COM	0.0097	0.0000	0.0017
DHC6	APP	STANDARD	1	21	C	4	COM	0.0097	0.0000	0.0017
DHC6	APP	STANDARD	1	21	D	0	COM	0.0581	0.0000	0.0104
DHC6	APP	STANDARD	1	21	D	1	COM	0.0358	0.0000	0.0064
DHC6	APP	STANDARD	1	21	D	2	COM	0.0358	0.0000	0.0064
DHC6	APP	STANDARD	1	21	D	3	COM	0.0097	0.0000	0.0017
DHC6	APP	STANDARD	1	21	D	4	COM	0.0097	0.0000	0.0017
DHC6	APP	STANDARD	1	21	E	0	COM	0.0581	0.0000	0.0104
DHC6	APP	STANDARD	1	21	E	1	COM	0.0358	0.0000	0.0064
DHC6	APP	STANDARD	1	21	E	2	COM	0.0358	0.0000	0.0064
DHC6	APP	STANDARD	1	21	E	3	COM	0.0097	0.0000	0.0017
DHC6	APP	STANDARD	1	21	E	4	COM	0.0097	0.0000	0.0017
DHC6	DEP	STANDARD	1	03	A	0	COM	0.1026	0.0000	0.0387
DHC6	DEP	STANDARD	1	03	A	1	COM	0.0770	0.0000	0.0290
DHC6	DEP	STANDARD	1	03	A	2	COM	0.0770	0.0000	0.0290
DHC6	DEP	STANDARD	1	03	A	3	COM	0.0308	0.0000	0.0116
DHC6	DEP	STANDARD	1	03	A	4	COM	0.0308	0.0000	0.0116
DHC6	DEP	STANDARD	1	03	A	5	COM	0.0051	0.0000	0.0019
DHC6	DEP	STANDARD	1	03	A	6	COM	0.0051	0.0000	0.0019
DHC6	DEP	STANDARD	1	03	B	0	COM	0.2052	0.0000	0.0773
DHC6	DEP	STANDARD	1	03	B	1	COM	0.1539	0.0000	0.0580
DHC6	DEP	STANDARD	1	03	B	2	COM	0.1539	0.0000	0.0580
DHC6	DEP	STANDARD	1	03	B	3	COM	0.0616	0.0000	0.0232
DHC6	DEP	STANDARD	1	03	B	4	COM	0.0616	0.0000	0.0232
DHC6	DEP	STANDARD	1	03	B	5	COM	0.0102	0.0000	0.0039
DHC6	DEP	STANDARD	1	03	B	6	COM	0.0102	0.0000	0.0039
DHC6	DEP	STANDARD	1	03	C	0	COM	0.0427	0.0000	0.0161
DHC6	DEP	STANDARD	1	03	C	1	COM	0.0263	0.0000	0.0099
DHC6	DEP	STANDARD	1	03	C	2	COM	0.0263	0.0000	0.0099
DHC6	DEP	STANDARD	1	03	C	3	COM	0.0071	0.0000	0.0027
DHC6	DEP	STANDARD	1	03	C	4	COM	0.0071	0.0000	0.0027
DHC6	DEP	STANDARD	1	21	A	0	COM	0.0498	0.0000	0.0188
DHC6	DEP	STANDARD	1	21	A	1	COM	0.0306	0.0000	0.0115
DHC6	DEP	STANDARD	1	21	A	2	COM	0.0306	0.0000	0.0115
DHC6	DEP	STANDARD	1	21	A	3	COM	0.0083	0.0000	0.0031
DHC6	DEP	STANDARD	1	21	A	4	COM	0.0083	0.0000	0.0031
DHC6	DEP	STANDARD	1	21	B	0	COM	0.0958	0.0000	0.0361
DHC6	DEP	STANDARD	1	21	B	1	COM	0.0766	0.0000	0.0289
DHC6	DEP	STANDARD	1	21	B	2	COM	0.0766	0.0000	0.0289
DHC6	DEP	STANDARD	1	21	B	3	COM	0.0345	0.0000	0.0130
DHC6	DEP	STANDARD	1	21	B	4	COM	0.0575	0.0000	0.0217
DHC6	DEP	STANDARD	1	21	B	5	COM	0.0115	0.0000	0.0043
DHC6	DEP	STANDARD	1	21	B	6	COM	0.0306	0.0000	0.0116
DHC6	DEP	STANDARD	1	21	C	0	COM	0.0398	0.0000	0.0150
DHC6	DEP	STANDARD	1	21	C	1	COM	0.0245	0.0000	0.0092
DHC6	DEP	STANDARD	1	21	C	2	COM	0.0245	0.0000	0.0092

DHC6	DEP	STANDARD	1	21	C	3	COM	0.0066	0.0000	0.0025
DHC6	DEP	STANDARD	1	21	C	4	COM	0.0066	0.0000	0.0025
DHC6	DEP	STANDARD	1	21	D	0	COM	0.0299	0.0000	0.0113
DHC6	DEP	STANDARD	1	21	D	1	COM	0.0184	0.0000	0.0069
DHC6	DEP	STANDARD	1	21	D	2	COM	0.0184	0.0000	0.0069
DHC6	DEP	STANDARD	1	21	D	3	COM	0.0050	0.0000	0.0019
DHC6	DEP	STANDARD	1	21	D	4	COM	0.0050	0.0000	0.0019
DHC6	DEP	STANDARD	1	21	E	0	COM	0.0299	0.0000	0.0113
DHC6	DEP	STANDARD	1	21	E	1	COM	0.0184	0.0000	0.0069
DHC6	DEP	STANDARD	1	21	E	2	COM	0.0184	0.0000	0.0069
DHC6	DEP	STANDARD	1	21	E	3	COM	0.0050	0.0000	0.0019
DHC6	DEP	STANDARD	1	21	E	4	COM	0.0050	0.0000	0.0019
DHC6	DEP	STANDARD	1	21	F	0	COM	0.6972	0.0000	0.2628
DHC6	DEP	STANDARD	1	21	F	1	COM	0.4290	0.0000	0.1617
DHC6	DEP	STANDARD	1	21	F	2	COM	0.4290	0.0000	0.1617
DHC6	DEP	STANDARD	1	21	F	3	COM	0.1162	0.0000	0.0438
DHC6	DEP	STANDARD	1	21	F	4	COM	0.1162	0.0000	0.0438
DHC8	APP	STANDARD	1	03	A	0	COM	0.0301	0.0000	0.0054
DHC8	APP	STANDARD	1	03	A	1	COM	0.0185	0.0000	0.0033
DHC8	APP	STANDARD	1	03	A	2	COM	0.0185	0.0000	0.0033
DHC8	APP	STANDARD	1	03	A	3	COM	0.0050	0.0000	0.0009
DHC8	APP	STANDARD	1	03	A	4	COM	0.0050	0.0000	0.0009
DHC8	APP	STANDARD	1	03	B	0	COM	0.0904	0.0000	0.0162
DHC8	APP	STANDARD	1	03	B	1	COM	0.0556	0.0000	0.0100
DHC8	APP	STANDARD	1	03	B	2	COM	0.0556	0.0000	0.0100
DHC8	APP	STANDARD	1	03	B	3	COM	0.0151	0.0000	0.0027
DHC8	APP	STANDARD	1	03	B	4	COM	0.0151	0.0000	0.0027
DHC8	APP	STANDARD	1	03	C	0	COM	0.0301	0.0000	0.0054
DHC8	APP	STANDARD	1	03	C	1	COM	0.0185	0.0000	0.0033
DHC8	APP	STANDARD	1	03	C	2	COM	0.0185	0.0000	0.0033
DHC8	APP	STANDARD	1	03	C	3	COM	0.0050	0.0000	0.0009
DHC8	APP	STANDARD	1	03	C	4	COM	0.0050	0.0000	0.0009
DHC8	APP	STANDARD	1	21	A	0	COM	0.1407	0.0000	0.0252
DHC8	APP	STANDARD	1	21	A	1	COM	0.1056	0.0000	0.0189
DHC8	APP	STANDARD	1	21	A	2	COM	0.1056	0.0000	0.0189
DHC8	APP	STANDARD	1	21	A	3	COM	0.0423	0.0000	0.0076
DHC8	APP	STANDARD	1	21	A	4	COM	0.0423	0.0000	0.0076
DHC8	APP	STANDARD	1	21	A	5	COM	0.0070	0.0000	0.0013
DHC8	APP	STANDARD	1	21	A	6	COM	0.0070	0.0000	0.0013
DHC8	APP	STANDARD	1	21	B	0	COM	0.1230	0.0000	0.0220
DHC8	APP	STANDARD	1	21	B	1	COM	0.0757	0.0000	0.0136
DHC8	APP	STANDARD	1	21	B	2	COM	0.0757	0.0000	0.0136
DHC8	APP	STANDARD	1	21	B	3	COM	0.0205	0.0000	0.0037
DHC8	APP	STANDARD	1	21	B	4	COM	0.0205	0.0000	0.0037
DHC8	APP	STANDARD	1	21	C	0	COM	0.0176	0.0000	0.0032
DHC8	APP	STANDARD	1	21	C	1	COM	0.0108	0.0000	0.0019
DHC8	APP	STANDARD	1	21	C	2	COM	0.0108	0.0000	0.0019
DHC8	APP	STANDARD	1	21	C	3	COM	0.0029	0.0000	0.0005
DHC8	APP	STANDARD	1	21	C	4	COM	0.0029	0.0000	0.0005
DHC8	APP	STANDARD	1	21	D	0	COM	0.0176	0.0000	0.0032
DHC8	APP	STANDARD	1	21	D	1	COM	0.0108	0.0000	0.0019
DHC8	APP	STANDARD	1	21	D	2	COM	0.0108	0.0000	0.0019
DHC8	APP	STANDARD	1	21	D	3	COM	0.0029	0.0000	0.0005
DHC8	APP	STANDARD	1	21	D	4	COM	0.0029	0.0000	0.0005
DHC8	APP	STANDARD	1	21	E	0	COM	0.0176	0.0000	0.0032
DHC8	APP	STANDARD	1	21	E	1	COM	0.0108	0.0000	0.0019
DHC8	APP	STANDARD	1	21	E	2	COM	0.0108	0.0000	0.0019

DHC8	APP	STANDARD	1	21	E	3	COM	0.0029	0.0000	0.0005
DHC8	APP	STANDARD	1	21	E	4	COM	0.0029	0.0000	0.0005
DHC8	DEP	STANDARD	1	03	A	0	COM	0.0310	0.0000	0.0117
DHC8	DEP	STANDARD	1	03	A	1	COM	0.0233	0.0000	0.0087
DHC8	DEP	STANDARD	1	03	A	2	COM	0.0233	0.0000	0.0087
DHC8	DEP	STANDARD	1	03	A	3	COM	0.0093	0.0000	0.0035
DHC8	DEP	STANDARD	1	03	A	4	COM	0.0093	0.0000	0.0035
DHC8	DEP	STANDARD	1	03	A	5	COM	0.0015	0.0000	0.0006
DHC8	DEP	STANDARD	1	03	A	6	COM	0.0015	0.0000	0.0006
DHC8	DEP	STANDARD	1	03	B	0	COM	0.0620	0.0000	0.0233
DHC8	DEP	STANDARD	1	03	B	1	COM	0.0466	0.0000	0.0175
DHC8	DEP	STANDARD	1	03	B	2	COM	0.0466	0.0000	0.0175
DHC8	DEP	STANDARD	1	03	B	3	COM	0.0186	0.0000	0.0070
DHC8	DEP	STANDARD	1	03	B	4	COM	0.0186	0.0000	0.0070
DHC8	DEP	STANDARD	1	03	B	5	COM	0.0031	0.0000	0.0012
DHC8	DEP	STANDARD	1	03	B	6	COM	0.0031	0.0000	0.0012
DHC8	DEP	STANDARD	1	03	C	0	COM	0.0129	0.0000	0.0048
DHC8	DEP	STANDARD	1	03	C	1	COM	0.0079	0.0000	0.0030
DHC8	DEP	STANDARD	1	03	C	2	COM	0.0079	0.0000	0.0030
DHC8	DEP	STANDARD	1	03	C	3	COM	0.0022	0.0000	0.0008
DHC8	DEP	STANDARD	1	03	C	4	COM	0.0022	0.0000	0.0008
DHC8	DEP	STANDARD	1	21	A	0	COM	0.0151	0.0000	0.0057
DHC8	DEP	STANDARD	1	21	A	1	COM	0.0093	0.0000	0.0035
DHC8	DEP	STANDARD	1	21	A	2	COM	0.0093	0.0000	0.0035
DHC8	DEP	STANDARD	1	21	A	3	COM	0.0025	0.0000	0.0009
DHC8	DEP	STANDARD	1	21	A	4	COM	0.0025	0.0000	0.0009
DHC8	DEP	STANDARD	1	21	B	0	COM	0.0290	0.0000	0.0109
DHC8	DEP	STANDARD	1	21	B	1	COM	0.0232	0.0000	0.0087
DHC8	DEP	STANDARD	1	21	B	2	COM	0.0232	0.0000	0.0087
DHC8	DEP	STANDARD	1	21	B	3	COM	0.0104	0.0000	0.0039
DHC8	DEP	STANDARD	1	21	B	4	COM	0.0174	0.0000	0.0065
DHC8	DEP	STANDARD	1	21	B	5	COM	0.0035	0.0000	0.0013
DHC8	DEP	STANDARD	1	21	B	6	COM	0.0093	0.0000	0.0035
DHC8	DEP	STANDARD	1	21	C	0	COM	0.0121	0.0000	0.0045
DHC8	DEP	STANDARD	1	21	C	1	COM	0.0074	0.0000	0.0028
DHC8	DEP	STANDARD	1	21	C	2	COM	0.0074	0.0000	0.0028
DHC8	DEP	STANDARD	1	21	C	3	COM	0.0020	0.0000	0.0008
DHC8	DEP	STANDARD	1	21	C	4	COM	0.0020	0.0000	0.0008
DHC8	DEP	STANDARD	1	21	D	0	COM	0.0090	0.0000	0.0034
DHC8	DEP	STANDARD	1	21	D	1	COM	0.0056	0.0000	0.0021
DHC8	DEP	STANDARD	1	21	D	2	COM	0.0056	0.0000	0.0021
DHC8	DEP	STANDARD	1	21	D	3	COM	0.0015	0.0000	0.0006
DHC8	DEP	STANDARD	1	21	D	4	COM	0.0015	0.0000	0.0006
DHC8	DEP	STANDARD	1	21	E	0	COM	0.0090	0.0000	0.0034
DHC8	DEP	STANDARD	1	21	E	1	COM	0.0056	0.0000	0.0021
DHC8	DEP	STANDARD	1	21	E	2	COM	0.0056	0.0000	0.0021
DHC8	DEP	STANDARD	1	21	E	3	COM	0.0015	0.0000	0.0006
DHC8	DEP	STANDARD	1	21	E	4	COM	0.0015	0.0000	0.0006
DHC8	DEP	STANDARD	1	21	F	0	COM	0.2109	0.0000	0.0792
DHC8	DEP	STANDARD	1	21	F	1	COM	0.1298	0.0000	0.0487
DHC8	DEP	STANDARD	1	21	F	2	COM	0.1298	0.0000	0.0487
DHC8	DEP	STANDARD	1	21	F	3	COM	0.0351	0.0000	0.0132
DHC8	DEP	STANDARD	1	21	F	4	COM	0.0351	0.0000	0.0132
GASEPF	APP	STANDARD	2	03	A	0	GA	0.4155	0.0000	0.0280
GASEPF	APP	STANDARD	2	03	A	1	GA	0.2557	0.0000	0.0172
GASEPF	APP	STANDARD	2	03	A	2	GA	0.2557	0.0000	0.0172
GASEPF	APP	STANDARD	2	03	A	3	GA	0.0692	0.0000	0.0047

GASEPF	APP	STANDARD	2	03	A	4	GA	0.0692	0.0000	0.0047
GASEPF	APP	STANDARD	2	03	B	0	GA	1.2464	0.0000	0.0839
GASEPF	APP	STANDARD	2	03	B	1	GA	0.7670	0.0000	0.0516
GASEPF	APP	STANDARD	2	03	B	2	GA	0.7670	0.0000	0.0516
GASEPF	APP	STANDARD	2	03	B	3	GA	0.2077	0.0000	0.0140
GASEPF	APP	STANDARD	2	03	B	4	GA	0.2077	0.0000	0.0140
GASEPF	APP	STANDARD	2	03	C	0	GA	0.4155	0.0000	0.0280
GASEPF	APP	STANDARD	2	03	C	1	GA	0.2557	0.0000	0.0172
GASEPF	APP	STANDARD	2	03	C	2	GA	0.2557	0.0000	0.0172
GASEPF	APP	STANDARD	2	03	C	3	GA	0.0692	0.0000	0.0047
GASEPF	APP	STANDARD	2	03	C	4	GA	0.0692	0.0000	0.0047
GASEPF	APP	STANDARD	2	21	A	0	GA	0.5824	0.0000	0.0392
GASEPF	APP	STANDARD	2	21	A	1	GA	0.4370	0.0000	0.0294
GASEPF	APP	STANDARD	2	21	A	2	GA	0.4370	0.0000	0.0294
GASEPF	APP	STANDARD	2	21	A	3	GA	0.1749	0.0000	0.0118
GASEPF	APP	STANDARD	2	21	A	4	GA	0.1749	0.0000	0.0118
GASEPF	APP	STANDARD	2	21	A	5	GA	0.0291	0.0000	0.0020
GASEPF	APP	STANDARD	2	21	A	6	GA	0.0291	0.0000	0.0020
GASEPF	APP	STANDARD	2	21	B	0	GA	2.9084	0.0000	0.1958
GASEPF	APP	STANDARD	2	21	B	1	GA	1.7898	0.0000	0.1205
GASEPF	APP	STANDARD	2	21	B	2	GA	1.7898	0.0000	0.1205
GASEPF	APP	STANDARD	2	21	B	3	GA	0.4847	0.0000	0.0326
GASEPF	APP	STANDARD	2	21	B	4	GA	0.4847	0.0000	0.0326
GASEPF	APP	STANDARD	2	21	C	0	GA	0.4847	0.0000	0.0326
GASEPF	APP	STANDARD	2	21	C	1	GA	0.2983	0.0000	0.0201
GASEPF	APP	STANDARD	2	21	C	2	GA	0.2983	0.0000	0.0201
GASEPF	APP	STANDARD	2	21	C	3	GA	0.0808	0.0000	0.0054
GASEPF	APP	STANDARD	2	21	C	4	GA	0.0808	0.0000	0.0054
GASEPF	APP	STANDARD	2	21	D	0	GA	0.4847	0.0000	0.0326
GASEPF	APP	STANDARD	2	21	D	1	GA	0.2983	0.0000	0.0201
GASEPF	APP	STANDARD	2	21	D	2	GA	0.2983	0.0000	0.0201
GASEPF	APP	STANDARD	2	21	D	3	GA	0.0808	0.0000	0.0054
GASEPF	APP	STANDARD	2	21	D	4	GA	0.0808	0.0000	0.0054
GASEPF	APP	STANDARD	2	21	E	0	GA	0.2424	0.0000	0.0163
GASEPF	APP	STANDARD	2	21	E	1	GA	0.1492	0.0000	0.0100
GASEPF	APP	STANDARD	2	21	E	2	GA	0.1492	0.0000	0.0100
GASEPF	APP	STANDARD	2	21	E	3	GA	0.0404	0.0000	0.0027
GASEPF	APP	STANDARD	2	21	E	4	GA	0.0404	0.0000	0.0027
GASEPF	DEP	STANDARD	1	03	A	0	GA	0.3328	0.0000	0.0224
GASEPF	DEP	STANDARD	1	03	A	1	GA	0.2497	0.0000	0.0168
GASEPF	DEP	STANDARD	1	03	A	2	GA	0.2497	0.0000	0.0168
GASEPF	DEP	STANDARD	1	03	A	3	GA	0.0999	0.0000	0.0067
GASEPF	DEP	STANDARD	1	03	A	4	GA	0.0999	0.0000	0.0067
GASEPF	DEP	STANDARD	1	03	A	5	GA	0.0166	0.0000	0.0011
GASEPF	DEP	STANDARD	1	03	A	6	GA	0.0166	0.0000	0.0011
GASEPF	DEP	STANDARD	1	03	B	0	GA	0.9984	0.0000	0.0672
GASEPF	DEP	STANDARD	1	03	B	1	GA	0.7491	0.0000	0.0504
GASEPF	DEP	STANDARD	1	03	B	2	GA	0.7491	0.0000	0.0504
GASEPF	DEP	STANDARD	1	03	B	3	GA	0.2998	0.0000	0.0202
GASEPF	DEP	STANDARD	1	03	B	4	GA	0.2998	0.0000	0.0202
GASEPF	DEP	STANDARD	1	03	B	5	GA	0.0499	0.0000	0.0034
GASEPF	DEP	STANDARD	1	03	B	6	GA	0.0499	0.0000	0.0034
GASEPF	DEP	STANDARD	1	03	C	0	GA	0.4155	0.0000	0.0280
GASEPF	DEP	STANDARD	1	03	C	1	GA	0.2557	0.0000	0.0172
GASEPF	DEP	STANDARD	1	03	C	2	GA	0.2557	0.0000	0.0172
GASEPF	DEP	STANDARD	1	03	C	3	GA	0.0692	0.0000	0.0047
GASEPF	DEP	STANDARD	1	03	C	4	GA	0.0692	0.0000	0.0047

GASEPF	DEP	STANDARD	1	21	A	0	GA	0.2424	0.0000	0.0163
GASEPF	DEP	STANDARD	1	21	A	1	GA	0.1492	0.0000	0.0100
GASEPF	DEP	STANDARD	1	21	A	2	GA	0.1492	0.0000	0.0100
GASEPF	DEP	STANDARD	1	21	A	3	GA	0.0404	0.0000	0.0027
GASEPF	DEP	STANDARD	1	21	A	4	GA	0.0404	0.0000	0.0027
GASEPF	DEP	STANDARD	1	21	B	0	GA	1.3983	0.0000	0.0941
GASEPF	DEP	STANDARD	1	21	B	1	GA	1.1186	0.0000	0.0753
GASEPF	DEP	STANDARD	1	21	B	2	GA	1.1186	0.0000	0.0753
GASEPF	DEP	STANDARD	1	21	B	3	GA	0.5034	0.0000	0.0339
GASEPF	DEP	STANDARD	1	21	B	4	GA	0.8390	0.0000	0.0565
GASEPF	DEP	STANDARD	1	21	B	5	GA	0.1678	0.0000	0.0113
GASEPF	DEP	STANDARD	1	21	B	6	GA	0.4474	0.0000	0.0301
GASEPF	DEP	STANDARD	1	21	C	0	GA	1.2118	0.0000	0.0816
GASEPF	DEP	STANDARD	1	21	C	1	GA	0.7458	0.0000	0.0502
GASEPF	DEP	STANDARD	1	21	C	2	GA	0.7458	0.0000	0.0502
GASEPF	DEP	STANDARD	1	21	C	3	GA	0.2020	0.0000	0.0136
GASEPF	DEP	STANDARD	1	21	C	4	GA	0.2020	0.0000	0.0136
GASEPF	DEP	STANDARD	1	21	D	0	GA	0.4847	0.0000	0.0326
GASEPF	DEP	STANDARD	1	21	D	1	GA	0.2983	0.0000	0.0201
GASEPF	DEP	STANDARD	1	21	D	2	GA	0.2983	0.0000	0.0201
GASEPF	DEP	STANDARD	1	21	D	3	GA	0.0808	0.0000	0.0054
GASEPF	DEP	STANDARD	1	21	D	4	GA	0.0808	0.0000	0.0054
GASEPF	DEP	STANDARD	1	21	E	0	GA	0.4847	0.0000	0.0326
GASEPF	DEP	STANDARD	1	21	E	1	GA	0.2983	0.0000	0.0201
GASEPF	DEP	STANDARD	1	21	E	2	GA	0.2983	0.0000	0.0201
GASEPF	DEP	STANDARD	1	21	E	3	GA	0.0808	0.0000	0.0054
GASEPF	DEP	STANDARD	1	21	E	4	GA	0.0808	0.0000	0.0054
GASEPF	DEP	STANDARD	1	21	F	0	GA	0.2424	0.0000	0.0163
GASEPF	DEP	STANDARD	1	21	F	1	GA	0.1492	0.0000	0.0100
GASEPF	DEP	STANDARD	1	21	F	2	GA	0.1492	0.0000	0.0100
GASEPF	DEP	STANDARD	1	21	F	3	GA	0.0404	0.0000	0.0027
GASEPF	DEP	STANDARD	1	21	F	4	GA	0.0404	0.0000	0.0027
GASEPF	TGO	STANDARD	1	03	A	0	GA	0.7107	0.0000	0.0454
GASEPF	TGO	STANDARD	1	03	A	1	GA	0.5332	0.0000	0.0340
GASEPF	TGO	STANDARD	1	03	A	2	GA	0.5332	0.0000	0.0340
GASEPF	TGO	STANDARD	1	03	A	3	GA	0.2134	0.0000	0.0136
GASEPF	TGO	STANDARD	1	03	A	4	GA	0.2134	0.0000	0.0136
GASEPF	TGO	STANDARD	1	03	A	5	GA	0.0355	0.0000	0.0023
GASEPF	TGO	STANDARD	1	03	A	6	GA	0.0355	0.0000	0.0023
GASEPF	TGO	STANDARD	1	21	A	0	GA	2.8427	0.0000	0.1814
GASEPF	TGO	STANDARD	1	21	A	1	GA	2.1330	0.0000	0.1361
GASEPF	TGO	STANDARD	1	21	A	2	GA	2.1330	0.0000	0.1361
GASEPF	TGO	STANDARD	1	21	A	3	GA	0.8536	0.0000	0.0545
GASEPF	TGO	STANDARD	1	21	A	4	GA	0.8536	0.0000	0.0545
GASEPF	TGO	STANDARD	1	21	A	5	GA	0.1420	0.0000	0.0091
GASEPF	TGO	STANDARD	1	21	A	6	GA	0.1420	0.0000	0.0091
GASEPV	APP	STANDARD	2	03	A	0	GA	0.3847	0.0000	0.0246
GASEPV	APP	STANDARD	2	03	A	1	GA	0.2367	0.0000	0.0151
GASEPV	APP	STANDARD	2	03	A	2	GA	0.2367	0.0000	0.0151
GASEPV	APP	STANDARD	2	03	A	3	GA	0.0641	0.0000	0.0041
GASEPV	APP	STANDARD	2	03	A	4	GA	0.0641	0.0000	0.0041
GASEPV	APP	STANDARD	2	03	B	0	GA	1.1541	0.0000	0.0737
GASEPV	APP	STANDARD	2	03	B	1	GA	0.7102	0.0000	0.0453
GASEPV	APP	STANDARD	2	03	B	2	GA	0.7102	0.0000	0.0453
GASEPV	APP	STANDARD	2	03	B	3	GA	0.1924	0.0000	0.0123
GASEPV	APP	STANDARD	2	03	B	4	GA	0.1924	0.0000	0.0123
GASEPV	APP	STANDARD	2	03	C	0	GA	0.3847	0.0000	0.0246

GASEPV	APP	STANDARD	2	03	C	1	GA	0.2367	0.0000	0.0151
GASEPV	APP	STANDARD	2	03	C	2	GA	0.2367	0.0000	0.0151
GASEPV	APP	STANDARD	2	03	C	3	GA	0.0641	0.0000	0.0041
GASEPV	APP	STANDARD	2	03	C	4	GA	0.0641	0.0000	0.0041
GASEPV	APP	STANDARD	2	21	A	0	GA	0.5393	0.0000	0.0344
GASEPV	APP	STANDARD	2	21	A	1	GA	0.4046	0.0000	0.0258
GASEPV	APP	STANDARD	2	21	A	2	GA	0.4046	0.0000	0.0258
GASEPV	APP	STANDARD	2	21	A	3	GA	0.1619	0.0000	0.0103
GASEPV	APP	STANDARD	2	21	A	4	GA	0.1619	0.0000	0.0103
GASEPV	APP	STANDARD	2	21	A	5	GA	0.0269	0.0000	0.0017
GASEPV	APP	STANDARD	2	21	A	6	GA	0.0269	0.0000	0.0017
GASEPV	APP	STANDARD	2	21	B	0	GA	2.6929	0.0000	0.1719
GASEPV	APP	STANDARD	2	21	B	1	GA	1.6572	0.0000	0.1058
GASEPV	APP	STANDARD	2	21	B	2	GA	1.6572	0.0000	0.1058
GASEPV	APP	STANDARD	2	21	B	3	GA	0.4488	0.0000	0.0286
GASEPV	APP	STANDARD	2	21	B	4	GA	0.4488	0.0000	0.0286
GASEPV	APP	STANDARD	2	21	C	0	GA	0.4488	0.0000	0.0287
GASEPV	APP	STANDARD	2	21	C	1	GA	0.2762	0.0000	0.0176
GASEPV	APP	STANDARD	2	21	C	2	GA	0.2762	0.0000	0.0176
GASEPV	APP	STANDARD	2	21	C	3	GA	0.0748	0.0000	0.0048
GASEPV	APP	STANDARD	2	21	C	4	GA	0.0748	0.0000	0.0048
GASEPV	APP	STANDARD	2	21	D	0	GA	0.4488	0.0000	0.0287
GASEPV	APP	STANDARD	2	21	D	1	GA	0.2762	0.0000	0.0176
GASEPV	APP	STANDARD	2	21	D	2	GA	0.2762	0.0000	0.0176
GASEPV	APP	STANDARD	2	21	D	3	GA	0.0748	0.0000	0.0048
GASEPV	APP	STANDARD	2	21	D	4	GA	0.0748	0.0000	0.0048
GASEPV	APP	STANDARD	2	21	E	0	GA	0.2244	0.0000	0.0143
GASEPV	APP	STANDARD	2	21	E	1	GA	0.1381	0.0000	0.0088
GASEPV	APP	STANDARD	2	21	E	2	GA	0.1381	0.0000	0.0088
GASEPV	APP	STANDARD	2	21	E	3	GA	0.0374	0.0000	0.0024
GASEPV	APP	STANDARD	2	21	E	4	GA	0.0374	0.0000	0.0024
GASEPV	DEP	STANDARD	1	03	A	0	GA	0.3082	0.0000	0.0197
GASEPV	DEP	STANDARD	1	03	A	1	GA	0.2312	0.0000	0.0148
GASEPV	DEP	STANDARD	1	03	A	2	GA	0.2312	0.0000	0.0148
GASEPV	DEP	STANDARD	1	03	A	3	GA	0.0925	0.0000	0.0059
GASEPV	DEP	STANDARD	1	03	A	4	GA	0.0925	0.0000	0.0059
GASEPV	DEP	STANDARD	1	03	A	5	GA	0.0154	0.0000	0.0010
GASEPV	DEP	STANDARD	1	03	A	6	GA	0.0154	0.0000	0.0010
GASEPV	DEP	STANDARD	1	03	B	0	GA	0.9245	0.0000	0.0590
GASEPV	DEP	STANDARD	1	03	B	1	GA	0.6937	0.0000	0.0443
GASEPV	DEP	STANDARD	1	03	B	2	GA	0.6937	0.0000	0.0443
GASEPV	DEP	STANDARD	1	03	B	3	GA	0.2776	0.0000	0.0177
GASEPV	DEP	STANDARD	1	03	B	4	GA	0.2776	0.0000	0.0177
GASEPV	DEP	STANDARD	1	03	B	5	GA	0.0462	0.0000	0.0029
GASEPV	DEP	STANDARD	1	03	B	6	GA	0.0462	0.0000	0.0029
GASEPV	DEP	STANDARD	1	03	C	0	GA	0.3847	0.0000	0.0246
GASEPV	DEP	STANDARD	1	03	C	1	GA	0.2367	0.0000	0.0151
GASEPV	DEP	STANDARD	1	03	C	2	GA	0.2367	0.0000	0.0151
GASEPV	DEP	STANDARD	1	03	C	3	GA	0.0641	0.0000	0.0041
GASEPV	DEP	STANDARD	1	03	C	4	GA	0.0641	0.0000	0.0041
GASEPV	DEP	STANDARD	1	21	A	0	GA	0.2244	0.0000	0.0143
GASEPV	DEP	STANDARD	1	21	A	1	GA	0.1381	0.0000	0.0088
GASEPV	DEP	STANDARD	1	21	A	2	GA	0.1381	0.0000	0.0088
GASEPV	DEP	STANDARD	1	21	A	3	GA	0.0374	0.0000	0.0024
GASEPV	DEP	STANDARD	1	21	A	4	GA	0.0374	0.0000	0.0024
GASEPV	DEP	STANDARD	1	21	B	0	GA	1.2947	0.0000	0.0826
GASEPV	DEP	STANDARD	1	21	B	1	GA	1.0357	0.0000	0.0661

GASEPV	DEP	STANDARD	1	21	B	2	GA	1.0357	0.0000	0.0661
GASEPV	DEP	STANDARD	1	21	B	3	GA	0.4661	0.0000	0.0298
GASEPV	DEP	STANDARD	1	21	B	4	GA	0.7768	0.0000	0.0496
GASEPV	DEP	STANDARD	1	21	B	5	GA	0.1554	0.0000	0.0099
GASEPV	DEP	STANDARD	1	21	B	6	GA	0.4143	0.0000	0.0264
GASEPV	DEP	STANDARD	1	21	C	0	GA	1.1221	0.0000	0.0716
GASEPV	DEP	STANDARD	1	21	C	1	GA	0.6905	0.0000	0.0441
GASEPV	DEP	STANDARD	1	21	C	2	GA	0.6905	0.0000	0.0441
GASEPV	DEP	STANDARD	1	21	C	3	GA	0.1870	0.0000	0.0119
GASEPV	DEP	STANDARD	1	21	C	4	GA	0.1870	0.0000	0.0119
GASEPV	DEP	STANDARD	1	21	D	0	GA	0.4488	0.0000	0.0287
GASEPV	DEP	STANDARD	1	21	D	1	GA	0.2762	0.0000	0.0176
GASEPV	DEP	STANDARD	1	21	D	2	GA	0.2762	0.0000	0.0176
GASEPV	DEP	STANDARD	1	21	D	3	GA	0.0748	0.0000	0.0048
GASEPV	DEP	STANDARD	1	21	D	4	GA	0.0748	0.0000	0.0048
GASEPV	DEP	STANDARD	1	21	E	0	GA	0.4488	0.0000	0.0287
GASEPV	DEP	STANDARD	1	21	E	1	GA	0.2762	0.0000	0.0176
GASEPV	DEP	STANDARD	1	21	E	2	GA	0.2762	0.0000	0.0176
GASEPV	DEP	STANDARD	1	21	E	3	GA	0.0748	0.0000	0.0048
GASEPV	DEP	STANDARD	1	21	E	4	GA	0.0748	0.0000	0.0048
GASEPV	DEP	STANDARD	1	21	F	0	GA	0.2244	0.0000	0.0143
GASEPV	DEP	STANDARD	1	21	F	1	GA	0.1381	0.0000	0.0088
GASEPV	DEP	STANDARD	1	21	F	2	GA	0.1381	0.0000	0.0088
GASEPV	DEP	STANDARD	1	21	F	3	GA	0.0374	0.0000	0.0024
GASEPV	DEP	STANDARD	1	21	F	4	GA	0.0374	0.0000	0.0024
GASEPV	TGO	STANDARD	1	03	A	0	GA	0.7107	0.0000	0.0454
GASEPV	TGO	STANDARD	1	03	A	1	GA	0.5332	0.0000	0.0340
GASEPV	TGO	STANDARD	1	03	A	2	GA	0.5332	0.0000	0.0340
GASEPV	TGO	STANDARD	1	03	A	3	GA	0.2134	0.0000	0.0136
GASEPV	TGO	STANDARD	1	03	A	4	GA	0.2134	0.0000	0.0136
GASEPV	TGO	STANDARD	1	03	A	5	GA	0.0355	0.0000	0.0023
GASEPV	TGO	STANDARD	1	03	A	6	GA	0.0355	0.0000	0.0023
GASEPV	TGO	STANDARD	1	21	A	0	GA	2.8427	0.0000	0.1814
GASEPV	TGO	STANDARD	1	21	A	1	GA	2.1330	0.0000	0.1361
GASEPV	TGO	STANDARD	1	21	A	2	GA	2.1330	0.0000	0.1361
GASEPV	TGO	STANDARD	1	21	A	3	GA	0.8536	0.0000	0.0545
GASEPV	TGO	STANDARD	1	21	A	4	GA	0.8536	0.0000	0.0545
GASEPV	TGO	STANDARD	1	21	A	5	GA	0.1420	0.0000	0.0091
GASEPV	TGO	STANDARD	1	21	A	6	GA	0.1420	0.0000	0.0091
GV	APP	STANDARD	1	03	A	0	GA	0.0051	0.0000	0.0002
GV	APP	STANDARD	1	03	A	1	GA	0.0032	0.0000	0.0001
GV	APP	STANDARD	1	03	A	2	GA	0.0032	0.0000	0.0001
GV	APP	STANDARD	1	03	A	3	GA	0.0009	0.0000	0.0000
GV	APP	STANDARD	1	03	A	4	GA	0.0009	0.0000	0.0000
GV	APP	STANDARD	1	03	B	0	GA	0.0154	0.0000	0.0006
GV	APP	STANDARD	1	03	B	1	GA	0.0095	0.0000	0.0004
GV	APP	STANDARD	1	03	B	2	GA	0.0095	0.0000	0.0004
GV	APP	STANDARD	1	03	B	3	GA	0.0026	0.0000	0.0001
GV	APP	STANDARD	1	03	B	4	GA	0.0026	0.0000	0.0001
GV	APP	STANDARD	1	03	C	0	GA	0.0051	0.0000	0.0002
GV	APP	STANDARD	1	03	C	1	GA	0.0032	0.0000	0.0001
GV	APP	STANDARD	1	03	C	2	GA	0.0032	0.0000	0.0001
GV	APP	STANDARD	1	03	C	3	GA	0.0009	0.0000	0.0000
GV	APP	STANDARD	1	03	C	4	GA	0.0009	0.0000	0.0000
GV	APP	STANDARD	1	21	A	0	GA	0.0240	0.0000	0.0010
GV	APP	STANDARD	1	21	A	1	GA	0.0180	0.0000	0.0008
GV	APP	STANDARD	1	21	A	2	GA	0.0180	0.0000	0.0008

GV	APP	STANDARD	1	21	A	3	GA	0.0072	0.0000	0.0003
GV	APP	STANDARD	1	21	A	4	GA	0.0072	0.0000	0.0003
GV	APP	STANDARD	1	21	A	5	GA	0.0012	0.0000	0.0000
GV	APP	STANDARD	1	21	A	6	GA	0.0012	0.0000	0.0000
GV	APP	STANDARD	1	21	B	0	GA	0.0210	0.0000	0.0009
GV	APP	STANDARD	1	21	B	1	GA	0.0129	0.0000	0.0005
GV	APP	STANDARD	1	21	B	2	GA	0.0129	0.0000	0.0005
GV	APP	STANDARD	1	21	B	3	GA	0.0035	0.0000	0.0001
GV	APP	STANDARD	1	21	B	4	GA	0.0035	0.0000	0.0001
GV	APP	STANDARD	1	21	C	0	GA	0.0030	0.0000	0.0001
GV	APP	STANDARD	1	21	C	1	GA	0.0018	0.0000	0.0001
GV	APP	STANDARD	1	21	C	2	GA	0.0018	0.0000	0.0001
GV	APP	STANDARD	1	21	C	3	GA	0.0005	0.0000	0.0000
GV	APP	STANDARD	1	21	C	4	GA	0.0005	0.0000	0.0000
GV	APP	STANDARD	1	21	D	0	GA	0.0030	0.0000	0.0001
GV	APP	STANDARD	1	21	D	1	GA	0.0018	0.0000	0.0001
GV	APP	STANDARD	1	21	D	2	GA	0.0018	0.0000	0.0001
GV	APP	STANDARD	1	21	D	3	GA	0.0005	0.0000	0.0000
GV	APP	STANDARD	1	21	D	4	GA	0.0005	0.0000	0.0000
GV	APP	STANDARD	1	21	E	0	GA	0.0030	0.0000	0.0001
GV	APP	STANDARD	1	21	E	1	GA	0.0018	0.0000	0.0001
GV	APP	STANDARD	1	21	E	2	GA	0.0018	0.0000	0.0001
GV	APP	STANDARD	1	21	E	3	GA	0.0005	0.0000	0.0000
GV	APP	STANDARD	1	21	E	4	GA	0.0005	0.0000	0.0000
GV	DEP	STANDARD	1	03	A	0	GA	0.0062	0.0000	0.0002
GV	DEP	STANDARD	1	03	A	1	GA	0.0046	0.0000	0.0002
GV	DEP	STANDARD	1	03	A	2	GA	0.0046	0.0000	0.0002
GV	DEP	STANDARD	1	03	A	3	GA	0.0019	0.0000	0.0001
GV	DEP	STANDARD	1	03	A	4	GA	0.0019	0.0000	0.0001
GV	DEP	STANDARD	1	03	A	5	GA	0.0003	0.0000	0.0000
GV	DEP	STANDARD	1	03	A	6	GA	0.0003	0.0000	0.0000
GV	DEP	STANDARD	1	03	B	0	GA	0.0123	0.0000	0.0005
GV	DEP	STANDARD	1	03	B	1	GA	0.0093	0.0000	0.0004
GV	DEP	STANDARD	1	03	B	2	GA	0.0093	0.0000	0.0004
GV	DEP	STANDARD	1	03	B	3	GA	0.0037	0.0000	0.0002
GV	DEP	STANDARD	1	03	B	4	GA	0.0037	0.0000	0.0002
GV	DEP	STANDARD	1	03	B	5	GA	0.0006	0.0000	0.0000
GV	DEP	STANDARD	1	03	B	6	GA	0.0006	0.0000	0.0000
GV	DEP	STANDARD	1	03	C	0	GA	0.0026	0.0000	0.0001
GV	DEP	STANDARD	1	03	C	1	GA	0.0016	0.0000	0.0001
GV	DEP	STANDARD	1	03	C	2	GA	0.0016	0.0000	0.0001
GV	DEP	STANDARD	1	03	C	3	GA	0.0004	0.0000	0.0000
GV	DEP	STANDARD	1	03	C	4	GA	0.0004	0.0000	0.0000
GV	DEP	STANDARD	1	21	A	0	GA	0.0030	0.0000	0.0001
GV	DEP	STANDARD	1	21	A	1	GA	0.0018	0.0000	0.0001
GV	DEP	STANDARD	1	21	A	2	GA	0.0018	0.0000	0.0001
GV	DEP	STANDARD	1	21	A	3	GA	0.0005	0.0000	0.0000
GV	DEP	STANDARD	1	21	A	4	GA	0.0005	0.0000	0.0000
GV	DEP	STANDARD	1	21	B	0	GA	0.0058	0.0000	0.0003
GV	DEP	STANDARD	1	21	B	1	GA	0.0046	0.0000	0.0002
GV	DEP	STANDARD	1	21	B	2	GA	0.0046	0.0000	0.0002
GV	DEP	STANDARD	1	21	B	3	GA	0.0021	0.0000	0.0001
GV	DEP	STANDARD	1	21	B	4	GA	0.0035	0.0000	0.0002
GV	DEP	STANDARD	1	21	B	5	GA	0.0007	0.0000	0.0000
GV	DEP	STANDARD	1	21	B	6	GA	0.0018	0.0000	0.0001
GV	DEP	STANDARD	1	21	C	0	GA	0.0024	0.0000	0.0001
GV	DEP	STANDARD	1	21	C	1	GA	0.0015	0.0000	0.0001

GV	DEP	STANDARD	1	21	C	2	GA	0.0015	0.0000	0.0001
GV	DEP	STANDARD	1	21	C	3	GA	0.0004	0.0000	0.0000
GV	DEP	STANDARD	1	21	C	4	GA	0.0004	0.0000	0.0000
GV	DEP	STANDARD	1	21	D	0	GA	0.0018	0.0000	0.0001
GV	DEP	STANDARD	1	21	D	1	GA	0.0011	0.0000	0.0000
GV	DEP	STANDARD	1	21	D	2	GA	0.0011	0.0000	0.0000
GV	DEP	STANDARD	1	21	D	3	GA	0.0003	0.0000	0.0000
GV	DEP	STANDARD	1	21	D	4	GA	0.0003	0.0000	0.0000
GV	DEP	STANDARD	1	21	E	0	GA	0.0018	0.0000	0.0001
GV	DEP	STANDARD	1	21	E	1	GA	0.0011	0.0000	0.0000
GV	DEP	STANDARD	1	21	E	2	GA	0.0011	0.0000	0.0000
GV	DEP	STANDARD	1	21	E	3	GA	0.0003	0.0000	0.0000
GV	DEP	STANDARD	1	21	E	4	GA	0.0003	0.0000	0.0000
GV	DEP	STANDARD	1	21	F	0	GA	0.0420	0.0000	0.0018
GV	DEP	STANDARD	1	21	F	1	GA	0.0258	0.0000	0.0011
GV	DEP	STANDARD	1	21	F	2	GA	0.0258	0.0000	0.0011
GV	DEP	STANDARD	1	21	F	3	GA	0.0070	0.0000	0.0003
GV	DEP	STANDARD	1	21	F	4	GA	0.0070	0.0000	0.0003
HS748A	APP	STANDARD	1	03	A	0	COM	0.0035	0.0000	0.0006
HS748A	APP	STANDARD	1	03	A	1	COM	0.0022	0.0000	0.0004
HS748A	APP	STANDARD	1	03	A	2	COM	0.0022	0.0000	0.0004
HS748A	APP	STANDARD	1	03	A	3	COM	0.0006	0.0000	0.0001
HS748A	APP	STANDARD	1	03	A	4	COM	0.0006	0.0000	0.0001
HS748A	APP	STANDARD	1	03	B	0	COM	0.0106	0.0000	0.0019
HS748A	APP	STANDARD	1	03	B	1	COM	0.0065	0.0000	0.0012
HS748A	APP	STANDARD	1	03	B	2	COM	0.0065	0.0000	0.0012
HS748A	APP	STANDARD	1	03	B	3	COM	0.0018	0.0000	0.0003
HS748A	APP	STANDARD	1	03	B	4	COM	0.0018	0.0000	0.0003
HS748A	APP	STANDARD	1	03	C	0	COM	0.0035	0.0000	0.0006
HS748A	APP	STANDARD	1	03	C	1	COM	0.0022	0.0000	0.0004
HS748A	APP	STANDARD	1	03	C	2	COM	0.0022	0.0000	0.0004
HS748A	APP	STANDARD	1	03	C	3	COM	0.0006	0.0000	0.0001
HS748A	APP	STANDARD	1	03	C	4	COM	0.0006	0.0000	0.0001
HS748A	APP	STANDARD	1	21	A	0	COM	0.0166	0.0000	0.0029
HS748A	APP	STANDARD	1	21	A	1	COM	0.0124	0.0000	0.0022
HS748A	APP	STANDARD	1	21	A	2	COM	0.0124	0.0000	0.0022
HS748A	APP	STANDARD	1	21	A	3	COM	0.0050	0.0000	0.0009
HS748A	APP	STANDARD	1	21	A	4	COM	0.0050	0.0000	0.0009
HS748A	APP	STANDARD	1	21	A	5	COM	0.0008	0.0000	0.0001
HS748A	APP	STANDARD	1	21	A	6	COM	0.0008	0.0000	0.0001
HS748A	APP	STANDARD	1	21	B	0	COM	0.0145	0.0000	0.0025
HS748A	APP	STANDARD	1	21	B	1	COM	0.0089	0.0000	0.0016
HS748A	APP	STANDARD	1	21	B	2	COM	0.0089	0.0000	0.0016
HS748A	APP	STANDARD	1	21	B	3	COM	0.0024	0.0000	0.0004
HS748A	APP	STANDARD	1	21	B	4	COM	0.0024	0.0000	0.0004
HS748A	APP	STANDARD	1	21	C	0	COM	0.0021	0.0000	0.0004
HS748A	APP	STANDARD	1	21	C	1	COM	0.0013	0.0000	0.0002
HS748A	APP	STANDARD	1	21	C	2	COM	0.0013	0.0000	0.0002
HS748A	APP	STANDARD	1	21	C	3	COM	0.0003	0.0000	0.0001
HS748A	APP	STANDARD	1	21	C	4	COM	0.0003	0.0000	0.0001
HS748A	APP	STANDARD	1	21	D	0	COM	0.0021	0.0000	0.0004
HS748A	APP	STANDARD	1	21	D	1	COM	0.0013	0.0000	0.0002
HS748A	APP	STANDARD	1	21	D	2	COM	0.0013	0.0000	0.0002
HS748A	APP	STANDARD	1	21	D	3	COM	0.0003	0.0000	0.0001
HS748A	APP	STANDARD	1	21	D	4	COM	0.0003	0.0000	0.0001
HS748A	APP	STANDARD	1	21	E	0	COM	0.0021	0.0000	0.0004
HS748A	APP	STANDARD	1	21	E	1	COM	0.0013	0.0000	0.0002

HS748A	APP	STANDARD	1	21	E	2	COM	0.0013	0.0000	0.0002
HS748A	APP	STANDARD	1	21	E	3	COM	0.0003	0.0000	0.0001
HS748A	APP	STANDARD	1	21	E	4	COM	0.0003	0.0000	0.0001
HS748A	DEP	STANDARD	1	03	A	0	COM	0.0042	0.0000	0.0007
HS748A	DEP	STANDARD	1	03	A	1	COM	0.0032	0.0000	0.0006
HS748A	DEP	STANDARD	1	03	A	2	COM	0.0032	0.0000	0.0006
HS748A	DEP	STANDARD	1	03	A	3	COM	0.0013	0.0000	0.0002
HS748A	DEP	STANDARD	1	03	A	4	COM	0.0013	0.0000	0.0002
HS748A	DEP	STANDARD	1	03	A	5	COM	0.0002	0.0000	0.0000
HS748A	DEP	STANDARD	1	03	A	6	COM	0.0002	0.0000	0.0000
HS748A	DEP	STANDARD	1	03	B	0	COM	0.0085	0.0000	0.0015
HS748A	DEP	STANDARD	1	03	B	1	COM	0.0064	0.0000	0.0011
HS748A	DEP	STANDARD	1	03	B	2	COM	0.0064	0.0000	0.0011
HS748A	DEP	STANDARD	1	03	B	3	COM	0.0026	0.0000	0.0005
HS748A	DEP	STANDARD	1	03	B	4	COM	0.0026	0.0000	0.0005
HS748A	DEP	STANDARD	1	03	B	5	COM	0.0004	0.0000	0.0001
HS748A	DEP	STANDARD	1	03	B	6	COM	0.0004	0.0000	0.0001
HS748A	DEP	STANDARD	1	03	C	0	COM	0.0018	0.0000	0.0003
HS748A	DEP	STANDARD	1	03	C	1	COM	0.0011	0.0000	0.0002
HS748A	DEP	STANDARD	1	03	C	2	COM	0.0011	0.0000	0.0002
HS748A	DEP	STANDARD	1	03	C	3	COM	0.0003	0.0000	0.0001
HS748A	DEP	STANDARD	1	03	C	4	COM	0.0003	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	A	0	COM	0.0021	0.0000	0.0004
HS748A	DEP	STANDARD	1	21	A	1	COM	0.0013	0.0000	0.0002
HS748A	DEP	STANDARD	1	21	A	2	COM	0.0013	0.0000	0.0002
HS748A	DEP	STANDARD	1	21	A	3	COM	0.0003	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	A	4	COM	0.0003	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	B	0	COM	0.0040	0.0000	0.0007
HS748A	DEP	STANDARD	1	21	B	1	COM	0.0032	0.0000	0.0006
HS748A	DEP	STANDARD	1	21	B	2	COM	0.0032	0.0000	0.0006
HS748A	DEP	STANDARD	1	21	B	3	COM	0.0014	0.0000	0.0003
HS748A	DEP	STANDARD	1	21	B	4	COM	0.0024	0.0000	0.0004
HS748A	DEP	STANDARD	1	21	B	5	COM	0.0005	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	B	6	COM	0.0013	0.0000	0.0002
HS748A	DEP	STANDARD	1	21	C	0	COM	0.0016	0.0000	0.0003
HS748A	DEP	STANDARD	1	21	C	1	COM	0.0010	0.0000	0.0002
HS748A	DEP	STANDARD	1	21	C	2	COM	0.0010	0.0000	0.0002
HS748A	DEP	STANDARD	1	21	C	3	COM	0.0003	0.0000	0.0000
HS748A	DEP	STANDARD	1	21	C	4	COM	0.0003	0.0000	0.0000
HS748A	DEP	STANDARD	1	21	D	0	COM	0.0012	0.0000	0.0002
HS748A	DEP	STANDARD	1	21	D	1	COM	0.0008	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	D	2	COM	0.0008	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	D	3	COM	0.0002	0.0000	0.0000
HS748A	DEP	STANDARD	1	21	D	4	COM	0.0002	0.0000	0.0000
HS748A	DEP	STANDARD	1	21	E	0	COM	0.0012	0.0000	0.0002
HS748A	DEP	STANDARD	1	21	E	1	COM	0.0008	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	E	2	COM	0.0008	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	E	3	COM	0.0002	0.0000	0.0000
HS748A	DEP	STANDARD	1	21	E	4	COM	0.0002	0.0000	0.0000
HS748A	DEP	STANDARD	1	21	F	0	COM	0.0289	0.0000	0.0051
HS748A	DEP	STANDARD	1	21	F	1	COM	0.0178	0.0000	0.0031
HS748A	DEP	STANDARD	1	21	F	2	COM	0.0178	0.0000	0.0031
HS748A	DEP	STANDARD	1	21	F	3	COM	0.0048	0.0000	0.0009
HS748A	DEP	STANDARD	1	21	F	4	COM	0.0048	0.0000	0.0009
LEAR25	APP	STANDARD	1	03	A	0	GA	0.0308	0.0000	0.0013
LEAR25	APP	STANDARD	1	03	A	1	GA	0.0189	0.0000	0.0008
LEAR25	APP	STANDARD	1	03	A	2	GA	0.0189	0.0000	0.0008

LEAR25	APP	STANDARD	1	03	A	3	GA	0.0051	0.0000	0.0002
LEAR25	APP	STANDARD	1	03	A	4	GA	0.0051	0.0000	0.0002
LEAR25	APP	STANDARD	1	03	B	0	GA	0.0923	0.0000	0.0039
LEAR25	APP	STANDARD	1	03	B	1	GA	0.0568	0.0000	0.0024
LEAR25	APP	STANDARD	1	03	B	2	GA	0.0568	0.0000	0.0024
LEAR25	APP	STANDARD	1	03	B	3	GA	0.0154	0.0000	0.0006
LEAR25	APP	STANDARD	1	03	B	4	GA	0.0154	0.0000	0.0006
LEAR25	APP	STANDARD	1	03	C	0	GA	0.0308	0.0000	0.0013
LEAR25	APP	STANDARD	1	03	C	1	GA	0.0189	0.0000	0.0008
LEAR25	APP	STANDARD	1	03	C	2	GA	0.0189	0.0000	0.0008
LEAR25	APP	STANDARD	1	03	C	3	GA	0.0051	0.0000	0.0002
LEAR25	APP	STANDARD	1	03	C	4	GA	0.0051	0.0000	0.0002
LEAR25	APP	STANDARD	1	21	A	0	GA	0.1438	0.0000	0.0060
LEAR25	APP	STANDARD	1	21	A	1	GA	0.1079	0.0000	0.0045
LEAR25	APP	STANDARD	1	21	A	2	GA	0.1079	0.0000	0.0045
LEAR25	APP	STANDARD	1	21	A	3	GA	0.0432	0.0000	0.0018
LEAR25	APP	STANDARD	1	21	A	4	GA	0.0432	0.0000	0.0018
LEAR25	APP	STANDARD	1	21	A	5	GA	0.0072	0.0000	0.0003
LEAR25	APP	STANDARD	1	21	A	6	GA	0.0072	0.0000	0.0003
LEAR25	APP	STANDARD	1	21	B	0	GA	0.1257	0.0000	0.0052
LEAR25	APP	STANDARD	1	21	B	1	GA	0.0773	0.0000	0.0032
LEAR25	APP	STANDARD	1	21	B	2	GA	0.0773	0.0000	0.0032
LEAR25	APP	STANDARD	1	21	B	3	GA	0.0209	0.0000	0.0009
LEAR25	APP	STANDARD	1	21	B	4	GA	0.0209	0.0000	0.0009
LEAR25	APP	STANDARD	1	21	C	0	GA	0.0179	0.0000	0.0007
LEAR25	APP	STANDARD	1	21	C	1	GA	0.0110	0.0000	0.0005
LEAR25	APP	STANDARD	1	21	C	2	GA	0.0110	0.0000	0.0005
LEAR25	APP	STANDARD	1	21	C	3	GA	0.0030	0.0000	0.0001
LEAR25	APP	STANDARD	1	21	C	4	GA	0.0030	0.0000	0.0001
LEAR25	APP	STANDARD	1	21	D	0	GA	0.0179	0.0000	0.0007
LEAR25	APP	STANDARD	1	21	D	1	GA	0.0110	0.0000	0.0005
LEAR25	APP	STANDARD	1	21	D	2	GA	0.0110	0.0000	0.0005
LEAR25	APP	STANDARD	1	21	D	3	GA	0.0030	0.0000	0.0001
LEAR25	APP	STANDARD	1	21	D	4	GA	0.0030	0.0000	0.0001
LEAR25	APP	STANDARD	1	21	E	0	GA	0.0179	0.0000	0.0007
LEAR25	APP	STANDARD	1	21	E	1	GA	0.0110	0.0000	0.0005
LEAR25	APP	STANDARD	1	21	E	2	GA	0.0110	0.0000	0.0005
LEAR25	APP	STANDARD	1	21	E	3	GA	0.0030	0.0000	0.0001
LEAR25	APP	STANDARD	1	21	E	4	GA	0.0030	0.0000	0.0001
LEAR25	DEP	STANDARD	1	03	A	0	GA	0.0370	0.0000	0.0015
LEAR25	DEP	STANDARD	1	03	A	1	GA	0.0278	0.0000	0.0011
LEAR25	DEP	STANDARD	1	03	A	2	GA	0.0278	0.0000	0.0011
LEAR25	DEP	STANDARD	1	03	A	3	GA	0.0111	0.0000	0.0005
LEAR25	DEP	STANDARD	1	03	A	4	GA	0.0111	0.0000	0.0005
LEAR25	DEP	STANDARD	1	03	A	5	GA	0.0018	0.0000	0.0001
LEAR25	DEP	STANDARD	1	03	A	6	GA	0.0018	0.0000	0.0001
LEAR25	DEP	STANDARD	1	03	B	0	GA	0.0739	0.0000	0.0031
LEAR25	DEP	STANDARD	1	03	B	1	GA	0.0555	0.0000	0.0023
LEAR25	DEP	STANDARD	1	03	B	2	GA	0.0555	0.0000	0.0023
LEAR25	DEP	STANDARD	1	03	B	3	GA	0.0222	0.0000	0.0009
LEAR25	DEP	STANDARD	1	03	B	4	GA	0.0222	0.0000	0.0009
LEAR25	DEP	STANDARD	1	03	B	5	GA	0.0037	0.0000	0.0002
LEAR25	DEP	STANDARD	1	03	B	6	GA	0.0037	0.0000	0.0002
LEAR25	DEP	STANDARD	1	03	C	0	GA	0.0154	0.0000	0.0006
LEAR25	DEP	STANDARD	1	03	C	1	GA	0.0095	0.0000	0.0004
LEAR25	DEP	STANDARD	1	03	C	2	GA	0.0095	0.0000	0.0004
LEAR25	DEP	STANDARD	1	03	C	3	GA	0.0026	0.0000	0.0001

LEAR25	DEP	STANDARD	1	03	C	4	GA	0.0026	0.0000	0.0001
LEAR25	DEP	STANDARD	1	21	B	0	GA	0.0345	0.0000	0.0014
LEAR25	DEP	STANDARD	1	21	B	1	GA	0.0276	0.0000	0.0012
LEAR25	DEP	STANDARD	1	21	B	2	GA	0.0276	0.0000	0.0012
LEAR25	DEP	STANDARD	1	21	B	3	GA	0.0124	0.0000	0.0005
LEAR25	DEP	STANDARD	1	21	B	4	GA	0.0207	0.0000	0.0009
LEAR25	DEP	STANDARD	1	21	B	5	GA	0.0041	0.0000	0.0002
LEAR25	DEP	STANDARD	1	21	B	6	GA	0.0110	0.0000	0.0005
LEAR25	DEP	STANDARD	1	21	F	0	GA	0.3052	0.0000	0.0127
LEAR25	DEP	STANDARD	1	21	F	1	GA	0.1878	0.0000	0.0078
LEAR25	DEP	STANDARD	1	21	F	2	GA	0.1878	0.0000	0.0078
LEAR25	DEP	STANDARD	1	21	F	3	GA	0.0509	0.0000	0.0021
LEAR25	DEP	STANDARD	1	21	F	4	GA	0.0509	0.0000	0.0021
LEAR35	APP	STANDARD	1	03	A	0	GA	0.0392	0.0000	0.0035
LEAR35	APP	STANDARD	1	03	A	1	GA	0.0241	0.0000	0.0022
LEAR35	APP	STANDARD	1	03	A	2	GA	0.0241	0.0000	0.0022
LEAR35	APP	STANDARD	1	03	A	3	GA	0.0065	0.0000	0.0006
LEAR35	APP	STANDARD	1	03	A	4	GA	0.0065	0.0000	0.0006
LEAR35	APP	STANDARD	1	03	B	0	GA	0.1177	0.0000	0.0105
LEAR35	APP	STANDARD	1	03	B	1	GA	0.0724	0.0000	0.0065
LEAR35	APP	STANDARD	1	03	B	2	GA	0.0724	0.0000	0.0065
LEAR35	APP	STANDARD	1	03	B	3	GA	0.0196	0.0000	0.0018
LEAR35	APP	STANDARD	1	03	B	4	GA	0.0196	0.0000	0.0018
LEAR35	APP	STANDARD	1	03	C	0	GA	0.0392	0.0000	0.0035
LEAR35	APP	STANDARD	1	03	C	1	GA	0.0241	0.0000	0.0022
LEAR35	APP	STANDARD	1	03	C	2	GA	0.0241	0.0000	0.0022
LEAR35	APP	STANDARD	1	03	C	3	GA	0.0065	0.0000	0.0006
LEAR35	APP	STANDARD	1	03	C	4	GA	0.0065	0.0000	0.0006
LEAR35	APP	STANDARD	1	21	A	0	GA	0.1833	0.0000	0.0164
LEAR35	APP	STANDARD	1	21	A	1	GA	0.1375	0.0000	0.0123
LEAR35	APP	STANDARD	1	21	A	2	GA	0.1375	0.0000	0.0123
LEAR35	APP	STANDARD	1	21	A	3	GA	0.0550	0.0000	0.0049
LEAR35	APP	STANDARD	1	21	A	4	GA	0.0550	0.0000	0.0049
LEAR35	APP	STANDARD	1	21	A	5	GA	0.0092	0.0000	0.0008
LEAR35	APP	STANDARD	1	21	A	6	GA	0.0092	0.0000	0.0008
LEAR35	APP	STANDARD	1	21	B	0	GA	0.1602	0.0000	0.0143
LEAR35	APP	STANDARD	1	21	B	1	GA	0.0986	0.0000	0.0088
LEAR35	APP	STANDARD	1	21	B	2	GA	0.0986	0.0000	0.0088
LEAR35	APP	STANDARD	1	21	B	3	GA	0.0267	0.0000	0.0024
LEAR35	APP	STANDARD	1	21	B	4	GA	0.0267	0.0000	0.0024
LEAR35	APP	STANDARD	1	21	C	0	GA	0.0229	0.0000	0.0020
LEAR35	APP	STANDARD	1	21	C	1	GA	0.0141	0.0000	0.0012
LEAR35	APP	STANDARD	1	21	C	2	GA	0.0141	0.0000	0.0012
LEAR35	APP	STANDARD	1	21	C	3	GA	0.0038	0.0000	0.0003
LEAR35	APP	STANDARD	1	21	C	4	GA	0.0038	0.0000	0.0003
LEAR35	APP	STANDARD	1	21	D	0	GA	0.0229	0.0000	0.0020
LEAR35	APP	STANDARD	1	21	D	1	GA	0.0141	0.0000	0.0012
LEAR35	APP	STANDARD	1	21	D	2	GA	0.0141	0.0000	0.0012
LEAR35	APP	STANDARD	1	21	D	3	GA	0.0038	0.0000	0.0003
LEAR35	APP	STANDARD	1	21	D	4	GA	0.0038	0.0000	0.0003
LEAR35	APP	STANDARD	1	21	E	0	GA	0.0229	0.0000	0.0020
LEAR35	APP	STANDARD	1	21	E	1	GA	0.0141	0.0000	0.0012
LEAR35	APP	STANDARD	1	21	E	2	GA	0.0141	0.0000	0.0012
LEAR35	APP	STANDARD	1	21	E	3	GA	0.0038	0.0000	0.0003
LEAR35	APP	STANDARD	1	21	E	4	GA	0.0038	0.0000	0.0003
LEAR35	DEP	STANDARD	1	03	A	0	GA	0.0471	0.0000	0.0042
LEAR35	DEP	STANDARD	1	03	A	1	GA	0.0354	0.0000	0.0032

LEAR35	DEP	STANDARD	1	03	A	2	GA	0.0354	0.0000	0.0032
LEAR35	DEP	STANDARD	1	03	A	3	GA	0.0142	0.0000	0.0013
LEAR35	DEP	STANDARD	1	03	A	4	GA	0.0142	0.0000	0.0013
LEAR35	DEP	STANDARD	1	03	A	5	GA	0.0024	0.0000	0.0002
LEAR35	DEP	STANDARD	1	03	A	6	GA	0.0024	0.0000	0.0002
LEAR35	DEP	STANDARD	1	03	B	0	GA	0.0943	0.0000	0.0084
LEAR35	DEP	STANDARD	1	03	B	1	GA	0.0707	0.0000	0.0063
LEAR35	DEP	STANDARD	1	03	B	2	GA	0.0707	0.0000	0.0063
LEAR35	DEP	STANDARD	1	03	B	3	GA	0.0283	0.0000	0.0025
LEAR35	DEP	STANDARD	1	03	B	4	GA	0.0283	0.0000	0.0025
LEAR35	DEP	STANDARD	1	03	B	5	GA	0.0047	0.0000	0.0004
LEAR35	DEP	STANDARD	1	03	B	6	GA	0.0047	0.0000	0.0004
LEAR35	DEP	STANDARD	1	03	C	0	GA	0.0196	0.0000	0.0018
LEAR35	DEP	STANDARD	1	03	C	1	GA	0.0121	0.0000	0.0011
LEAR35	DEP	STANDARD	1	03	C	2	GA	0.0121	0.0000	0.0011
LEAR35	DEP	STANDARD	1	03	C	3	GA	0.0033	0.0000	0.0003
LEAR35	DEP	STANDARD	1	03	C	4	GA	0.0033	0.0000	0.0003
LEAR35	DEP	STANDARD	1	21	A	0	GA	0.0229	0.0000	0.0020
LEAR35	DEP	STANDARD	1	21	A	1	GA	0.0141	0.0000	0.0012
LEAR35	DEP	STANDARD	1	21	A	2	GA	0.0141	0.0000	0.0012
LEAR35	DEP	STANDARD	1	21	A	3	GA	0.0038	0.0000	0.0003
LEAR35	DEP	STANDARD	1	21	A	4	GA	0.0038	0.0000	0.0003
LEAR35	DEP	STANDARD	1	21	B	0	GA	0.0440	0.0000	0.0039
LEAR35	DEP	STANDARD	1	21	B	1	GA	0.0352	0.0000	0.0031
LEAR35	DEP	STANDARD	1	21	B	2	GA	0.0352	0.0000	0.0031
LEAR35	DEP	STANDARD	1	21	B	3	GA	0.0158	0.0000	0.0014
LEAR35	DEP	STANDARD	1	21	B	4	GA	0.0264	0.0000	0.0024
LEAR35	DEP	STANDARD	1	21	B	5	GA	0.0053	0.0000	0.0005
LEAR35	DEP	STANDARD	1	21	B	6	GA	0.0141	0.0000	0.0013
LEAR35	DEP	STANDARD	1	21	C	0	GA	0.0183	0.0000	0.0016
LEAR35	DEP	STANDARD	1	21	C	1	GA	0.0113	0.0000	0.0010
LEAR35	DEP	STANDARD	1	21	C	2	GA	0.0113	0.0000	0.0010
LEAR35	DEP	STANDARD	1	21	C	3	GA	0.0030	0.0000	0.0003
LEAR35	DEP	STANDARD	1	21	C	4	GA	0.0030	0.0000	0.0003
LEAR35	DEP	STANDARD	1	21	D	0	GA	0.0137	0.0000	0.0012
LEAR35	DEP	STANDARD	1	21	D	1	GA	0.0084	0.0000	0.0007
LEAR35	DEP	STANDARD	1	21	D	2	GA	0.0084	0.0000	0.0007
LEAR35	DEP	STANDARD	1	21	D	3	GA	0.0023	0.0000	0.0002
LEAR35	DEP	STANDARD	1	21	D	4	GA	0.0023	0.0000	0.0002
LEAR35	DEP	STANDARD	1	21	E	0	GA	0.0137	0.0000	0.0012
LEAR35	DEP	STANDARD	1	21	E	1	GA	0.0084	0.0000	0.0007
LEAR35	DEP	STANDARD	1	21	E	2	GA	0.0084	0.0000	0.0007
LEAR35	DEP	STANDARD	1	21	E	3	GA	0.0023	0.0000	0.0002
LEAR35	DEP	STANDARD	1	21	E	4	GA	0.0023	0.0000	0.0002
LEAR35	DEP	STANDARD	1	21	F	0	GA	0.3203	0.0000	0.0286
LEAR35	DEP	STANDARD	1	21	F	1	GA	0.1971	0.0000	0.0176
LEAR35	DEP	STANDARD	1	21	F	2	GA	0.1971	0.0000	0.0176
LEAR35	DEP	STANDARD	1	21	F	3	GA	0.0534	0.0000	0.0048
LEAR35	DEP	STANDARD	1	21	F	4	GA	0.0534	0.0000	0.0048

2006 PROPOSED ACTION CASE FLIGHT OPERATIONS

Acft	Op	Profile	Stg	Rwy	Track	Sub	Group	Day	Evening	Night
737300	APP	STANDARD	1	03	A	0	COM	0.0015	0.0000	0.0000
737300	APP	STANDARD	1	03	A	1	COM	0.0009	0.0000	0.0000
737300	APP	STANDARD	1	03	A	2	COM	0.0009	0.0000	0.0000

737300	APP	STANDARD	1	03	A	3	COM	0.0002	0.0000	0.0000
737300	APP	STANDARD	1	03	A	4	COM	0.0002	0.0000	0.0000
737300	APP	STANDARD	1	03	B	0	COM	0.0044	0.0000	0.0000
737300	APP	STANDARD	1	03	B	1	COM	0.0027	0.0000	0.0000
737300	APP	STANDARD	1	03	B	2	COM	0.0027	0.0000	0.0000
737300	APP	STANDARD	1	03	B	3	COM	0.0007	0.0000	0.0000
737300	APP	STANDARD	1	03	B	4	COM	0.0007	0.0000	0.0000
737300	APP	STANDARD	1	03	C	0	COM	0.0015	0.0000	0.0000
737300	APP	STANDARD	1	03	C	1	COM	0.0009	0.0000	0.0000
737300	APP	STANDARD	1	03	C	2	COM	0.0009	0.0000	0.0000
737300	APP	STANDARD	1	03	C	3	COM	0.0002	0.0000	0.0000
737300	APP	STANDARD	1	03	C	4	COM	0.0002	0.0000	0.0000
737300	APP	STANDARD	1	21	A	0	COM	0.0069	0.0000	0.0000
737300	APP	STANDARD	1	21	A	1	COM	0.0052	0.0000	0.0000
737300	APP	STANDARD	1	21	A	2	COM	0.0052	0.0000	0.0000
737300	APP	STANDARD	1	21	A	3	COM	0.0021	0.0000	0.0000
737300	APP	STANDARD	1	21	A	4	COM	0.0021	0.0000	0.0000
737300	APP	STANDARD	1	21	A	5	COM	0.0003	0.0000	0.0000
737300	APP	STANDARD	1	21	A	6	COM	0.0003	0.0000	0.0000
737300	APP	STANDARD	1	21	B	0	COM	0.0060	0.0000	0.0000
737300	APP	STANDARD	1	21	B	1	COM	0.0037	0.0000	0.0000
737300	APP	STANDARD	1	21	B	2	COM	0.0037	0.0000	0.0000
737300	APP	STANDARD	1	21	B	3	COM	0.0010	0.0000	0.0000
737300	APP	STANDARD	1	21	B	4	COM	0.0010	0.0000	0.0000
737300	APP	STANDARD	1	21	C	0	COM	0.0009	0.0000	0.0000
737300	APP	STANDARD	1	21	C	1	COM	0.0005	0.0000	0.0000
737300	APP	STANDARD	1	21	C	2	COM	0.0005	0.0000	0.0000
737300	APP	STANDARD	1	21	C	3	COM	0.0001	0.0000	0.0000
737300	APP	STANDARD	1	21	C	4	COM	0.0001	0.0000	0.0000
737300	APP	STANDARD	1	21	D	0	COM	0.0009	0.0000	0.0000
737300	APP	STANDARD	1	21	D	1	COM	0.0005	0.0000	0.0000
737300	APP	STANDARD	1	21	D	2	COM	0.0005	0.0000	0.0000
737300	APP	STANDARD	1	21	D	3	COM	0.0001	0.0000	0.0000
737300	APP	STANDARD	1	21	D	4	COM	0.0001	0.0000	0.0000
737300	APP	STANDARD	1	21	E	0	COM	0.0009	0.0000	0.0000
737300	APP	STANDARD	1	21	E	1	COM	0.0005	0.0000	0.0000
737300	APP	STANDARD	1	21	E	2	COM	0.0005	0.0000	0.0000
737300	APP	STANDARD	1	21	E	3	COM	0.0001	0.0000	0.0000
737300	APP	STANDARD	1	21	E	4	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	03	A	0	COM	0.0018	0.0000	0.0000
737300	DEP	STANDARD	1	03	A	1	COM	0.0013	0.0000	0.0000
737300	DEP	STANDARD	1	03	A	2	COM	0.0013	0.0000	0.0000
737300	DEP	STANDARD	1	03	A	3	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	03	A	4	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	03	A	5	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	03	A	6	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	03	B	0	COM	0.0035	0.0000	0.0000
737300	DEP	STANDARD	1	03	B	1	COM	0.0026	0.0000	0.0000
737300	DEP	STANDARD	1	03	B	2	COM	0.0026	0.0000	0.0000
737300	DEP	STANDARD	1	03	B	3	COM	0.0011	0.0000	0.0000
737300	DEP	STANDARD	1	03	B	4	COM	0.0011	0.0000	0.0000
737300	DEP	STANDARD	1	03	B	5	COM	0.0002	0.0000	0.0000
737300	DEP	STANDARD	1	03	B	6	COM	0.0002	0.0000	0.0000
737300	DEP	STANDARD	1	03	C	0	COM	0.0007	0.0000	0.0000
737300	DEP	STANDARD	1	03	C	1	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	03	C	2	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	03	C	3	COM	0.0001	0.0000	0.0000

737300	DEP	STANDARD	1	03	C	4	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	A	0	COM	0.0009	0.0000	0.0000
737300	DEP	STANDARD	1	21	A	1	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	21	A	2	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	21	A	3	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	A	4	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	B	0	COM	0.0016	0.0000	0.0000
737300	DEP	STANDARD	1	21	B	1	COM	0.0013	0.0000	0.0000
737300	DEP	STANDARD	1	21	B	2	COM	0.0013	0.0000	0.0000
737300	DEP	STANDARD	1	21	B	3	COM	0.0006	0.0000	0.0000
737300	DEP	STANDARD	1	21	B	4	COM	0.0010	0.0000	0.0000
737300	DEP	STANDARD	1	21	B	5	COM	0.0002	0.0000	0.0000
737300	DEP	STANDARD	1	21	B	6	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	21	C	0	COM	0.0007	0.0000	0.0000
737300	DEP	STANDARD	1	21	C	1	COM	0.0004	0.0000	0.0000
737300	DEP	STANDARD	1	21	C	2	COM	0.0004	0.0000	0.0000
737300	DEP	STANDARD	1	21	C	3	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	C	4	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	D	0	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	21	D	1	COM	0.0003	0.0000	0.0000
737300	DEP	STANDARD	1	21	D	2	COM	0.0003	0.0000	0.0000
737300	DEP	STANDARD	1	21	D	3	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	D	4	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	E	0	COM	0.0005	0.0000	0.0000
737300	DEP	STANDARD	1	21	E	1	COM	0.0003	0.0000	0.0000
737300	DEP	STANDARD	1	21	E	2	COM	0.0003	0.0000	0.0000
737300	DEP	STANDARD	1	21	E	3	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	E	4	COM	0.0001	0.0000	0.0000
737300	DEP	STANDARD	1	21	F	0	COM	0.0121	0.0000	0.0000
737300	DEP	STANDARD	1	21	F	1	COM	0.0074	0.0000	0.0000
737300	DEP	STANDARD	1	21	F	2	COM	0.0074	0.0000	0.0000
737300	DEP	STANDARD	1	21	F	3	COM	0.0020	0.0000	0.0000
737300	DEP	STANDARD	1	21	F	4	COM	0.0020	0.0000	0.0000
B206L	APP	USER	1	03	A	0	HEL	0.0402	0.0000	0.0026
B206L	APP	USER	1	03	A	1	HEL	0.0247	0.0000	0.0016
B206L	APP	USER	1	03	A	2	HEL	0.0247	0.0000	0.0016
B206L	APP	USER	1	03	A	3	HEL	0.0067	0.0000	0.0004
B206L	APP	USER	1	03	A	4	HEL	0.0067	0.0000	0.0004
B206L	APP	USER	1	03	B	0	HEL	0.1205	0.0000	0.0077
B206L	APP	USER	1	03	B	1	HEL	0.0742	0.0000	0.0047
B206L	APP	USER	1	03	B	2	HEL	0.0742	0.0000	0.0047
B206L	APP	USER	1	03	B	3	HEL	0.0201	0.0000	0.0013
B206L	APP	USER	1	03	B	4	HEL	0.0201	0.0000	0.0013
B206L	APP	USER	1	03	C	0	HEL	0.0402	0.0000	0.0026
B206L	APP	USER	1	03	C	1	HEL	0.0247	0.0000	0.0016
B206L	APP	USER	1	03	C	2	HEL	0.0247	0.0000	0.0016
B206L	APP	USER	1	03	C	3	HEL	0.0067	0.0000	0.0004
B206L	APP	USER	1	03	C	4	HEL	0.0067	0.0000	0.0004
B206L	APP	USER	1	21	A	0	HEL	0.0563	0.0000	0.0036
B206L	APP	USER	1	21	A	1	HEL	0.0422	0.0000	0.0027
B206L	APP	USER	1	21	A	2	HEL	0.0422	0.0000	0.0027
B206L	APP	USER	1	21	A	3	HEL	0.0169	0.0000	0.0011
B206L	APP	USER	1	21	A	4	HEL	0.0169	0.0000	0.0011
B206L	APP	USER	1	21	A	5	HEL	0.0028	0.0000	0.0002
B206L	APP	USER	1	21	A	6	HEL	0.0028	0.0000	0.0002
B206L	APP	USER	1	21	B	0	HEL	0.2812	0.0000	0.0179
B206L	APP	USER	1	21	B	1	HEL	0.1730	0.0000	0.0110

B206L	APP	USER	1	21	B	2	HEL	0.1730	0.0000	0.0110
B206L	APP	USER	1	21	B	3	HEL	0.0469	0.0000	0.0030
B206L	APP	USER	1	21	B	4	HEL	0.0469	0.0000	0.0030
B206L	APP	USER	1	21	C	0	HEL	0.0469	0.0000	0.0030
B206L	APP	USER	1	21	C	1	HEL	0.0288	0.0000	0.0018
B206L	APP	USER	1	21	C	2	HEL	0.0288	0.0000	0.0018
B206L	APP	USER	1	21	C	3	HEL	0.0078	0.0000	0.0005
B206L	APP	USER	1	21	C	4	HEL	0.0078	0.0000	0.0005
B206L	APP	USER	1	21	D	0	HEL	0.0469	0.0000	0.0030
B206L	APP	USER	1	21	D	1	HEL	0.0288	0.0000	0.0018
B206L	APP	USER	1	21	D	2	HEL	0.0288	0.0000	0.0018
B206L	APP	USER	1	21	D	3	HEL	0.0078	0.0000	0.0005
B206L	APP	USER	1	21	D	4	HEL	0.0078	0.0000	0.0005
B206L	APP	USER	1	21	E	0	HEL	0.0234	0.0000	0.0015
B206L	APP	USER	1	21	E	1	HEL	0.0144	0.0000	0.0009
B206L	APP	USER	1	21	E	2	HEL	0.0144	0.0000	0.0009
B206L	APP	USER	1	21	E	3	HEL	0.0039	0.0000	0.0002
B206L	APP	USER	1	21	E	4	HEL	0.0039	0.0000	0.0002
B206L	DEP	USER	1	03	A	0	HEL	0.0322	0.0000	0.0021
B206L	DEP	USER	1	03	A	1	HEL	0.0241	0.0000	0.0015
B206L	DEP	USER	1	03	A	2	HEL	0.0241	0.0000	0.0015
B206L	DEP	USER	1	03	A	3	HEL	0.0097	0.0000	0.0006
B206L	DEP	USER	1	03	A	4	HEL	0.0097	0.0000	0.0006
B206L	DEP	USER	1	03	A	5	HEL	0.0016	0.0000	0.0001
B206L	DEP	USER	1	03	A	6	HEL	0.0016	0.0000	0.0001
B206L	DEP	USER	1	03	B	0	HEL	0.0965	0.0000	0.0062
B206L	DEP	USER	1	03	B	1	HEL	0.0724	0.0000	0.0046
B206L	DEP	USER	1	03	B	2	HEL	0.0724	0.0000	0.0046
B206L	DEP	USER	1	03	B	3	HEL	0.0290	0.0000	0.0018
B206L	DEP	USER	1	03	B	4	HEL	0.0290	0.0000	0.0018
B206L	DEP	USER	1	03	B	5	HEL	0.0048	0.0000	0.0003
B206L	DEP	USER	1	03	B	6	HEL	0.0048	0.0000	0.0003
B206L	DEP	USER	1	03	C	0	HEL	0.0402	0.0000	0.0026
B206L	DEP	USER	1	03	C	1	HEL	0.0247	0.0000	0.0016
B206L	DEP	USER	1	03	C	2	HEL	0.0247	0.0000	0.0016
B206L	DEP	USER	1	03	C	3	HEL	0.0067	0.0000	0.0004
B206L	DEP	USER	1	03	C	4	HEL	0.0067	0.0000	0.0004
B206L	DEP	USER	1	21	A	0	HEL	0.0234	0.0000	0.0015
B206L	DEP	USER	1	21	A	1	HEL	0.0144	0.0000	0.0009
B206L	DEP	USER	1	21	A	2	HEL	0.0144	0.0000	0.0009
B206L	DEP	USER	1	21	A	3	HEL	0.0039	0.0000	0.0002
B206L	DEP	USER	1	21	A	4	HEL	0.0039	0.0000	0.0002
B206L	DEP	USER	1	21	B	0	HEL	0.1352	0.0000	0.0086
B206L	DEP	USER	1	21	B	1	HEL	0.1081	0.0000	0.0069
B206L	DEP	USER	1	21	B	2	HEL	0.1081	0.0000	0.0069
B206L	DEP	USER	1	21	B	3	HEL	0.0487	0.0000	0.0031
B206L	DEP	USER	1	21	B	4	HEL	0.0811	0.0000	0.0052
B206L	DEP	USER	1	21	B	5	HEL	0.0162	0.0000	0.0010
B206L	DEP	USER	1	21	B	6	HEL	0.0433	0.0000	0.0028
B206L	DEP	USER	1	21	C	0	HEL	0.1172	0.0000	0.0075
B206L	DEP	USER	1	21	C	1	HEL	0.0721	0.0000	0.0046
B206L	DEP	USER	1	21	C	2	HEL	0.0721	0.0000	0.0046
B206L	DEP	USER	1	21	C	3	HEL	0.0195	0.0000	0.0012
B206L	DEP	USER	1	21	C	4	HEL	0.0195	0.0000	0.0012
B206L	DEP	USER	1	21	D	0	HEL	0.0469	0.0000	0.0030
B206L	DEP	USER	1	21	D	1	HEL	0.0288	0.0000	0.0018
B206L	DEP	USER	1	21	D	2	HEL	0.0288	0.0000	0.0018

B206L	DEP	USER	1	21	D	3	HEL	0.0078	0.0000	0.0005
B206L	DEP	USER	1	21	D	4	HEL	0.0078	0.0000	0.0005
B206L	DEP	USER	1	21	E	0	HEL	0.0469	0.0000	0.0030
B206L	DEP	USER	1	21	E	1	HEL	0.0288	0.0000	0.0018
B206L	DEP	USER	1	21	E	2	HEL	0.0288	0.0000	0.0018
B206L	DEP	USER	1	21	E	3	HEL	0.0078	0.0000	0.0005
B206L	DEP	USER	1	21	E	4	HEL	0.0078	0.0000	0.0005
B206L	DEP	USER	1	21	F	0	HEL	0.0234	0.0000	0.0015
B206L	DEP	USER	1	21	F	1	HEL	0.0144	0.0000	0.0009
B206L	DEP	USER	1	21	F	2	HEL	0.0144	0.0000	0.0009
B206L	DEP	USER	1	21	F	3	HEL	0.0039	0.0000	0.0002
B206L	DEP	USER	1	21	F	4	HEL	0.0039	0.0000	0.0002
B206L	TGO	USER	1	03	A	0	HEL	0.0912	0.0000	0.0058
B206L	TGO	USER	1	03	A	1	HEL	0.0684	0.0000	0.0044
B206L	TGO	USER	1	03	A	2	HEL	0.0684	0.0000	0.0044
B206L	TGO	USER	1	03	A	3	HEL	0.0274	0.0000	0.0017
B206L	TGO	USER	1	03	A	4	HEL	0.0274	0.0000	0.0017
B206L	TGO	USER	1	03	A	5	HEL	0.0046	0.0000	0.0003
B206L	TGO	USER	1	03	A	6	HEL	0.0046	0.0000	0.0003
B206L	TGO	USER	1	21	A	0	HEL	0.3646	0.0000	0.0233
B206L	TGO	USER	1	21	A	1	HEL	0.2736	0.0000	0.0175
B206L	TGO	USER	1	21	A	2	HEL	0.2736	0.0000	0.0175
B206L	TGO	USER	1	21	A	3	HEL	0.1095	0.0000	0.0070
B206L	TGO	USER	1	21	A	4	HEL	0.1095	0.0000	0.0070
B206L	TGO	USER	1	21	A	5	HEL	0.0182	0.0000	0.0012
B206L	TGO	USER	1	21	A	6	HEL	0.0182	0.0000	0.0012
B212	APP	USER	1	03	A	0	HEL	0.0176	0.0000	0.0000
B212	APP	USER	1	03	A	1	HEL	0.0108	0.0000	0.0000
B212	APP	USER	1	03	A	2	HEL	0.0108	0.0000	0.0000
B212	APP	USER	1	03	A	3	HEL	0.0029	0.0000	0.0000
B212	APP	USER	1	03	A	4	HEL	0.0029	0.0000	0.0000
B212	APP	USER	1	03	B	0	HEL	0.0529	0.0000	0.0000
B212	APP	USER	1	03	B	1	HEL	0.0325	0.0000	0.0000
B212	APP	USER	1	03	B	2	HEL	0.0325	0.0000	0.0000
B212	APP	USER	1	03	B	3	HEL	0.0088	0.0000	0.0000
B212	APP	USER	1	03	B	4	HEL	0.0088	0.0000	0.0000
B212	APP	USER	1	03	C	0	HEL	0.0176	0.0000	0.0000
B212	APP	USER	1	03	C	1	HEL	0.0108	0.0000	0.0000
B212	APP	USER	1	03	C	2	HEL	0.0108	0.0000	0.0000
B212	APP	USER	1	03	C	3	HEL	0.0029	0.0000	0.0000
B212	APP	USER	1	03	C	4	HEL	0.0029	0.0000	0.0000
B212	APP	USER	1	21	A	0	HEL	0.0247	0.0000	0.0000
B212	APP	USER	1	21	A	1	HEL	0.0185	0.0000	0.0000
B212	APP	USER	1	21	A	2	HEL	0.0185	0.0000	0.0000
B212	APP	USER	1	21	A	3	HEL	0.0074	0.0000	0.0000
B212	APP	USER	1	21	A	4	HEL	0.0074	0.0000	0.0000
B212	APP	USER	1	21	A	5	HEL	0.0012	0.0000	0.0000
B212	APP	USER	1	21	A	6	HEL	0.0012	0.0000	0.0000
B212	APP	USER	1	21	B	0	HEL	0.1234	0.0000	0.0000
B212	APP	USER	1	21	B	1	HEL	0.0759	0.0000	0.0000
B212	APP	USER	1	21	B	2	HEL	0.0759	0.0000	0.0000
B212	APP	USER	1	21	B	3	HEL	0.0206	0.0000	0.0000
B212	APP	USER	1	21	B	4	HEL	0.0206	0.0000	0.0000
B212	APP	USER	1	21	C	0	HEL	0.0206	0.0000	0.0000
B212	APP	USER	1	21	C	1	HEL	0.0126	0.0000	0.0000
B212	APP	USER	1	21	C	2	HEL	0.0126	0.0000	0.0000
B212	APP	USER	1	21	C	3	HEL	0.0034	0.0000	0.0000

B212	APP	USER	1	21	C	4	HEL	0.0034	0.0000	0.0000
B212	APP	USER	1	21	D	0	HEL	0.0206	0.0000	0.0000
B212	APP	USER	1	21	D	1	HEL	0.0126	0.0000	0.0000
B212	APP	USER	1	21	D	2	HEL	0.0126	0.0000	0.0000
B212	APP	USER	1	21	D	3	HEL	0.0034	0.0000	0.0000
B212	APP	USER	1	21	D	4	HEL	0.0034	0.0000	0.0000
B212	APP	USER	1	21	E	0	HEL	0.0103	0.0000	0.0000
B212	APP	USER	1	21	E	1	HEL	0.0063	0.0000	0.0000
B212	APP	USER	1	21	E	2	HEL	0.0063	0.0000	0.0000
B212	APP	USER	1	21	E	3	HEL	0.0017	0.0000	0.0000
B212	APP	USER	1	21	E	4	HEL	0.0017	0.0000	0.0000
B212	DEP	USER	1	03	A	0	HEL	0.0141	0.0000	0.0000
B212	DEP	USER	1	03	A	1	HEL	0.0106	0.0000	0.0000
B212	DEP	USER	1	03	A	2	HEL	0.0106	0.0000	0.0000
B212	DEP	USER	1	03	A	3	HEL	0.0042	0.0000	0.0000
B212	DEP	USER	1	03	A	4	HEL	0.0042	0.0000	0.0000
B212	DEP	USER	1	03	A	5	HEL	0.0007	0.0000	0.0000
B212	DEP	USER	1	03	A	6	HEL	0.0007	0.0000	0.0000
B212	DEP	USER	1	03	B	0	HEL	0.0424	0.0000	0.0000
B212	DEP	USER	1	03	B	1	HEL	0.0318	0.0000	0.0000
B212	DEP	USER	1	03	B	2	HEL	0.0318	0.0000	0.0000
B212	DEP	USER	1	03	B	3	HEL	0.0127	0.0000	0.0000
B212	DEP	USER	1	03	B	4	HEL	0.0127	0.0000	0.0000
B212	DEP	USER	1	03	B	5	HEL	0.0021	0.0000	0.0000
B212	DEP	USER	1	03	B	6	HEL	0.0021	0.0000	0.0000
B212	DEP	USER	1	03	C	0	HEL	0.0176	0.0000	0.0000
B212	DEP	USER	1	03	C	1	HEL	0.0108	0.0000	0.0000
B212	DEP	USER	1	03	C	2	HEL	0.0108	0.0000	0.0000
B212	DEP	USER	1	03	C	3	HEL	0.0029	0.0000	0.0000
B212	DEP	USER	1	03	C	4	HEL	0.0029	0.0000	0.0000
B212	DEP	USER	1	21	A	0	HEL	0.0206	0.0000	0.0000
B212	DEP	USER	1	21	A	1	HEL	0.0126	0.0000	0.0000
B212	DEP	USER	1	21	A	2	HEL	0.0126	0.0000	0.0000
B212	DEP	USER	1	21	A	3	HEL	0.0034	0.0000	0.0000
B212	DEP	USER	1	21	A	4	HEL	0.0034	0.0000	0.0000
B212	DEP	USER	1	21	B	0	HEL	0.0461	0.0000	0.0000
B212	DEP	USER	1	21	B	1	HEL	0.0369	0.0000	0.0000
B212	DEP	USER	1	21	B	2	HEL	0.0369	0.0000	0.0000
B212	DEP	USER	1	21	B	3	HEL	0.0166	0.0000	0.0000
B212	DEP	USER	1	21	B	4	HEL	0.0277	0.0000	0.0000
B212	DEP	USER	1	21	B	5	HEL	0.0055	0.0000	0.0000
B212	DEP	USER	1	21	B	6	HEL	0.0148	0.0000	0.0000
B212	DEP	USER	1	21	C	0	HEL	0.0720	0.0000	0.0000
B212	DEP	USER	1	21	C	1	HEL	0.0443	0.0000	0.0000
B212	DEP	USER	1	21	C	2	HEL	0.0443	0.0000	0.0000
B212	DEP	USER	1	21	C	3	HEL	0.0120	0.0000	0.0000
B212	DEP	USER	1	21	C	4	HEL	0.0120	0.0000	0.0000
B212	DEP	USER	1	21	D	0	HEL	0.0206	0.0000	0.0000
B212	DEP	USER	1	21	D	1	HEL	0.0126	0.0000	0.0000
B212	DEP	USER	1	21	D	2	HEL	0.0126	0.0000	0.0000
B212	DEP	USER	1	21	D	3	HEL	0.0034	0.0000	0.0000
B212	DEP	USER	1	21	D	4	HEL	0.0034	0.0000	0.0000
B212	DEP	USER	1	21	E	0	HEL	0.0206	0.0000	0.0000
B212	DEP	USER	1	21	E	1	HEL	0.0126	0.0000	0.0000
B212	DEP	USER	1	21	E	2	HEL	0.0126	0.0000	0.0000
B212	DEP	USER	1	21	E	3	HEL	0.0034	0.0000	0.0000
B212	DEP	USER	1	21	E	4	HEL	0.0034	0.0000	0.0000

BEC58P	APP	STANDARD	2	03	A	0	GA	0.1295	0.0000	0.0111
BEC58P	APP	STANDARD	2	03	A	1	GA	0.0797	0.0000	0.0068
BEC58P	APP	STANDARD	2	03	A	2	GA	0.0797	0.0000	0.0068
BEC58P	APP	STANDARD	2	03	A	3	GA	0.0216	0.0000	0.0019
BEC58P	APP	STANDARD	2	03	A	4	GA	0.0216	0.0000	0.0019
BEC58P	APP	STANDARD	2	03	B	0	GA	0.3884	0.0000	0.0334
BEC58P	APP	STANDARD	2	03	B	1	GA	0.2390	0.0000	0.0205
BEC58P	APP	STANDARD	2	03	B	2	GA	0.2390	0.0000	0.0205
BEC58P	APP	STANDARD	2	03	B	3	GA	0.0647	0.0000	0.0056
BEC58P	APP	STANDARD	2	03	B	4	GA	0.0647	0.0000	0.0056
BEC58P	APP	STANDARD	2	03	C	0	GA	0.1295	0.0000	0.0111
BEC58P	APP	STANDARD	2	03	C	1	GA	0.0797	0.0000	0.0068
BEC58P	APP	STANDARD	2	03	C	2	GA	0.0797	0.0000	0.0068
BEC58P	APP	STANDARD	2	03	C	3	GA	0.0216	0.0000	0.0019
BEC58P	APP	STANDARD	2	03	C	4	GA	0.0216	0.0000	0.0019
BEC58P	APP	STANDARD	2	21	A	0	GA	0.1815	0.0000	0.0156
BEC58P	APP	STANDARD	2	21	A	1	GA	0.1362	0.0000	0.0117
BEC58P	APP	STANDARD	2	21	A	2	GA	0.1362	0.0000	0.0117
BEC58P	APP	STANDARD	2	21	A	3	GA	0.0545	0.0000	0.0047
BEC58P	APP	STANDARD	2	21	A	4	GA	0.0545	0.0000	0.0047
BEC58P	APP	STANDARD	2	21	A	5	GA	0.0091	0.0000	0.0008
BEC58P	APP	STANDARD	2	21	A	6	GA	0.0091	0.0000	0.0008
BEC58P	APP	STANDARD	2	21	B	0	GA	0.9062	0.0000	0.0779
BEC58P	APP	STANDARD	2	21	B	1	GA	0.5577	0.0000	0.0479
BEC58P	APP	STANDARD	2	21	B	2	GA	0.5577	0.0000	0.0479
BEC58P	APP	STANDARD	2	21	B	3	GA	0.1510	0.0000	0.0130
BEC58P	APP	STANDARD	2	21	B	4	GA	0.1510	0.0000	0.0130
BEC58P	APP	STANDARD	2	21	C	0	GA	0.1510	0.0000	0.0130
BEC58P	APP	STANDARD	2	21	C	1	GA	0.0930	0.0000	0.0080
BEC58P	APP	STANDARD	2	21	C	2	GA	0.0930	0.0000	0.0080
BEC58P	APP	STANDARD	2	21	C	3	GA	0.0252	0.0000	0.0022
BEC58P	APP	STANDARD	2	21	C	4	GA	0.0252	0.0000	0.0022
BEC58P	APP	STANDARD	2	21	D	0	GA	0.1510	0.0000	0.0130
BEC58P	APP	STANDARD	2	21	D	1	GA	0.0930	0.0000	0.0080
BEC58P	APP	STANDARD	2	21	D	2	GA	0.0930	0.0000	0.0080
BEC58P	APP	STANDARD	2	21	D	3	GA	0.0252	0.0000	0.0022
BEC58P	APP	STANDARD	2	21	D	4	GA	0.0252	0.0000	0.0022
BEC58P	APP	STANDARD	2	21	E	0	GA	0.0755	0.0000	0.0065
BEC58P	APP	STANDARD	2	21	E	1	GA	0.0465	0.0000	0.0040
BEC58P	APP	STANDARD	2	21	E	2	GA	0.0465	0.0000	0.0040
BEC58P	APP	STANDARD	2	21	E	3	GA	0.0126	0.0000	0.0011
BEC58P	APP	STANDARD	2	21	E	4	GA	0.0126	0.0000	0.0011
BEC58P	DEP	STANDARD	1	03	A	0	GA	0.1037	0.0000	0.0089
BEC58P	DEP	STANDARD	1	03	A	1	GA	0.0778	0.0000	0.0067
BEC58P	DEP	STANDARD	1	03	A	2	GA	0.0778	0.0000	0.0067
BEC58P	DEP	STANDARD	1	03	A	3	GA	0.0311	0.0000	0.0027
BEC58P	DEP	STANDARD	1	03	A	4	GA	0.0311	0.0000	0.0027
BEC58P	DEP	STANDARD	1	03	A	5	GA	0.0052	0.0000	0.0004
BEC58P	DEP	STANDARD	1	03	A	6	GA	0.0052	0.0000	0.0004
BEC58P	DEP	STANDARD	1	03	B	0	GA	0.3111	0.0000	0.0267
BEC58P	DEP	STANDARD	1	03	B	1	GA	0.2334	0.0000	0.0201
BEC58P	DEP	STANDARD	1	03	B	2	GA	0.2334	0.0000	0.0201
BEC58P	DEP	STANDARD	1	03	B	3	GA	0.0934	0.0000	0.0080
BEC58P	DEP	STANDARD	1	03	B	4	GA	0.0934	0.0000	0.0080
BEC58P	DEP	STANDARD	1	03	B	5	GA	0.0155	0.0000	0.0013
BEC58P	DEP	STANDARD	1	03	B	6	GA	0.0155	0.0000	0.0013
BEC58P	DEP	STANDARD	1	03	C	0	GA	0.1295	0.0000	0.0111

BEC58P	DEP	STANDARD	1	03	C	1	GA	0.0797	0.0000	0.0068
BEC58P	DEP	STANDARD	1	03	C	2	GA	0.0797	0.0000	0.0068
BEC58P	DEP	STANDARD	1	03	C	3	GA	0.0216	0.0000	0.0019
BEC58P	DEP	STANDARD	1	03	C	4	GA	0.0216	0.0000	0.0019
BEC58P	DEP	STANDARD	1	21	A	0	GA	0.0755	0.0000	0.0065
BEC58P	DEP	STANDARD	1	21	A	1	GA	0.0465	0.0000	0.0040
BEC58P	DEP	STANDARD	1	21	A	2	GA	0.0465	0.0000	0.0040
BEC58P	DEP	STANDARD	1	21	A	3	GA	0.0126	0.0000	0.0011
BEC58P	DEP	STANDARD	1	21	A	4	GA	0.0126	0.0000	0.0011
BEC58P	DEP	STANDARD	1	21	B	0	GA	0.4357	0.0000	0.0375
BEC58P	DEP	STANDARD	1	21	B	1	GA	0.3486	0.0000	0.0300
BEC58P	DEP	STANDARD	1	21	B	2	GA	0.3486	0.0000	0.0300
BEC58P	DEP	STANDARD	1	21	B	3	GA	0.1569	0.0000	0.0135
BEC58P	DEP	STANDARD	1	21	B	4	GA	0.2614	0.0000	0.0225
BEC58P	DEP	STANDARD	1	21	B	5	GA	0.0523	0.0000	0.0045
BEC58P	DEP	STANDARD	1	21	B	6	GA	0.1394	0.0000	0.0120
BEC58P	DEP	STANDARD	1	21	C	0	GA	0.3776	0.0000	0.0324
BEC58P	DEP	STANDARD	1	21	C	1	GA	0.2324	0.0000	0.0200
BEC58P	DEP	STANDARD	1	21	C	2	GA	0.2324	0.0000	0.0200
BEC58P	DEP	STANDARD	1	21	C	3	GA	0.0629	0.0000	0.0054
BEC58P	DEP	STANDARD	1	21	C	4	GA	0.0629	0.0000	0.0054
BEC58P	DEP	STANDARD	1	21	D	0	GA	0.1510	0.0000	0.0130
BEC58P	DEP	STANDARD	1	21	D	1	GA	0.0930	0.0000	0.0080
BEC58P	DEP	STANDARD	1	21	D	2	GA	0.0930	0.0000	0.0080
BEC58P	DEP	STANDARD	1	21	D	3	GA	0.0252	0.0000	0.0022
BEC58P	DEP	STANDARD	1	21	D	4	GA	0.0252	0.0000	0.0022
BEC58P	DEP	STANDARD	1	21	E	0	GA	0.1510	0.0000	0.0130
BEC58P	DEP	STANDARD	1	21	E	1	GA	0.0930	0.0000	0.0080
BEC58P	DEP	STANDARD	1	21	E	2	GA	0.0930	0.0000	0.0080
BEC58P	DEP	STANDARD	1	21	E	3	GA	0.0252	0.0000	0.0022
BEC58P	DEP	STANDARD	1	21	E	4	GA	0.0252	0.0000	0.0022
BEC58P	DEP	STANDARD	1	21	F	0	GA	0.0755	0.0000	0.0065
BEC58P	DEP	STANDARD	1	21	F	1	GA	0.0465	0.0000	0.0040
BEC58P	DEP	STANDARD	1	21	F	2	GA	0.0465	0.0000	0.0040
BEC58P	DEP	STANDARD	1	21	F	3	GA	0.0126	0.0000	0.0011
BEC58P	DEP	STANDARD	1	21	F	4	GA	0.0126	0.0000	0.0011
BEC58P	TGO	STANDARD	1	03	A	0	GA	0.0912	0.0000	0.0058
BEC58P	TGO	STANDARD	1	03	A	1	GA	0.0684	0.0000	0.0044
BEC58P	TGO	STANDARD	1	03	A	2	GA	0.0684	0.0000	0.0044
BEC58P	TGO	STANDARD	1	03	A	3	GA	0.0274	0.0000	0.0017
BEC58P	TGO	STANDARD	1	03	A	4	GA	0.0274	0.0000	0.0017
BEC58P	TGO	STANDARD	1	03	A	5	GA	0.0046	0.0000	0.0003
BEC58P	TGO	STANDARD	1	03	A	6	GA	0.0046	0.0000	0.0003
BEC58P	TGO	STANDARD	1	21	A	0	GA	0.3646	0.0000	0.0233
BEC58P	TGO	STANDARD	1	21	A	1	GA	0.2736	0.0000	0.0175
BEC58P	TGO	STANDARD	1	21	A	2	GA	0.2736	0.0000	0.0175
BEC58P	TGO	STANDARD	1	21	A	3	GA	0.1095	0.0000	0.0070
BEC58P	TGO	STANDARD	1	21	A	4	GA	0.1095	0.0000	0.0070
BEC58P	TGO	STANDARD	1	21	A	5	GA	0.0182	0.0000	0.0012
BEC58P	TGO	STANDARD	1	21	A	6	GA	0.0182	0.0000	0.0012
C12	APP	STANDARD	1	03	A	0	MIL	0.0110	0.0000	0.0000
C12	APP	STANDARD	1	03	A	1	MIL	0.0068	0.0000	0.0000
C12	APP	STANDARD	1	03	A	2	MIL	0.0068	0.0000	0.0000
C12	APP	STANDARD	1	03	A	3	MIL	0.0018	0.0000	0.0000
C12	APP	STANDARD	1	03	A	4	MIL	0.0018	0.0000	0.0000
C12	APP	STANDARD	1	03	B	0	MIL	0.0330	0.0000	0.0000
C12	APP	STANDARD	1	03	B	1	MIL	0.0203	0.0000	0.0000

C12	APP	STANDARD	1	03	B	2	MIL	0.0203	0.0000	0.0000
C12	APP	STANDARD	1	03	B	3	MIL	0.0055	0.0000	0.0000
C12	APP	STANDARD	1	03	B	4	MIL	0.0055	0.0000	0.0000
C12	APP	STANDARD	1	03	C	0	MIL	0.0110	0.0000	0.0000
C12	APP	STANDARD	1	03	C	1	MIL	0.0068	0.0000	0.0000
C12	APP	STANDARD	1	03	C	2	MIL	0.0068	0.0000	0.0000
C12	APP	STANDARD	1	03	C	3	MIL	0.0018	0.0000	0.0000
C12	APP	STANDARD	1	03	C	4	MIL	0.0018	0.0000	0.0000
C12	APP	STANDARD	1	21	A	0	MIL	0.0154	0.0000	0.0000
C12	APP	STANDARD	1	21	A	1	MIL	0.0116	0.0000	0.0000
C12	APP	STANDARD	1	21	A	2	MIL	0.0116	0.0000	0.0000
C12	APP	STANDARD	1	21	A	3	MIL	0.0046	0.0000	0.0000
C12	APP	STANDARD	1	21	A	4	MIL	0.0046	0.0000	0.0000
C12	APP	STANDARD	1	21	A	5	MIL	0.0008	0.0000	0.0000
C12	APP	STANDARD	1	21	A	6	MIL	0.0008	0.0000	0.0000
C12	APP	STANDARD	1	21	B	0	MIL	0.0769	0.0000	0.0000
C12	APP	STANDARD	1	21	B	1	MIL	0.0474	0.0000	0.0000
C12	APP	STANDARD	1	21	B	2	MIL	0.0474	0.0000	0.0000
C12	APP	STANDARD	1	21	B	3	MIL	0.0128	0.0000	0.0000
C12	APP	STANDARD	1	21	B	4	MIL	0.0128	0.0000	0.0000
C12	APP	STANDARD	1	21	C	0	MIL	0.0128	0.0000	0.0000
C12	APP	STANDARD	1	21	C	1	MIL	0.0079	0.0000	0.0000
C12	APP	STANDARD	1	21	C	2	MIL	0.0079	0.0000	0.0000
C12	APP	STANDARD	1	21	C	3	MIL	0.0021	0.0000	0.0000
C12	APP	STANDARD	1	21	C	4	MIL	0.0021	0.0000	0.0000
C12	APP	STANDARD	1	21	D	0	MIL	0.0128	0.0000	0.0000
C12	APP	STANDARD	1	21	D	1	MIL	0.0079	0.0000	0.0000
C12	APP	STANDARD	1	21	D	2	MIL	0.0079	0.0000	0.0000
C12	APP	STANDARD	1	21	D	3	MIL	0.0021	0.0000	0.0000
C12	APP	STANDARD	1	21	D	4	MIL	0.0021	0.0000	0.0000
C12	APP	STANDARD	1	21	E	0	MIL	0.0064	0.0000	0.0000
C12	APP	STANDARD	1	21	E	1	MIL	0.0039	0.0000	0.0000
C12	APP	STANDARD	1	21	E	2	MIL	0.0039	0.0000	0.0000
C12	APP	STANDARD	1	21	E	3	MIL	0.0011	0.0000	0.0000
C12	APP	STANDARD	1	21	E	4	MIL	0.0011	0.0000	0.0000
C12	DEP	STANDARD	1	03	A	0	MIL	0.0088	0.0000	0.0000
C12	DEP	STANDARD	1	03	A	1	MIL	0.0066	0.0000	0.0000
C12	DEP	STANDARD	1	03	A	2	MIL	0.0066	0.0000	0.0000
C12	DEP	STANDARD	1	03	A	3	MIL	0.0026	0.0000	0.0000
C12	DEP	STANDARD	1	03	A	4	MIL	0.0026	0.0000	0.0000
C12	DEP	STANDARD	1	03	A	5	MIL	0.0004	0.0000	0.0000
C12	DEP	STANDARD	1	03	A	6	MIL	0.0004	0.0000	0.0000
C12	DEP	STANDARD	1	03	B	0	MIL	0.0264	0.0000	0.0000
C12	DEP	STANDARD	1	03	B	1	MIL	0.0198	0.0000	0.0000
C12	DEP	STANDARD	1	03	B	2	MIL	0.0198	0.0000	0.0000
C12	DEP	STANDARD	1	03	B	3	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	03	B	4	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	03	B	5	MIL	0.0013	0.0000	0.0000
C12	DEP	STANDARD	1	03	B	6	MIL	0.0013	0.0000	0.0000
C12	DEP	STANDARD	1	03	C	0	MIL	0.0110	0.0000	0.0000
C12	DEP	STANDARD	1	03	C	1	MIL	0.0068	0.0000	0.0000
C12	DEP	STANDARD	1	03	C	2	MIL	0.0068	0.0000	0.0000
C12	DEP	STANDARD	1	03	C	3	MIL	0.0018	0.0000	0.0000
C12	DEP	STANDARD	1	03	C	4	MIL	0.0018	0.0000	0.0000
C12	DEP	STANDARD	1	21	A	0	MIL	0.0128	0.0000	0.0000
C12	DEP	STANDARD	1	21	A	1	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	21	A	2	MIL	0.0079	0.0000	0.0000

C12	DEP	STANDARD	1	21	A	3	MIL	0.0021	0.0000	0.0000
C12	DEP	STANDARD	1	21	A	4	MIL	0.0021	0.0000	0.0000
C12	DEP	STANDARD	1	21	B	0	MIL	0.0288	0.0000	0.0000
C12	DEP	STANDARD	1	21	B	1	MIL	0.0230	0.0000	0.0000
C12	DEP	STANDARD	1	21	B	2	MIL	0.0230	0.0000	0.0000
C12	DEP	STANDARD	1	21	B	3	MIL	0.0104	0.0000	0.0000
C12	DEP	STANDARD	1	21	B	4	MIL	0.0173	0.0000	0.0000
C12	DEP	STANDARD	1	21	B	5	MIL	0.0035	0.0000	0.0000
C12	DEP	STANDARD	1	21	B	6	MIL	0.0092	0.0000	0.0000
C12	DEP	STANDARD	1	21	C	0	MIL	0.0449	0.0000	0.0000
C12	DEP	STANDARD	1	21	C	1	MIL	0.0276	0.0000	0.0000
C12	DEP	STANDARD	1	21	C	2	MIL	0.0276	0.0000	0.0000
C12	DEP	STANDARD	1	21	C	3	MIL	0.0075	0.0000	0.0000
C12	DEP	STANDARD	1	21	C	4	MIL	0.0075	0.0000	0.0000
C12	DEP	STANDARD	1	21	D	0	MIL	0.0128	0.0000	0.0000
C12	DEP	STANDARD	1	21	D	1	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	21	D	2	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	21	D	3	MIL	0.0021	0.0000	0.0000
C12	DEP	STANDARD	1	21	D	4	MIL	0.0021	0.0000	0.0000
C12	DEP	STANDARD	1	21	E	0	MIL	0.0128	0.0000	0.0000
C12	DEP	STANDARD	1	21	E	1	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	21	E	2	MIL	0.0079	0.0000	0.0000
C12	DEP	STANDARD	1	21	E	3	MIL	0.0021	0.0000	0.0000
C12	DEP	STANDARD	1	21	E	4	MIL	0.0021	0.0000	0.0000
CL600	APP	STANDARD	1	03	A	0	GA	0.0164	0.0000	0.0007
CL600	APP	STANDARD	1	03	A	1	GA	0.0101	0.0000	0.0004
CL600	APP	STANDARD	1	03	A	2	GA	0.0101	0.0000	0.0004
CL600	APP	STANDARD	1	03	A	3	GA	0.0027	0.0000	0.0001
CL600	APP	STANDARD	1	03	A	4	GA	0.0027	0.0000	0.0001
CL600	APP	STANDARD	1	03	B	0	GA	0.0492	0.0000	0.0021
CL600	APP	STANDARD	1	03	B	1	GA	0.0303	0.0000	0.0013
CL600	APP	STANDARD	1	03	B	2	GA	0.0303	0.0000	0.0013
CL600	APP	STANDARD	1	03	B	3	GA	0.0082	0.0000	0.0003
CL600	APP	STANDARD	1	03	B	4	GA	0.0082	0.0000	0.0003
CL600	APP	STANDARD	1	03	C	0	GA	0.0164	0.0000	0.0007
CL600	APP	STANDARD	1	03	C	1	GA	0.0101	0.0000	0.0004
CL600	APP	STANDARD	1	03	C	2	GA	0.0101	0.0000	0.0004
CL600	APP	STANDARD	1	03	C	3	GA	0.0027	0.0000	0.0001
CL600	APP	STANDARD	1	03	C	4	GA	0.0027	0.0000	0.0001
CL600	APP	STANDARD	1	21	A	0	GA	0.0766	0.0000	0.0032
CL600	APP	STANDARD	1	21	A	1	GA	0.0575	0.0000	0.0024
CL600	APP	STANDARD	1	21	A	2	GA	0.0575	0.0000	0.0024
CL600	APP	STANDARD	1	21	A	3	GA	0.0230	0.0000	0.0010
CL600	APP	STANDARD	1	21	A	4	GA	0.0230	0.0000	0.0010
CL600	APP	STANDARD	1	21	A	5	GA	0.0038	0.0000	0.0002
CL600	APP	STANDARD	1	21	A	6	GA	0.0038	0.0000	0.0002
CL600	APP	STANDARD	1	21	B	0	GA	0.0670	0.0000	0.0028
CL600	APP	STANDARD	1	21	B	1	GA	0.0412	0.0000	0.0017
CL600	APP	STANDARD	1	21	B	2	GA	0.0412	0.0000	0.0017
CL600	APP	STANDARD	1	21	B	3	GA	0.0112	0.0000	0.0005
CL600	APP	STANDARD	1	21	B	4	GA	0.0112	0.0000	0.0005
CL600	APP	STANDARD	1	21	C	0	GA	0.0096	0.0000	0.0004
CL600	APP	STANDARD	1	21	C	1	GA	0.0059	0.0000	0.0002
CL600	APP	STANDARD	1	21	C	2	GA	0.0059	0.0000	0.0002
CL600	APP	STANDARD	1	21	C	3	GA	0.0016	0.0000	0.0001
CL600	APP	STANDARD	1	21	C	4	GA	0.0016	0.0000	0.0001
CL600	APP	STANDARD	1	21	D	0	GA	0.0096	0.0000	0.0004

CL600	APP	STANDARD	1	21	D	1	GA	0.0059	0.0000	0.0002
CL600	APP	STANDARD	1	21	D	2	GA	0.0059	0.0000	0.0002
CL600	APP	STANDARD	1	21	D	3	GA	0.0016	0.0000	0.0001
CL600	APP	STANDARD	1	21	D	4	GA	0.0016	0.0000	0.0001
CL600	APP	STANDARD	1	21	E	0	GA	0.0096	0.0000	0.0004
CL600	APP	STANDARD	1	21	E	1	GA	0.0059	0.0000	0.0002
CL600	APP	STANDARD	1	21	E	2	GA	0.0059	0.0000	0.0002
CL600	APP	STANDARD	1	21	E	3	GA	0.0016	0.0000	0.0001
CL600	APP	STANDARD	1	21	E	4	GA	0.0016	0.0000	0.0001
CL600	DEP	STANDARD	1	03	A	0	GA	0.0197	0.0000	0.0008
CL600	DEP	STANDARD	1	03	A	1	GA	0.0148	0.0000	0.0006
CL600	DEP	STANDARD	1	03	A	2	GA	0.0148	0.0000	0.0006
CL600	DEP	STANDARD	1	03	A	3	GA	0.0059	0.0000	0.0002
CL600	DEP	STANDARD	1	03	A	4	GA	0.0059	0.0000	0.0002
CL600	DEP	STANDARD	1	03	A	5	GA	0.0010	0.0000	0.0000
CL600	DEP	STANDARD	1	03	A	6	GA	0.0010	0.0000	0.0000
CL600	DEP	STANDARD	1	03	B	0	GA	0.0394	0.0000	0.0017
CL600	DEP	STANDARD	1	03	B	1	GA	0.0296	0.0000	0.0012
CL600	DEP	STANDARD	1	03	B	2	GA	0.0296	0.0000	0.0012
CL600	DEP	STANDARD	1	03	B	3	GA	0.0118	0.0000	0.0005
CL600	DEP	STANDARD	1	03	B	4	GA	0.0118	0.0000	0.0005
CL600	DEP	STANDARD	1	03	B	5	GA	0.0020	0.0000	0.0001
CL600	DEP	STANDARD	1	03	B	6	GA	0.0020	0.0000	0.0001
CL600	DEP	STANDARD	1	03	C	0	GA	0.0082	0.0000	0.0004
CL600	DEP	STANDARD	1	03	C	1	GA	0.0050	0.0000	0.0002
CL600	DEP	STANDARD	1	03	C	2	GA	0.0050	0.0000	0.0002
CL600	DEP	STANDARD	1	03	C	3	GA	0.0014	0.0000	0.0001
CL600	DEP	STANDARD	1	03	C	4	GA	0.0014	0.0000	0.0001
CL600	DEP	STANDARD	1	21	A	0	GA	0.0096	0.0000	0.0004
CL600	DEP	STANDARD	1	21	A	1	GA	0.0059	0.0000	0.0002
CL600	DEP	STANDARD	1	21	A	2	GA	0.0059	0.0000	0.0002
CL600	DEP	STANDARD	1	21	A	3	GA	0.0016	0.0000	0.0001
CL600	DEP	STANDARD	1	21	A	4	GA	0.0016	0.0000	0.0001
CL600	DEP	STANDARD	1	21	B	0	GA	0.0184	0.0000	0.0008
CL600	DEP	STANDARD	1	21	B	1	GA	0.0147	0.0000	0.0006
CL600	DEP	STANDARD	1	21	B	2	GA	0.0147	0.0000	0.0006
CL600	DEP	STANDARD	1	21	B	3	GA	0.0066	0.0000	0.0003
CL600	DEP	STANDARD	1	21	B	4	GA	0.0110	0.0000	0.0005
CL600	DEP	STANDARD	1	21	B	5	GA	0.0022	0.0000	0.0001
CL600	DEP	STANDARD	1	21	B	6	GA	0.0059	0.0000	0.0002
CL600	DEP	STANDARD	1	21	C	0	GA	0.0076	0.0000	0.0003
CL600	DEP	STANDARD	1	21	C	1	GA	0.0047	0.0000	0.0002
CL600	DEP	STANDARD	1	21	C	2	GA	0.0047	0.0000	0.0002
CL600	DEP	STANDARD	1	21	C	3	GA	0.0013	0.0000	0.0001
CL600	DEP	STANDARD	1	21	C	4	GA	0.0013	0.0000	0.0001
CL600	DEP	STANDARD	1	21	D	0	GA	0.0057	0.0000	0.0002
CL600	DEP	STANDARD	1	21	D	1	GA	0.0035	0.0000	0.0001
CL600	DEP	STANDARD	1	21	D	2	GA	0.0035	0.0000	0.0001
CL600	DEP	STANDARD	1	21	D	3	GA	0.0010	0.0000	0.0000
CL600	DEP	STANDARD	1	21	D	4	GA	0.0010	0.0000	0.0000
CL600	DEP	STANDARD	1	21	E	0	GA	0.0057	0.0000	0.0002
CL600	DEP	STANDARD	1	21	E	1	GA	0.0035	0.0000	0.0001
CL600	DEP	STANDARD	1	21	E	2	GA	0.0035	0.0000	0.0001
CL600	DEP	STANDARD	1	21	E	3	GA	0.0010	0.0000	0.0000
CL600	DEP	STANDARD	1	21	E	4	GA	0.0010	0.0000	0.0000
CL600	DEP	STANDARD	1	21	F	0	GA	0.1340	0.0000	0.0056
CL600	DEP	STANDARD	1	21	F	1	GA	0.0824	0.0000	0.0034

CL600	DEP	STANDARD	1	21	F	2	GA	0.0824	0.0000	0.0034
CL600	DEP	STANDARD	1	21	F	3	GA	0.0223	0.0000	0.0009
CL600	DEP	STANDARD	1	21	F	4	GA	0.0223	0.0000	0.0009
CL601	APP	STANDARD	1	03	A	0	GA	0.0870	0.0000	0.0156
CL601	APP	STANDARD	1	03	A	1	GA	0.0535	0.0000	0.0096
CL601	APP	STANDARD	1	03	A	2	GA	0.0535	0.0000	0.0096
CL601	APP	STANDARD	1	03	A	3	GA	0.0145	0.0000	0.0026
CL601	APP	STANDARD	1	03	A	4	GA	0.0145	0.0000	0.0026
CL601	APP	STANDARD	1	03	B	0	GA	0.2609	0.0000	0.0468
CL601	APP	STANDARD	1	03	B	1	GA	0.1606	0.0000	0.0288
CL601	APP	STANDARD	1	03	B	2	GA	0.1606	0.0000	0.0288
CL601	APP	STANDARD	1	03	B	3	GA	0.0435	0.0000	0.0078
CL601	APP	STANDARD	1	03	B	4	GA	0.0435	0.0000	0.0078
CL601	APP	STANDARD	1	03	C	0	GA	0.0870	0.0000	0.0156
CL601	APP	STANDARD	1	03	C	1	GA	0.0535	0.0000	0.0096
CL601	APP	STANDARD	1	03	C	2	GA	0.0535	0.0000	0.0096
CL601	APP	STANDARD	1	03	C	3	GA	0.0145	0.0000	0.0026
CL601	APP	STANDARD	1	03	C	4	GA	0.0145	0.0000	0.0026
CL601	APP	STANDARD	1	21	A	0	GA	0.4064	0.0000	0.0729
CL601	APP	STANDARD	1	21	A	1	GA	0.3050	0.0000	0.0547
CL601	APP	STANDARD	1	21	A	2	GA	0.3050	0.0000	0.0547
CL601	APP	STANDARD	1	21	A	3	GA	0.1220	0.0000	0.0219
CL601	APP	STANDARD	1	21	A	4	GA	0.1220	0.0000	0.0219
CL601	APP	STANDARD	1	21	A	5	GA	0.0203	0.0000	0.0036
CL601	APP	STANDARD	1	21	A	6	GA	0.0203	0.0000	0.0036
CL601	APP	STANDARD	1	21	B	0	GA	0.3552	0.0000	0.0636
CL601	APP	STANDARD	1	21	B	1	GA	0.2186	0.0000	0.0392
CL601	APP	STANDARD	1	21	B	2	GA	0.2186	0.0000	0.0392
CL601	APP	STANDARD	1	21	B	3	GA	0.0592	0.0000	0.0106
CL601	APP	STANDARD	1	21	B	4	GA	0.0592	0.0000	0.0106
CL601	APP	STANDARD	1	21	C	0	GA	0.0507	0.0000	0.0091
CL601	APP	STANDARD	1	21	C	1	GA	0.0312	0.0000	0.0056
CL601	APP	STANDARD	1	21	C	2	GA	0.0312	0.0000	0.0056
CL601	APP	STANDARD	1	21	C	3	GA	0.0085	0.0000	0.0015
CL601	APP	STANDARD	1	21	C	4	GA	0.0085	0.0000	0.0015
CL601	APP	STANDARD	1	21	D	0	GA	0.0507	0.0000	0.0091
CL601	APP	STANDARD	1	21	D	1	GA	0.0312	0.0000	0.0056
CL601	APP	STANDARD	1	21	D	2	GA	0.0312	0.0000	0.0056
CL601	APP	STANDARD	1	21	D	3	GA	0.0085	0.0000	0.0015
CL601	APP	STANDARD	1	21	D	4	GA	0.0085	0.0000	0.0015
CL601	APP	STANDARD	1	21	E	0	GA	0.0507	0.0000	0.0091
CL601	APP	STANDARD	1	21	E	1	GA	0.0312	0.0000	0.0056
CL601	APP	STANDARD	1	21	E	2	GA	0.0312	0.0000	0.0056
CL601	APP	STANDARD	1	21	E	3	GA	0.0085	0.0000	0.0015
CL601	APP	STANDARD	1	21	E	4	GA	0.0085	0.0000	0.0015
CL601	DEP	STANDARD	1	03	A	0	GA	0.0896	0.0000	0.0336
CL601	DEP	STANDARD	1	03	A	1	GA	0.0672	0.0000	0.0252
CL601	DEP	STANDARD	1	03	A	2	GA	0.0672	0.0000	0.0252
CL601	DEP	STANDARD	1	03	A	3	GA	0.0269	0.0000	0.0101
CL601	DEP	STANDARD	1	03	A	4	GA	0.0269	0.0000	0.0101
CL601	DEP	STANDARD	1	03	A	5	GA	0.0045	0.0000	0.0017
CL601	DEP	STANDARD	1	03	A	6	GA	0.0045	0.0000	0.0017
CL601	DEP	STANDARD	1	03	B	0	GA	0.1792	0.0000	0.0673
CL601	DEP	STANDARD	1	03	B	1	GA	0.1345	0.0000	0.0505
CL601	DEP	STANDARD	1	03	B	2	GA	0.1345	0.0000	0.0505
CL601	DEP	STANDARD	1	03	B	3	GA	0.0538	0.0000	0.0202
CL601	DEP	STANDARD	1	03	B	4	GA	0.0538	0.0000	0.0202

CL601	DEP	STANDARD	1	03	B	5	GA	0.0089	0.0000	0.0034
CL601	DEP	STANDARD	1	03	B	6	GA	0.0089	0.0000	0.0034
CL601	DEP	STANDARD	1	03	C	0	GA	0.0373	0.0000	0.0140
CL601	DEP	STANDARD	1	03	C	1	GA	0.0229	0.0000	0.0086
CL601	DEP	STANDARD	1	03	C	2	GA	0.0229	0.0000	0.0086
CL601	DEP	STANDARD	1	03	C	3	GA	0.0062	0.0000	0.0023
CL601	DEP	STANDARD	1	03	C	4	GA	0.0062	0.0000	0.0023
CL601	DEP	STANDARD	1	21	A	0	GA	0.0435	0.0000	0.0163
CL601	DEP	STANDARD	1	21	A	1	GA	0.0268	0.0000	0.0101
CL601	DEP	STANDARD	1	21	A	2	GA	0.0268	0.0000	0.0101
CL601	DEP	STANDARD	1	21	A	3	GA	0.0072	0.0000	0.0027
CL601	DEP	STANDARD	1	21	A	4	GA	0.0072	0.0000	0.0027
CL601	DEP	STANDARD	1	21	B	0	GA	0.0837	0.0000	0.0314
CL601	DEP	STANDARD	1	21	B	1	GA	0.0669	0.0000	0.0251
CL601	DEP	STANDARD	1	21	B	2	GA	0.0669	0.0000	0.0251
CL601	DEP	STANDARD	1	21	B	3	GA	0.0301	0.0000	0.0113
CL601	DEP	STANDARD	1	21	B	4	GA	0.0502	0.0000	0.0189
CL601	DEP	STANDARD	1	21	B	5	GA	0.0100	0.0000	0.0038
CL601	DEP	STANDARD	1	21	B	6	GA	0.0268	0.0000	0.0101
CL601	DEP	STANDARD	1	21	C	0	GA	0.0348	0.0000	0.0131
CL601	DEP	STANDARD	1	21	C	1	GA	0.0214	0.0000	0.0080
CL601	DEP	STANDARD	1	21	C	2	GA	0.0214	0.0000	0.0080
CL601	DEP	STANDARD	1	21	C	3	GA	0.0058	0.0000	0.0022
CL601	DEP	STANDARD	1	21	C	4	GA	0.0058	0.0000	0.0022
CL601	DEP	STANDARD	1	21	D	0	GA	0.0261	0.0000	0.0098
CL601	DEP	STANDARD	1	21	D	1	GA	0.0161	0.0000	0.0060
CL601	DEP	STANDARD	1	21	D	2	GA	0.0161	0.0000	0.0060
CL601	DEP	STANDARD	1	21	D	3	GA	0.0043	0.0000	0.0016
CL601	DEP	STANDARD	1	21	D	4	GA	0.0043	0.0000	0.0016
CL601	DEP	STANDARD	1	21	E	0	GA	0.0261	0.0000	0.0098
CL601	DEP	STANDARD	1	21	E	1	GA	0.0161	0.0000	0.0060
CL601	DEP	STANDARD	1	21	E	2	GA	0.0161	0.0000	0.0060
CL601	DEP	STANDARD	1	21	E	3	GA	0.0043	0.0000	0.0016
CL601	DEP	STANDARD	1	21	E	4	GA	0.0043	0.0000	0.0016
CL601	DEP	STANDARD	1	21	F	0	GA	0.6090	0.0000	0.2287
CL601	DEP	STANDARD	1	21	F	1	GA	0.3748	0.0000	0.1407
CL601	DEP	STANDARD	1	21	F	2	GA	0.3748	0.0000	0.1407
CL601	DEP	STANDARD	1	21	F	3	GA	0.1015	0.0000	0.0381
CL601	DEP	STANDARD	1	21	F	4	GA	0.1015	0.0000	0.0381
CNA441	APP	STANDARD	1	03	A	0	COM	0.1416	0.0000	0.0208
CNA441	APP	STANDARD	1	03	A	1	COM	0.0871	0.0000	0.0128
CNA441	APP	STANDARD	1	03	A	2	COM	0.0871	0.0000	0.0128
CNA441	APP	STANDARD	1	03	A	3	COM	0.0236	0.0000	0.0035
CNA441	APP	STANDARD	1	03	A	4	COM	0.0236	0.0000	0.0035
CNA441	APP	STANDARD	1	03	B	0	COM	0.4247	0.0000	0.0625
CNA441	APP	STANDARD	1	03	B	1	COM	0.2613	0.0000	0.0385
CNA441	APP	STANDARD	1	03	B	2	COM	0.2613	0.0000	0.0385
CNA441	APP	STANDARD	1	03	B	3	COM	0.0708	0.0000	0.0104
CNA441	APP	STANDARD	1	03	B	4	COM	0.0708	0.0000	0.0104
CNA441	APP	STANDARD	1	03	C	0	COM	0.1416	0.0000	0.0208
CNA441	APP	STANDARD	1	03	C	1	COM	0.0871	0.0000	0.0128
CNA441	APP	STANDARD	1	03	C	2	COM	0.0871	0.0000	0.0128
CNA441	APP	STANDARD	1	03	C	3	COM	0.0236	0.0000	0.0035
CNA441	APP	STANDARD	1	03	C	4	COM	0.0236	0.0000	0.0035
CNA441	APP	STANDARD	1	21	A	0	COM	0.1984	0.0000	0.0292
CNA441	APP	STANDARD	1	21	A	1	COM	0.1489	0.0000	0.0219
CNA441	APP	STANDARD	1	21	A	2	COM	0.1489	0.0000	0.0219

CNA441	APP	STANDARD	1	21	A	3	COM	0.0596	0.0000	0.0088
CNA441	APP	STANDARD	1	21	A	4	COM	0.0596	0.0000	0.0088
CNA441	APP	STANDARD	1	21	A	5	COM	0.0099	0.0000	0.0015
CNA441	APP	STANDARD	1	21	A	6	COM	0.0099	0.0000	0.0015
CNA441	APP	STANDARD	1	21	B	0	COM	0.9909	0.0000	0.1458
CNA441	APP	STANDARD	1	21	B	1	COM	0.6098	0.0000	0.0897
CNA441	APP	STANDARD	1	21	B	2	COM	0.6098	0.0000	0.0897
CNA441	APP	STANDARD	1	21	B	3	COM	0.1652	0.0000	0.0243
CNA441	APP	STANDARD	1	21	B	4	COM	0.1652	0.0000	0.0243
CNA441	APP	STANDARD	1	21	C	0	COM	0.1652	0.0000	0.0243
CNA441	APP	STANDARD	1	21	C	1	COM	0.1016	0.0000	0.0150
CNA441	APP	STANDARD	1	21	C	2	COM	0.1016	0.0000	0.0150
CNA441	APP	STANDARD	1	21	C	3	COM	0.0275	0.0000	0.0040
CNA441	APP	STANDARD	1	21	C	4	COM	0.0275	0.0000	0.0040
CNA441	APP	STANDARD	1	21	D	0	COM	0.1652	0.0000	0.0243
CNA441	APP	STANDARD	1	21	D	1	COM	0.1016	0.0000	0.0150
CNA441	APP	STANDARD	1	21	D	2	COM	0.1016	0.0000	0.0150
CNA441	APP	STANDARD	1	21	D	3	COM	0.0275	0.0000	0.0040
CNA441	APP	STANDARD	1	21	D	4	COM	0.0275	0.0000	0.0040
CNA441	APP	STANDARD	1	21	E	0	COM	0.0826	0.0000	0.0122
CNA441	APP	STANDARD	1	21	E	1	COM	0.0508	0.0000	0.0075
CNA441	APP	STANDARD	1	21	E	2	COM	0.0508	0.0000	0.0075
CNA441	APP	STANDARD	1	21	E	3	COM	0.0138	0.0000	0.0020
CNA441	APP	STANDARD	1	21	E	4	COM	0.0138	0.0000	0.0020
CNA441	DEP	STANDARD	1	03	A	0	COM	0.1134	0.0000	0.0167
CNA441	DEP	STANDARD	1	03	A	1	COM	0.0851	0.0000	0.0125
CNA441	DEP	STANDARD	1	03	A	2	COM	0.0851	0.0000	0.0125
CNA441	DEP	STANDARD	1	03	A	3	COM	0.0340	0.0000	0.0050
CNA441	DEP	STANDARD	1	03	A	4	COM	0.0340	0.0000	0.0050
CNA441	DEP	STANDARD	1	03	A	5	COM	0.0057	0.0000	0.0008
CNA441	DEP	STANDARD	1	03	A	6	COM	0.0057	0.0000	0.0008
CNA441	DEP	STANDARD	1	03	B	0	COM	0.3402	0.0000	0.0501
CNA441	DEP	STANDARD	1	03	B	1	COM	0.2552	0.0000	0.0376
CNA441	DEP	STANDARD	1	03	B	2	COM	0.2552	0.0000	0.0376
CNA441	DEP	STANDARD	1	03	B	3	COM	0.1021	0.0000	0.0150
CNA441	DEP	STANDARD	1	03	B	4	COM	0.1021	0.0000	0.0150
CNA441	DEP	STANDARD	1	03	B	5	COM	0.0170	0.0000	0.0025
CNA441	DEP	STANDARD	1	03	B	6	COM	0.0170	0.0000	0.0025
CNA441	DEP	STANDARD	1	03	C	0	COM	0.1416	0.0000	0.0208
CNA441	DEP	STANDARD	1	03	C	1	COM	0.0871	0.0000	0.0128
CNA441	DEP	STANDARD	1	03	C	2	COM	0.0871	0.0000	0.0128
CNA441	DEP	STANDARD	1	03	C	3	COM	0.0236	0.0000	0.0035
CNA441	DEP	STANDARD	1	03	C	4	COM	0.0236	0.0000	0.0035
CNA441	DEP	STANDARD	1	21	A	0	COM	0.0826	0.0000	0.0122
CNA441	DEP	STANDARD	1	21	A	1	COM	0.0508	0.0000	0.0075
CNA441	DEP	STANDARD	1	21	A	2	COM	0.0508	0.0000	0.0075
CNA441	DEP	STANDARD	1	21	A	3	COM	0.0138	0.0000	0.0020
CNA441	DEP	STANDARD	1	21	A	4	COM	0.0138	0.0000	0.0020
CNA441	DEP	STANDARD	1	21	B	0	COM	0.4764	0.0000	0.0701
CNA441	DEP	STANDARD	1	21	B	1	COM	0.3811	0.0000	0.0561
CNA441	DEP	STANDARD	1	21	B	2	COM	0.3811	0.0000	0.0561
CNA441	DEP	STANDARD	1	21	B	3	COM	0.1715	0.0000	0.0252
CNA441	DEP	STANDARD	1	21	B	4	COM	0.2858	0.0000	0.0421
CNA441	DEP	STANDARD	1	21	B	5	COM	0.0572	0.0000	0.0084
CNA441	DEP	STANDARD	1	21	B	6	COM	0.1524	0.0000	0.0224
CNA441	DEP	STANDARD	1	21	C	0	COM	0.4129	0.0000	0.0608
CNA441	DEP	STANDARD	1	21	C	1	COM	0.2541	0.0000	0.0374

CNA441	DEP	STANDARD	1	21	C	2	COM	0.2541	0.0000	0.0374
CNA441	DEP	STANDARD	1	21	C	3	COM	0.0688	0.0000	0.0101
CNA441	DEP	STANDARD	1	21	C	4	COM	0.0688	0.0000	0.0101
CNA441	DEP	STANDARD	1	21	D	0	COM	0.1652	0.0000	0.0243
CNA441	DEP	STANDARD	1	21	D	1	COM	0.1016	0.0000	0.0150
CNA441	DEP	STANDARD	1	21	D	2	COM	0.1016	0.0000	0.0150
CNA441	DEP	STANDARD	1	21	D	3	COM	0.0275	0.0000	0.0040
CNA441	DEP	STANDARD	1	21	D	4	COM	0.0275	0.0000	0.0040
CNA441	DEP	STANDARD	1	21	E	0	COM	0.1652	0.0000	0.0243
CNA441	DEP	STANDARD	1	21	E	1	COM	0.1016	0.0000	0.0150
CNA441	DEP	STANDARD	1	21	E	2	COM	0.1016	0.0000	0.0150
CNA441	DEP	STANDARD	1	21	E	3	COM	0.0275	0.0000	0.0040
CNA441	DEP	STANDARD	1	21	E	4	COM	0.0275	0.0000	0.0040
CNA441	DEP	STANDARD	1	21	F	0	COM	0.0826	0.0000	0.0122
CNA441	DEP	STANDARD	1	21	F	1	COM	0.0508	0.0000	0.0075
CNA441	DEP	STANDARD	1	21	F	2	COM	0.0508	0.0000	0.0075
CNA441	DEP	STANDARD	1	21	F	3	COM	0.0138	0.0000	0.0020
CNA441	DEP	STANDARD	1	21	F	4	COM	0.0138	0.0000	0.0020
CNA441	TGO	STANDARD	1	03	A	0	COM	0.0439	0.0000	0.0043
CNA441	TGO	STANDARD	1	03	A	1	COM	0.0329	0.0000	0.0033
CNA441	TGO	STANDARD	1	03	A	2	COM	0.0329	0.0000	0.0033
CNA441	TGO	STANDARD	1	03	A	3	COM	0.0132	0.0000	0.0013
CNA441	TGO	STANDARD	1	03	A	4	COM	0.0132	0.0000	0.0013
CNA441	TGO	STANDARD	1	03	A	5	COM	0.0022	0.0000	0.0002
CNA441	TGO	STANDARD	1	03	A	6	COM	0.0022	0.0000	0.0002
CNA441	TGO	STANDARD	1	21	A	0	COM	0.1754	0.0000	0.0173
CNA441	TGO	STANDARD	1	21	A	1	COM	0.1316	0.0000	0.0130
CNA441	TGO	STANDARD	1	21	A	2	COM	0.1316	0.0000	0.0130
CNA441	TGO	STANDARD	1	21	A	3	COM	0.0527	0.0000	0.0052
CNA441	TGO	STANDARD	1	21	A	4	COM	0.0527	0.0000	0.0052
CNA441	TGO	STANDARD	1	21	A	5	COM	0.0088	0.0000	0.0009
CNA441	TGO	STANDARD	1	21	A	6	COM	0.0088	0.0000	0.0009
CNA500	APP	STANDARD	1	03	A	0	GA	0.0164	0.0000	0.0007
CNA500	APP	STANDARD	1	03	A	1	GA	0.0101	0.0000	0.0004
CNA500	APP	STANDARD	1	03	A	2	GA	0.0101	0.0000	0.0004
CNA500	APP	STANDARD	1	03	A	3	GA	0.0027	0.0000	0.0001
CNA500	APP	STANDARD	1	03	A	4	GA	0.0027	0.0000	0.0001
CNA500	APP	STANDARD	1	03	B	0	GA	0.0492	0.0000	0.0021
CNA500	APP	STANDARD	1	03	B	1	GA	0.0303	0.0000	0.0013
CNA500	APP	STANDARD	1	03	B	2	GA	0.0303	0.0000	0.0013
CNA500	APP	STANDARD	1	03	B	3	GA	0.0082	0.0000	0.0003
CNA500	APP	STANDARD	1	03	B	4	GA	0.0082	0.0000	0.0003
CNA500	APP	STANDARD	1	03	C	0	GA	0.0164	0.0000	0.0007
CNA500	APP	STANDARD	1	03	C	1	GA	0.0101	0.0000	0.0004
CNA500	APP	STANDARD	1	03	C	2	GA	0.0101	0.0000	0.0004
CNA500	APP	STANDARD	1	03	C	3	GA	0.0027	0.0000	0.0001
CNA500	APP	STANDARD	1	03	C	4	GA	0.0027	0.0000	0.0001
CNA500	APP	STANDARD	1	21	A	0	GA	0.0766	0.0000	0.0032
CNA500	APP	STANDARD	1	21	A	1	GA	0.0575	0.0000	0.0024
CNA500	APP	STANDARD	1	21	A	2	GA	0.0575	0.0000	0.0024
CNA500	APP	STANDARD	1	21	A	3	GA	0.0230	0.0000	0.0010
CNA500	APP	STANDARD	1	21	A	4	GA	0.0230	0.0000	0.0010
CNA500	APP	STANDARD	1	21	A	5	GA	0.0038	0.0000	0.0002
CNA500	APP	STANDARD	1	21	A	6	GA	0.0038	0.0000	0.0002
CNA500	APP	STANDARD	1	21	B	0	GA	0.0670	0.0000	0.0028
CNA500	APP	STANDARD	1	21	B	1	GA	0.0412	0.0000	0.0017
CNA500	APP	STANDARD	1	21	B	2	GA	0.0412	0.0000	0.0017

CNA500	APP	STANDARD	1	21	B	3	GA	0.0112	0.0000	0.0005
CNA500	APP	STANDARD	1	21	B	4	GA	0.0112	0.0000	0.0005
CNA500	APP	STANDARD	1	21	C	0	GA	0.0096	0.0000	0.0004
CNA500	APP	STANDARD	1	21	C	1	GA	0.0059	0.0000	0.0002
CNA500	APP	STANDARD	1	21	C	2	GA	0.0059	0.0000	0.0002
CNA500	APP	STANDARD	1	21	C	3	GA	0.0016	0.0000	0.0001
CNA500	APP	STANDARD	1	21	C	4	GA	0.0016	0.0000	0.0001
CNA500	APP	STANDARD	1	21	D	0	GA	0.0096	0.0000	0.0004
CNA500	APP	STANDARD	1	21	D	1	GA	0.0059	0.0000	0.0002
CNA500	APP	STANDARD	1	21	D	2	GA	0.0059	0.0000	0.0002
CNA500	APP	STANDARD	1	21	D	3	GA	0.0016	0.0000	0.0001
CNA500	APP	STANDARD	1	21	D	4	GA	0.0016	0.0000	0.0001
CNA500	APP	STANDARD	1	21	E	0	GA	0.0096	0.0000	0.0004
CNA500	APP	STANDARD	1	21	E	1	GA	0.0059	0.0000	0.0002
CNA500	APP	STANDARD	1	21	E	2	GA	0.0059	0.0000	0.0002
CNA500	APP	STANDARD	1	21	E	3	GA	0.0016	0.0000	0.0001
CNA500	APP	STANDARD	1	21	E	4	GA	0.0016	0.0000	0.0001
CNA500	DEP	STANDARD	1	03	A	0	GA	0.0197	0.0000	0.0008
CNA500	DEP	STANDARD	1	03	A	1	GA	0.0148	0.0000	0.0006
CNA500	DEP	STANDARD	1	03	A	2	GA	0.0148	0.0000	0.0006
CNA500	DEP	STANDARD	1	03	A	3	GA	0.0059	0.0000	0.0002
CNA500	DEP	STANDARD	1	03	A	4	GA	0.0059	0.0000	0.0002
CNA500	DEP	STANDARD	1	03	A	5	GA	0.0010	0.0000	0.0000
CNA500	DEP	STANDARD	1	03	A	6	GA	0.0010	0.0000	0.0000
CNA500	DEP	STANDARD	1	03	B	0	GA	0.0394	0.0000	0.0017
CNA500	DEP	STANDARD	1	03	B	1	GA	0.0296	0.0000	0.0012
CNA500	DEP	STANDARD	1	03	B	2	GA	0.0296	0.0000	0.0012
CNA500	DEP	STANDARD	1	03	B	3	GA	0.0118	0.0000	0.0005
CNA500	DEP	STANDARD	1	03	B	4	GA	0.0118	0.0000	0.0005
CNA500	DEP	STANDARD	1	03	B	5	GA	0.0020	0.0000	0.0001
CNA500	DEP	STANDARD	1	03	B	6	GA	0.0020	0.0000	0.0001
CNA500	DEP	STANDARD	1	03	C	0	GA	0.0082	0.0000	0.0004
CNA500	DEP	STANDARD	1	03	C	1	GA	0.0050	0.0000	0.0002
CNA500	DEP	STANDARD	1	03	C	2	GA	0.0050	0.0000	0.0002
CNA500	DEP	STANDARD	1	03	C	3	GA	0.0014	0.0000	0.0001
CNA500	DEP	STANDARD	1	03	C	4	GA	0.0014	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	A	0	GA	0.0096	0.0000	0.0004
CNA500	DEP	STANDARD	1	21	A	1	GA	0.0059	0.0000	0.0002
CNA500	DEP	STANDARD	1	21	A	2	GA	0.0059	0.0000	0.0002
CNA500	DEP	STANDARD	1	21	A	3	GA	0.0016	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	A	4	GA	0.0016	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	B	0	GA	0.0184	0.0000	0.0008
CNA500	DEP	STANDARD	1	21	B	1	GA	0.0147	0.0000	0.0006
CNA500	DEP	STANDARD	1	21	B	2	GA	0.0147	0.0000	0.0006
CNA500	DEP	STANDARD	1	21	B	3	GA	0.0066	0.0000	0.0003
CNA500	DEP	STANDARD	1	21	B	4	GA	0.0110	0.0000	0.0005
CNA500	DEP	STANDARD	1	21	B	5	GA	0.0022	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	B	6	GA	0.0059	0.0000	0.0002
CNA500	DEP	STANDARD	1	21	C	0	GA	0.0076	0.0000	0.0003
CNA500	DEP	STANDARD	1	21	C	1	GA	0.0047	0.0000	0.0002
CNA500	DEP	STANDARD	1	21	C	2	GA	0.0047	0.0000	0.0002
CNA500	DEP	STANDARD	1	21	C	3	GA	0.0013	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	C	4	GA	0.0013	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	D	0	GA	0.0057	0.0000	0.0002
CNA500	DEP	STANDARD	1	21	D	1	GA	0.0035	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	D	2	GA	0.0035	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	D	3	GA	0.0010	0.0000	0.0000

CNA500	DEP	STANDARD	1	21	D	4	GA	0.0010	0.0000	0.0000
CNA500	DEP	STANDARD	1	21	E	0	GA	0.0057	0.0000	0.0002
CNA500	DEP	STANDARD	1	21	E	1	GA	0.0035	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	E	2	GA	0.0035	0.0000	0.0001
CNA500	DEP	STANDARD	1	21	E	3	GA	0.0010	0.0000	0.0000
CNA500	DEP	STANDARD	1	21	E	4	GA	0.0010	0.0000	0.0000
CNA500	DEP	STANDARD	1	21	F	0	GA	0.1340	0.0000	0.0056
CNA500	DEP	STANDARD	1	21	F	1	GA	0.0824	0.0000	0.0034
CNA500	DEP	STANDARD	1	21	F	2	GA	0.0824	0.0000	0.0034
CNA500	DEP	STANDARD	1	21	F	3	GA	0.0223	0.0000	0.0009
CNA500	DEP	STANDARD	1	21	F	4	GA	0.0223	0.0000	0.0009
DHC8	APP	STANDARD	1	03	A	0	COM	0.0301	0.0000	0.0054
DHC8	APP	STANDARD	1	03	A	1	COM	0.0185	0.0000	0.0033
DHC8	APP	STANDARD	1	03	A	2	COM	0.0185	0.0000	0.0033
DHC8	APP	STANDARD	1	03	A	3	COM	0.0050	0.0000	0.0009
DHC8	APP	STANDARD	1	03	A	4	COM	0.0050	0.0000	0.0009
DHC8	APP	STANDARD	1	03	B	0	COM	0.0904	0.0000	0.0162
DHC8	APP	STANDARD	1	03	B	1	COM	0.0556	0.0000	0.0100
DHC8	APP	STANDARD	1	03	B	2	COM	0.0556	0.0000	0.0100
DHC8	APP	STANDARD	1	03	B	3	COM	0.0151	0.0000	0.0027
DHC8	APP	STANDARD	1	03	B	4	COM	0.0151	0.0000	0.0027
DHC8	APP	STANDARD	1	03	C	0	COM	0.0301	0.0000	0.0054
DHC8	APP	STANDARD	1	03	C	1	COM	0.0185	0.0000	0.0033
DHC8	APP	STANDARD	1	03	C	2	COM	0.0185	0.0000	0.0033
DHC8	APP	STANDARD	1	03	C	3	COM	0.0050	0.0000	0.0009
DHC8	APP	STANDARD	1	03	C	4	COM	0.0050	0.0000	0.0009
DHC8	APP	STANDARD	1	21	A	0	COM	0.1407	0.0000	0.0252
DHC8	APP	STANDARD	1	21	A	1	COM	0.1056	0.0000	0.0189
DHC8	APP	STANDARD	1	21	A	2	COM	0.1056	0.0000	0.0189
DHC8	APP	STANDARD	1	21	A	3	COM	0.0423	0.0000	0.0076
DHC8	APP	STANDARD	1	21	A	4	COM	0.0423	0.0000	0.0076
DHC8	APP	STANDARD	1	21	A	5	COM	0.0070	0.0000	0.0013
DHC8	APP	STANDARD	1	21	A	6	COM	0.0070	0.0000	0.0013
DHC8	APP	STANDARD	1	21	B	0	COM	0.1230	0.0000	0.0220
DHC8	APP	STANDARD	1	21	B	1	COM	0.0757	0.0000	0.0136
DHC8	APP	STANDARD	1	21	B	2	COM	0.0757	0.0000	0.0136
DHC8	APP	STANDARD	1	21	B	3	COM	0.0205	0.0000	0.0037
DHC8	APP	STANDARD	1	21	B	4	COM	0.0205	0.0000	0.0037
DHC8	APP	STANDARD	1	21	C	0	COM	0.0176	0.0000	0.0032
DHC8	APP	STANDARD	1	21	C	1	COM	0.0108	0.0000	0.0019
DHC8	APP	STANDARD	1	21	C	2	COM	0.0108	0.0000	0.0019
DHC8	APP	STANDARD	1	21	C	3	COM	0.0029	0.0000	0.0005
DHC8	APP	STANDARD	1	21	C	4	COM	0.0029	0.0000	0.0005
DHC8	APP	STANDARD	1	21	D	0	COM	0.0176	0.0000	0.0032
DHC8	APP	STANDARD	1	21	D	1	COM	0.0108	0.0000	0.0019
DHC8	APP	STANDARD	1	21	D	2	COM	0.0108	0.0000	0.0019
DHC8	APP	STANDARD	1	21	D	3	COM	0.0029	0.0000	0.0005
DHC8	APP	STANDARD	1	21	D	4	COM	0.0029	0.0000	0.0005
DHC8	APP	STANDARD	1	21	E	0	COM	0.0176	0.0000	0.0032
DHC8	APP	STANDARD	1	21	E	1	COM	0.0108	0.0000	0.0019
DHC8	APP	STANDARD	1	21	E	2	COM	0.0108	0.0000	0.0019
DHC8	APP	STANDARD	1	21	E	3	COM	0.0029	0.0000	0.0005
DHC8	APP	STANDARD	1	21	E	4	COM	0.0029	0.0000	0.0005
DHC8	DEP	STANDARD	1	03	A	0	COM	0.0310	0.0000	0.0117
DHC8	DEP	STANDARD	1	03	A	1	COM	0.0233	0.0000	0.0087
DHC8	DEP	STANDARD	1	03	A	2	COM	0.0233	0.0000	0.0087
DHC8	DEP	STANDARD	1	03	A	3	COM	0.0093	0.0000	0.0035

DHC8	DEP	STANDARD	1	03	A	4	COM	0.0093	0.0000	0.0035
DHC8	DEP	STANDARD	1	03	A	5	COM	0.0015	0.0000	0.0006
DHC8	DEP	STANDARD	1	03	A	6	COM	0.0015	0.0000	0.0006
DHC8	DEP	STANDARD	1	03	B	0	COM	0.0620	0.0000	0.0233
DHC8	DEP	STANDARD	1	03	B	1	COM	0.0466	0.0000	0.0175
DHC8	DEP	STANDARD	1	03	B	2	COM	0.0466	0.0000	0.0175
DHC8	DEP	STANDARD	1	03	B	3	COM	0.0186	0.0000	0.0070
DHC8	DEP	STANDARD	1	03	B	4	COM	0.0186	0.0000	0.0070
DHC8	DEP	STANDARD	1	03	B	5	COM	0.0031	0.0000	0.0012
DHC8	DEP	STANDARD	1	03	B	6	COM	0.0031	0.0000	0.0012
DHC8	DEP	STANDARD	1	03	C	0	COM	0.0129	0.0000	0.0048
DHC8	DEP	STANDARD	1	03	C	1	COM	0.0079	0.0000	0.0030
DHC8	DEP	STANDARD	1	03	C	2	COM	0.0079	0.0000	0.0030
DHC8	DEP	STANDARD	1	03	C	3	COM	0.0022	0.0000	0.0008
DHC8	DEP	STANDARD	1	03	C	4	COM	0.0022	0.0000	0.0008
DHC8	DEP	STANDARD	1	21	A	0	COM	0.0151	0.0000	0.0057
DHC8	DEP	STANDARD	1	21	A	1	COM	0.0093	0.0000	0.0035
DHC8	DEP	STANDARD	1	21	A	2	COM	0.0093	0.0000	0.0035
DHC8	DEP	STANDARD	1	21	A	3	COM	0.0025	0.0000	0.0009
DHC8	DEP	STANDARD	1	21	A	4	COM	0.0025	0.0000	0.0009
DHC8	DEP	STANDARD	1	21	B	0	COM	0.0290	0.0000	0.0109
DHC8	DEP	STANDARD	1	21	B	1	COM	0.0232	0.0000	0.0087
DHC8	DEP	STANDARD	1	21	B	2	COM	0.0232	0.0000	0.0087
DHC8	DEP	STANDARD	1	21	B	3	COM	0.0104	0.0000	0.0039
DHC8	DEP	STANDARD	1	21	B	4	COM	0.0174	0.0000	0.0065
DHC8	DEP	STANDARD	1	21	B	5	COM	0.0035	0.0000	0.0013
DHC8	DEP	STANDARD	1	21	B	6	COM	0.0093	0.0000	0.0035
DHC8	DEP	STANDARD	1	21	C	0	COM	0.0121	0.0000	0.0045
DHC8	DEP	STANDARD	1	21	C	1	COM	0.0074	0.0000	0.0028
DHC8	DEP	STANDARD	1	21	C	2	COM	0.0074	0.0000	0.0028
DHC8	DEP	STANDARD	1	21	C	3	COM	0.0020	0.0000	0.0008
DHC8	DEP	STANDARD	1	21	C	4	COM	0.0020	0.0000	0.0008
DHC8	DEP	STANDARD	1	21	D	0	COM	0.0090	0.0000	0.0034
DHC8	DEP	STANDARD	1	21	D	1	COM	0.0056	0.0000	0.0021
DHC8	DEP	STANDARD	1	21	D	2	COM	0.0056	0.0000	0.0021
DHC8	DEP	STANDARD	1	21	D	3	COM	0.0015	0.0000	0.0006
DHC8	DEP	STANDARD	1	21	D	4	COM	0.0015	0.0000	0.0006
DHC8	DEP	STANDARD	1	21	E	0	COM	0.0090	0.0000	0.0034
DHC8	DEP	STANDARD	1	21	E	1	COM	0.0056	0.0000	0.0021
DHC8	DEP	STANDARD	1	21	E	2	COM	0.0056	0.0000	0.0021
DHC8	DEP	STANDARD	1	21	E	3	COM	0.0015	0.0000	0.0006
DHC8	DEP	STANDARD	1	21	E	4	COM	0.0015	0.0000	0.0006
DHC8	DEP	STANDARD	1	21	F	0	COM	0.2109	0.0000	0.0792
DHC8	DEP	STANDARD	1	21	F	1	COM	0.1298	0.0000	0.0487
DHC8	DEP	STANDARD	1	21	F	2	COM	0.1298	0.0000	0.0487
DHC8	DEP	STANDARD	1	21	F	3	COM	0.0351	0.0000	0.0132
DHC8	DEP	STANDARD	1	21	F	4	COM	0.0351	0.0000	0.0132
GASEPF	APP	STANDARD	2	03	A	0	GA	0.4155	0.0000	0.0280
GASEPF	APP	STANDARD	2	03	A	1	GA	0.2557	0.0000	0.0172
GASEPF	APP	STANDARD	2	03	A	2	GA	0.2557	0.0000	0.0172
GASEPF	APP	STANDARD	2	03	A	3	GA	0.0692	0.0000	0.0047
GASEPF	APP	STANDARD	2	03	A	4	GA	0.0692	0.0000	0.0047
GASEPF	APP	STANDARD	2	03	B	0	GA	1.2464	0.0000	0.0839
GASEPF	APP	STANDARD	2	03	B	1	GA	0.7670	0.0000	0.0516
GASEPF	APP	STANDARD	2	03	B	2	GA	0.7670	0.0000	0.0516
GASEPF	APP	STANDARD	2	03	B	3	GA	0.2077	0.0000	0.0140
GASEPF	APP	STANDARD	2	03	B	4	GA	0.2077	0.0000	0.0140

GASEPF	APP	STANDARD	2	03	C	0	GA	0.4155	0.0000	0.0280
GASEPF	APP	STANDARD	2	03	C	1	GA	0.2557	0.0000	0.0172
GASEPF	APP	STANDARD	2	03	C	2	GA	0.2557	0.0000	0.0172
GASEPF	APP	STANDARD	2	03	C	3	GA	0.0692	0.0000	0.0047
GASEPF	APP	STANDARD	2	03	C	4	GA	0.0692	0.0000	0.0047
GASEPF	APP	STANDARD	2	21	A	0	GA	0.5824	0.0000	0.0392
GASEPF	APP	STANDARD	2	21	A	1	GA	0.4370	0.0000	0.0294
GASEPF	APP	STANDARD	2	21	A	2	GA	0.4370	0.0000	0.0294
GASEPF	APP	STANDARD	2	21	A	3	GA	0.1749	0.0000	0.0118
GASEPF	APP	STANDARD	2	21	A	4	GA	0.1749	0.0000	0.0118
GASEPF	APP	STANDARD	2	21	A	5	GA	0.0291	0.0000	0.0020
GASEPF	APP	STANDARD	2	21	A	6	GA	0.0291	0.0000	0.0020
GASEPF	APP	STANDARD	2	21	B	0	GA	2.9084	0.0000	0.1958
GASEPF	APP	STANDARD	2	21	B	1	GA	1.7898	0.0000	0.1205
GASEPF	APP	STANDARD	2	21	B	2	GA	1.7898	0.0000	0.1205
GASEPF	APP	STANDARD	2	21	B	3	GA	0.4847	0.0000	0.0326
GASEPF	APP	STANDARD	2	21	B	4	GA	0.4847	0.0000	0.0326
GASEPF	APP	STANDARD	2	21	C	0	GA	0.4847	0.0000	0.0326
GASEPF	APP	STANDARD	2	21	C	1	GA	0.2983	0.0000	0.0201
GASEPF	APP	STANDARD	2	21	C	2	GA	0.2983	0.0000	0.0201
GASEPF	APP	STANDARD	2	21	C	3	GA	0.0808	0.0000	0.0054
GASEPF	APP	STANDARD	2	21	C	4	GA	0.0808	0.0000	0.0054
GASEPF	APP	STANDARD	2	21	D	0	GA	0.4847	0.0000	0.0326
GASEPF	APP	STANDARD	2	21	D	1	GA	0.2983	0.0000	0.0201
GASEPF	APP	STANDARD	2	21	D	2	GA	0.2983	0.0000	0.0201
GASEPF	APP	STANDARD	2	21	D	3	GA	0.0808	0.0000	0.0054
GASEPF	APP	STANDARD	2	21	D	4	GA	0.0808	0.0000	0.0054
GASEPF	APP	STANDARD	2	21	E	0	GA	0.2424	0.0000	0.0163
GASEPF	APP	STANDARD	2	21	E	1	GA	0.1492	0.0000	0.0100
GASEPF	APP	STANDARD	2	21	E	2	GA	0.1492	0.0000	0.0100
GASEPF	APP	STANDARD	2	21	E	3	GA	0.0404	0.0000	0.0027
GASEPF	APP	STANDARD	2	21	E	4	GA	0.0404	0.0000	0.0027
GASEPF	DEP	STANDARD	1	03	A	0	GA	0.3328	0.0000	0.0224
GASEPF	DEP	STANDARD	1	03	A	1	GA	0.2497	0.0000	0.0168
GASEPF	DEP	STANDARD	1	03	A	2	GA	0.2497	0.0000	0.0168
GASEPF	DEP	STANDARD	1	03	A	3	GA	0.0999	0.0000	0.0067
GASEPF	DEP	STANDARD	1	03	A	4	GA	0.0999	0.0000	0.0067
GASEPF	DEP	STANDARD	1	03	A	5	GA	0.0166	0.0000	0.0011
GASEPF	DEP	STANDARD	1	03	A	6	GA	0.0166	0.0000	0.0011
GASEPF	DEP	STANDARD	1	03	B	0	GA	0.9984	0.0000	0.0672
GASEPF	DEP	STANDARD	1	03	B	1	GA	0.7491	0.0000	0.0504
GASEPF	DEP	STANDARD	1	03	B	2	GA	0.7491	0.0000	0.0504
GASEPF	DEP	STANDARD	1	03	B	3	GA	0.2998	0.0000	0.0202
GASEPF	DEP	STANDARD	1	03	B	4	GA	0.2998	0.0000	0.0202
GASEPF	DEP	STANDARD	1	03	B	5	GA	0.0499	0.0000	0.0034
GASEPF	DEP	STANDARD	1	03	B	6	GA	0.0499	0.0000	0.0034
GASEPF	DEP	STANDARD	1	03	C	0	GA	0.4155	0.0000	0.0280
GASEPF	DEP	STANDARD	1	03	C	1	GA	0.2557	0.0000	0.0172
GASEPF	DEP	STANDARD	1	03	C	2	GA	0.2557	0.0000	0.0172
GASEPF	DEP	STANDARD	1	03	C	3	GA	0.0692	0.0000	0.0047
GASEPF	DEP	STANDARD	1	03	C	4	GA	0.0692	0.0000	0.0047
GASEPF	DEP	STANDARD	1	21	A	0	GA	0.2424	0.0000	0.0163
GASEPF	DEP	STANDARD	1	21	A	1	GA	0.1492	0.0000	0.0100
GASEPF	DEP	STANDARD	1	21	A	2	GA	0.1492	0.0000	0.0100
GASEPF	DEP	STANDARD	1	21	A	3	GA	0.0404	0.0000	0.0027
GASEPF	DEP	STANDARD	1	21	A	4	GA	0.0404	0.0000	0.0027
GASEPF	DEP	STANDARD	1	21	B	0	GA	1.3983	0.0000	0.0941

GASEPF	DEP	STANDARD	1	21	B	1	GA	1.1186	0.0000	0.0753
GASEPF	DEP	STANDARD	1	21	B	2	GA	1.1186	0.0000	0.0753
GASEPF	DEP	STANDARD	1	21	B	3	GA	0.5034	0.0000	0.0339
GASEPF	DEP	STANDARD	1	21	B	4	GA	0.8390	0.0000	0.0565
GASEPF	DEP	STANDARD	1	21	B	5	GA	0.1678	0.0000	0.0113
GASEPF	DEP	STANDARD	1	21	B	6	GA	0.4474	0.0000	0.0301
GASEPF	DEP	STANDARD	1	21	C	0	GA	1.2118	0.0000	0.0816
GASEPF	DEP	STANDARD	1	21	C	1	GA	0.7458	0.0000	0.0502
GASEPF	DEP	STANDARD	1	21	C	2	GA	0.7458	0.0000	0.0502
GASEPF	DEP	STANDARD	1	21	C	3	GA	0.2020	0.0000	0.0136
GASEPF	DEP	STANDARD	1	21	C	4	GA	0.2020	0.0000	0.0136
GASEPF	DEP	STANDARD	1	21	D	0	GA	0.4847	0.0000	0.0326
GASEPF	DEP	STANDARD	1	21	D	1	GA	0.2983	0.0000	0.0201
GASEPF	DEP	STANDARD	1	21	D	2	GA	0.2983	0.0000	0.0201
GASEPF	DEP	STANDARD	1	21	D	3	GA	0.0808	0.0000	0.0054
GASEPF	DEP	STANDARD	1	21	D	4	GA	0.0808	0.0000	0.0054
GASEPF	DEP	STANDARD	1	21	E	0	GA	0.4847	0.0000	0.0326
GASEPF	DEP	STANDARD	1	21	E	1	GA	0.2983	0.0000	0.0201
GASEPF	DEP	STANDARD	1	21	E	2	GA	0.2983	0.0000	0.0201
GASEPF	DEP	STANDARD	1	21	E	3	GA	0.0808	0.0000	0.0054
GASEPF	DEP	STANDARD	1	21	E	4	GA	0.0808	0.0000	0.0054
GASEPF	DEP	STANDARD	1	21	F	0	GA	0.2424	0.0000	0.0163
GASEPF	DEP	STANDARD	1	21	F	1	GA	0.1492	0.0000	0.0100
GASEPF	DEP	STANDARD	1	21	F	2	GA	0.1492	0.0000	0.0100
GASEPF	DEP	STANDARD	1	21	F	3	GA	0.0404	0.0000	0.0027
GASEPF	DEP	STANDARD	1	21	F	4	GA	0.0404	0.0000	0.0027
GASEPF	TGO	STANDARD	1	03	A	0	GA	0.7107	0.0000	0.0454
GASEPF	TGO	STANDARD	1	03	A	1	GA	0.5332	0.0000	0.0340
GASEPF	TGO	STANDARD	1	03	A	2	GA	0.5332	0.0000	0.0340
GASEPF	TGO	STANDARD	1	03	A	3	GA	0.2134	0.0000	0.0136
GASEPF	TGO	STANDARD	1	03	A	4	GA	0.2134	0.0000	0.0136
GASEPF	TGO	STANDARD	1	03	A	5	GA	0.0355	0.0000	0.0023
GASEPF	TGO	STANDARD	1	03	A	6	GA	0.0355	0.0000	0.0023
GASEPF	TGO	STANDARD	1	21	A	0	GA	2.8427	0.0000	0.1814
GASEPF	TGO	STANDARD	1	21	A	1	GA	2.1330	0.0000	0.1361
GASEPF	TGO	STANDARD	1	21	A	2	GA	2.1330	0.0000	0.1361
GASEPF	TGO	STANDARD	1	21	A	3	GA	0.8536	0.0000	0.0545
GASEPF	TGO	STANDARD	1	21	A	4	GA	0.8536	0.0000	0.0545
GASEPF	TGO	STANDARD	1	21	A	5	GA	0.1420	0.0000	0.0091
GASEPF	TGO	STANDARD	1	21	A	6	GA	0.1420	0.0000	0.0091
GASEPV	APP	STANDARD	2	03	A	0	GA	0.3847	0.0000	0.0246
GASEPV	APP	STANDARD	2	03	A	1	GA	0.2367	0.0000	0.0151
GASEPV	APP	STANDARD	2	03	A	2	GA	0.2367	0.0000	0.0151
GASEPV	APP	STANDARD	2	03	A	3	GA	0.0641	0.0000	0.0041
GASEPV	APP	STANDARD	2	03	A	4	GA	0.0641	0.0000	0.0041
GASEPV	APP	STANDARD	2	03	B	0	GA	1.1541	0.0000	0.0737
GASEPV	APP	STANDARD	2	03	B	1	GA	0.7102	0.0000	0.0453
GASEPV	APP	STANDARD	2	03	B	2	GA	0.7102	0.0000	0.0453
GASEPV	APP	STANDARD	2	03	B	3	GA	0.1924	0.0000	0.0123
GASEPV	APP	STANDARD	2	03	B	4	GA	0.1924	0.0000	0.0123
GASEPV	APP	STANDARD	2	03	C	0	GA	0.3847	0.0000	0.0246
GASEPV	APP	STANDARD	2	03	C	1	GA	0.2367	0.0000	0.0151
GASEPV	APP	STANDARD	2	03	C	2	GA	0.2367	0.0000	0.0151
GASEPV	APP	STANDARD	2	03	C	3	GA	0.0641	0.0000	0.0041
GASEPV	APP	STANDARD	2	03	C	4	GA	0.0641	0.0000	0.0041
GASEPV	APP	STANDARD	2	21	A	0	GA	0.5393	0.0000	0.0344
GASEPV	APP	STANDARD	2	21	A	1	GA	0.4046	0.0000	0.0258

GASEPV	APP	STANDARD	2	21	A	2	GA	0.4046	0.0000	0.0258
GASEPV	APP	STANDARD	2	21	A	3	GA	0.1619	0.0000	0.0103
GASEPV	APP	STANDARD	2	21	A	4	GA	0.1619	0.0000	0.0103
GASEPV	APP	STANDARD	2	21	A	5	GA	0.0269	0.0000	0.0017
GASEPV	APP	STANDARD	2	21	A	6	GA	0.0269	0.0000	0.0017
GASEPV	APP	STANDARD	2	21	B	0	GA	2.6929	0.0000	0.1719
GASEPV	APP	STANDARD	2	21	B	1	GA	1.6572	0.0000	0.1058
GASEPV	APP	STANDARD	2	21	B	2	GA	1.6572	0.0000	0.1058
GASEPV	APP	STANDARD	2	21	B	3	GA	0.4488	0.0000	0.0286
GASEPV	APP	STANDARD	2	21	B	4	GA	0.4488	0.0000	0.0286
GASEPV	APP	STANDARD	2	21	C	0	GA	0.4488	0.0000	0.0287
GASEPV	APP	STANDARD	2	21	C	1	GA	0.2762	0.0000	0.0176
GASEPV	APP	STANDARD	2	21	C	2	GA	0.2762	0.0000	0.0176
GASEPV	APP	STANDARD	2	21	C	3	GA	0.0748	0.0000	0.0048
GASEPV	APP	STANDARD	2	21	C	4	GA	0.0748	0.0000	0.0048
GASEPV	APP	STANDARD	2	21	D	0	GA	0.4488	0.0000	0.0287
GASEPV	APP	STANDARD	2	21	D	1	GA	0.2762	0.0000	0.0176
GASEPV	APP	STANDARD	2	21	D	2	GA	0.2762	0.0000	0.0176
GASEPV	APP	STANDARD	2	21	D	3	GA	0.0748	0.0000	0.0048
GASEPV	APP	STANDARD	2	21	D	4	GA	0.0748	0.0000	0.0048
GASEPV	APP	STANDARD	2	21	E	0	GA	0.2244	0.0000	0.0143
GASEPV	APP	STANDARD	2	21	E	1	GA	0.1381	0.0000	0.0088
GASEPV	APP	STANDARD	2	21	E	2	GA	0.1381	0.0000	0.0088
GASEPV	APP	STANDARD	2	21	E	3	GA	0.0374	0.0000	0.0024
GASEPV	APP	STANDARD	2	21	E	4	GA	0.0374	0.0000	0.0024
GASEPV	DEP	STANDARD	1	03	A	0	GA	0.3082	0.0000	0.0197
GASEPV	DEP	STANDARD	1	03	A	1	GA	0.2312	0.0000	0.0148
GASEPV	DEP	STANDARD	1	03	A	2	GA	0.2312	0.0000	0.0148
GASEPV	DEP	STANDARD	1	03	A	3	GA	0.0925	0.0000	0.0059
GASEPV	DEP	STANDARD	1	03	A	4	GA	0.0925	0.0000	0.0059
GASEPV	DEP	STANDARD	1	03	A	5	GA	0.0154	0.0000	0.0010
GASEPV	DEP	STANDARD	1	03	A	6	GA	0.0154	0.0000	0.0010
GASEPV	DEP	STANDARD	1	03	B	0	GA	0.9245	0.0000	0.0590
GASEPV	DEP	STANDARD	1	03	B	1	GA	0.6937	0.0000	0.0443
GASEPV	DEP	STANDARD	1	03	B	2	GA	0.6937	0.0000	0.0443
GASEPV	DEP	STANDARD	1	03	B	3	GA	0.2776	0.0000	0.0177
GASEPV	DEP	STANDARD	1	03	B	4	GA	0.2776	0.0000	0.0177
GASEPV	DEP	STANDARD	1	03	B	5	GA	0.0462	0.0000	0.0029
GASEPV	DEP	STANDARD	1	03	B	6	GA	0.0462	0.0000	0.0029
GASEPV	DEP	STANDARD	1	03	C	0	GA	0.3847	0.0000	0.0246
GASEPV	DEP	STANDARD	1	03	C	1	GA	0.2367	0.0000	0.0151
GASEPV	DEP	STANDARD	1	03	C	2	GA	0.2367	0.0000	0.0151
GASEPV	DEP	STANDARD	1	03	C	3	GA	0.0641	0.0000	0.0041
GASEPV	DEP	STANDARD	1	03	C	4	GA	0.0641	0.0000	0.0041
GASEPV	DEP	STANDARD	1	21	A	0	GA	0.2244	0.0000	0.0143
GASEPV	DEP	STANDARD	1	21	A	1	GA	0.1381	0.0000	0.0088
GASEPV	DEP	STANDARD	1	21	A	2	GA	0.1381	0.0000	0.0088
GASEPV	DEP	STANDARD	1	21	A	3	GA	0.0374	0.0000	0.0024
GASEPV	DEP	STANDARD	1	21	A	4	GA	0.0374	0.0000	0.0024
GASEPV	DEP	STANDARD	1	21	B	0	GA	1.2947	0.0000	0.0826
GASEPV	DEP	STANDARD	1	21	B	1	GA	1.0357	0.0000	0.0661
GASEPV	DEP	STANDARD	1	21	B	2	GA	1.0357	0.0000	0.0661
GASEPV	DEP	STANDARD	1	21	B	3	GA	0.4661	0.0000	0.0298
GASEPV	DEP	STANDARD	1	21	B	4	GA	0.7768	0.0000	0.0496
GASEPV	DEP	STANDARD	1	21	B	5	GA	0.1554	0.0000	0.0099
GASEPV	DEP	STANDARD	1	21	B	6	GA	0.4143	0.0000	0.0264
GASEPV	DEP	STANDARD	1	21	C	0	GA	1.1221	0.0000	0.0716

GASEPV	DEP	STANDARD	1	21	C	1	GA	0.6905	0.0000	0.0441
GASEPV	DEP	STANDARD	1	21	C	2	GA	0.6905	0.0000	0.0441
GASEPV	DEP	STANDARD	1	21	C	3	GA	0.1870	0.0000	0.0119
GASEPV	DEP	STANDARD	1	21	C	4	GA	0.1870	0.0000	0.0119
GASEPV	DEP	STANDARD	1	21	D	0	GA	0.4488	0.0000	0.0287
GASEPV	DEP	STANDARD	1	21	D	1	GA	0.2762	0.0000	0.0176
GASEPV	DEP	STANDARD	1	21	D	2	GA	0.2762	0.0000	0.0176
GASEPV	DEP	STANDARD	1	21	D	3	GA	0.0748	0.0000	0.0048
GASEPV	DEP	STANDARD	1	21	D	4	GA	0.0748	0.0000	0.0048
GASEPV	DEP	STANDARD	1	21	E	0	GA	0.4488	0.0000	0.0287
GASEPV	DEP	STANDARD	1	21	E	1	GA	0.2762	0.0000	0.0176
GASEPV	DEP	STANDARD	1	21	E	2	GA	0.2762	0.0000	0.0176
GASEPV	DEP	STANDARD	1	21	E	3	GA	0.0748	0.0000	0.0048
GASEPV	DEP	STANDARD	1	21	E	4	GA	0.0748	0.0000	0.0048
GASEPV	DEP	STANDARD	1	21	F	0	GA	0.2244	0.0000	0.0143
GASEPV	DEP	STANDARD	1	21	F	1	GA	0.1381	0.0000	0.0088
GASEPV	DEP	STANDARD	1	21	F	2	GA	0.1381	0.0000	0.0088
GASEPV	DEP	STANDARD	1	21	F	3	GA	0.0374	0.0000	0.0024
GASEPV	DEP	STANDARD	1	21	F	4	GA	0.0374	0.0000	0.0024
GASEPV	TGO	STANDARD	1	03	A	0	GA	0.7107	0.0000	0.0454
GASEPV	TGO	STANDARD	1	03	A	1	GA	0.5332	0.0000	0.0340
GASEPV	TGO	STANDARD	1	03	A	2	GA	0.5332	0.0000	0.0340
GASEPV	TGO	STANDARD	1	03	A	3	GA	0.2134	0.0000	0.0136
GASEPV	TGO	STANDARD	1	03	A	4	GA	0.2134	0.0000	0.0136
GASEPV	TGO	STANDARD	1	03	A	5	GA	0.0355	0.0000	0.0023
GASEPV	TGO	STANDARD	1	03	A	6	GA	0.0355	0.0000	0.0023
GASEPV	TGO	STANDARD	1	21	A	0	GA	2.8427	0.0000	0.1814
GASEPV	TGO	STANDARD	1	21	A	1	GA	2.1330	0.0000	0.1361
GASEPV	TGO	STANDARD	1	21	A	2	GA	2.1330	0.0000	0.1361
GASEPV	TGO	STANDARD	1	21	A	3	GA	0.8536	0.0000	0.0545
GASEPV	TGO	STANDARD	1	21	A	4	GA	0.8536	0.0000	0.0545
GASEPV	TGO	STANDARD	1	21	A	5	GA	0.1420	0.0000	0.0091
GASEPV	TGO	STANDARD	1	21	A	6	GA	0.1420	0.0000	0.0091
GV	APP	STANDARD	1	03	A	0	GA	0.0051	0.0000	0.0002
GV	APP	STANDARD	1	03	A	1	GA	0.0032	0.0000	0.0001
GV	APP	STANDARD	1	03	A	2	GA	0.0032	0.0000	0.0001
GV	APP	STANDARD	1	03	A	3	GA	0.0009	0.0000	0.0000
GV	APP	STANDARD	1	03	A	4	GA	0.0009	0.0000	0.0000
GV	APP	STANDARD	1	03	B	0	GA	0.0154	0.0000	0.0006
GV	APP	STANDARD	1	03	B	1	GA	0.0095	0.0000	0.0004
GV	APP	STANDARD	1	03	B	2	GA	0.0095	0.0000	0.0004
GV	APP	STANDARD	1	03	B	3	GA	0.0026	0.0000	0.0001
GV	APP	STANDARD	1	03	B	4	GA	0.0026	0.0000	0.0001
GV	APP	STANDARD	1	03	C	0	GA	0.0051	0.0000	0.0002
GV	APP	STANDARD	1	03	C	1	GA	0.0032	0.0000	0.0001
GV	APP	STANDARD	1	03	C	2	GA	0.0032	0.0000	0.0001
GV	APP	STANDARD	1	03	C	3	GA	0.0009	0.0000	0.0000
GV	APP	STANDARD	1	03	C	4	GA	0.0009	0.0000	0.0000
GV	APP	STANDARD	1	21	A	0	GA	0.0240	0.0000	0.0010
GV	APP	STANDARD	1	21	A	1	GA	0.0180	0.0000	0.0008
GV	APP	STANDARD	1	21	A	2	GA	0.0180	0.0000	0.0008
GV	APP	STANDARD	1	21	A	3	GA	0.0072	0.0000	0.0003
GV	APP	STANDARD	1	21	A	4	GA	0.0072	0.0000	0.0003
GV	APP	STANDARD	1	21	A	5	GA	0.0012	0.0000	0.0000
GV	APP	STANDARD	1	21	A	6	GA	0.0012	0.0000	0.0000
GV	APP	STANDARD	1	21	B	0	GA	0.0210	0.0000	0.0009
GV	APP	STANDARD	1	21	B	1	GA	0.0129	0.0000	0.0005

GV	APP	STANDARD	1	21	B	2	GA	0.0129	0.0000	0.0005
GV	APP	STANDARD	1	21	B	3	GA	0.0035	0.0000	0.0001
GV	APP	STANDARD	1	21	B	4	GA	0.0035	0.0000	0.0001
GV	APP	STANDARD	1	21	C	0	GA	0.0030	0.0000	0.0001
GV	APP	STANDARD	1	21	C	1	GA	0.0018	0.0000	0.0001
GV	APP	STANDARD	1	21	C	2	GA	0.0018	0.0000	0.0001
GV	APP	STANDARD	1	21	C	3	GA	0.0005	0.0000	0.0000
GV	APP	STANDARD	1	21	C	4	GA	0.0005	0.0000	0.0000
GV	APP	STANDARD	1	21	D	0	GA	0.0030	0.0000	0.0001
GV	APP	STANDARD	1	21	D	1	GA	0.0018	0.0000	0.0001
GV	APP	STANDARD	1	21	D	2	GA	0.0018	0.0000	0.0001
GV	APP	STANDARD	1	21	D	3	GA	0.0005	0.0000	0.0000
GV	APP	STANDARD	1	21	D	4	GA	0.0005	0.0000	0.0000
GV	APP	STANDARD	1	21	E	0	GA	0.0030	0.0000	0.0001
GV	APP	STANDARD	1	21	E	1	GA	0.0018	0.0000	0.0001
GV	APP	STANDARD	1	21	E	2	GA	0.0018	0.0000	0.0001
GV	APP	STANDARD	1	21	E	3	GA	0.0005	0.0000	0.0000
GV	APP	STANDARD	1	21	E	4	GA	0.0005	0.0000	0.0000
GV	DEP	STANDARD	1	03	A	0	GA	0.0062	0.0000	0.0002
GV	DEP	STANDARD	1	03	A	1	GA	0.0046	0.0000	0.0002
GV	DEP	STANDARD	1	03	A	2	GA	0.0046	0.0000	0.0002
GV	DEP	STANDARD	1	03	A	3	GA	0.0019	0.0000	0.0001
GV	DEP	STANDARD	1	03	A	4	GA	0.0019	0.0000	0.0001
GV	DEP	STANDARD	1	03	A	5	GA	0.0003	0.0000	0.0000
GV	DEP	STANDARD	1	03	A	6	GA	0.0003	0.0000	0.0000
GV	DEP	STANDARD	1	03	B	0	GA	0.0123	0.0000	0.0005
GV	DEP	STANDARD	1	03	B	1	GA	0.0093	0.0000	0.0004
GV	DEP	STANDARD	1	03	B	2	GA	0.0093	0.0000	0.0004
GV	DEP	STANDARD	1	03	B	3	GA	0.0037	0.0000	0.0002
GV	DEP	STANDARD	1	03	B	4	GA	0.0037	0.0000	0.0002
GV	DEP	STANDARD	1	03	B	5	GA	0.0006	0.0000	0.0000
GV	DEP	STANDARD	1	03	B	6	GA	0.0006	0.0000	0.0000
GV	DEP	STANDARD	1	03	C	0	GA	0.0026	0.0000	0.0001
GV	DEP	STANDARD	1	03	C	1	GA	0.0016	0.0000	0.0001
GV	DEP	STANDARD	1	03	C	2	GA	0.0016	0.0000	0.0001
GV	DEP	STANDARD	1	03	C	3	GA	0.0004	0.0000	0.0000
GV	DEP	STANDARD	1	03	C	4	GA	0.0004	0.0000	0.0000
GV	DEP	STANDARD	1	21	A	0	GA	0.0030	0.0000	0.0001
GV	DEP	STANDARD	1	21	A	1	GA	0.0018	0.0000	0.0001
GV	DEP	STANDARD	1	21	A	2	GA	0.0018	0.0000	0.0001
GV	DEP	STANDARD	1	21	A	3	GA	0.0005	0.0000	0.0000
GV	DEP	STANDARD	1	21	A	4	GA	0.0005	0.0000	0.0000
GV	DEP	STANDARD	1	21	B	0	GA	0.0058	0.0000	0.0003
GV	DEP	STANDARD	1	21	B	1	GA	0.0046	0.0000	0.0002
GV	DEP	STANDARD	1	21	B	2	GA	0.0046	0.0000	0.0002
GV	DEP	STANDARD	1	21	B	3	GA	0.0021	0.0000	0.0001
GV	DEP	STANDARD	1	21	B	4	GA	0.0035	0.0000	0.0002
GV	DEP	STANDARD	1	21	B	5	GA	0.0007	0.0000	0.0000
GV	DEP	STANDARD	1	21	B	6	GA	0.0018	0.0000	0.0001
GV	DEP	STANDARD	1	21	C	0	GA	0.0024	0.0000	0.0001
GV	DEP	STANDARD	1	21	C	1	GA	0.0015	0.0000	0.0001
GV	DEP	STANDARD	1	21	C	2	GA	0.0015	0.0000	0.0001
GV	DEP	STANDARD	1	21	C	3	GA	0.0004	0.0000	0.0000
GV	DEP	STANDARD	1	21	C	4	GA	0.0004	0.0000	0.0000
GV	DEP	STANDARD	1	21	D	0	GA	0.0018	0.0000	0.0001
GV	DEP	STANDARD	1	21	D	1	GA	0.0011	0.0000	0.0000
GV	DEP	STANDARD	1	21	D	2	GA	0.0011	0.0000	0.0000

GV	DEP	STANDARD	1	21	D	3	GA	0.0003	0.0000	0.0000
GV	DEP	STANDARD	1	21	D	4	GA	0.0003	0.0000	0.0000
GV	DEP	STANDARD	1	21	E	0	GA	0.0018	0.0000	0.0001
GV	DEP	STANDARD	1	21	E	1	GA	0.0011	0.0000	0.0000
GV	DEP	STANDARD	1	21	E	2	GA	0.0011	0.0000	0.0000
GV	DEP	STANDARD	1	21	E	3	GA	0.0003	0.0000	0.0000
GV	DEP	STANDARD	1	21	E	4	GA	0.0003	0.0000	0.0000
GV	DEP	STANDARD	1	21	F	0	GA	0.0420	0.0000	0.0018
GV	DEP	STANDARD	1	21	F	1	GA	0.0258	0.0000	0.0011
GV	DEP	STANDARD	1	21	F	2	GA	0.0258	0.0000	0.0011
GV	DEP	STANDARD	1	21	F	3	GA	0.0070	0.0000	0.0003
GV	DEP	STANDARD	1	21	F	4	GA	0.0070	0.0000	0.0003
HS748A	APP	STANDARD	1	03	A	0	COM	0.0035	0.0000	0.0006
HS748A	APP	STANDARD	1	03	A	1	COM	0.0022	0.0000	0.0004
HS748A	APP	STANDARD	1	03	A	2	COM	0.0022	0.0000	0.0004
HS748A	APP	STANDARD	1	03	A	3	COM	0.0006	0.0000	0.0001
HS748A	APP	STANDARD	1	03	A	4	COM	0.0006	0.0000	0.0001
HS748A	APP	STANDARD	1	03	B	0	COM	0.0106	0.0000	0.0019
HS748A	APP	STANDARD	1	03	B	1	COM	0.0065	0.0000	0.0012
HS748A	APP	STANDARD	1	03	B	2	COM	0.0065	0.0000	0.0012
HS748A	APP	STANDARD	1	03	B	3	COM	0.0018	0.0000	0.0003
HS748A	APP	STANDARD	1	03	B	4	COM	0.0018	0.0000	0.0003
HS748A	APP	STANDARD	1	03	C	0	COM	0.0035	0.0000	0.0006
HS748A	APP	STANDARD	1	03	C	1	COM	0.0022	0.0000	0.0004
HS748A	APP	STANDARD	1	03	C	2	COM	0.0022	0.0000	0.0004
HS748A	APP	STANDARD	1	03	C	3	COM	0.0006	0.0000	0.0001
HS748A	APP	STANDARD	1	03	C	4	COM	0.0006	0.0000	0.0001
HS748A	APP	STANDARD	1	21	A	0	COM	0.0166	0.0000	0.0029
HS748A	APP	STANDARD	1	21	A	1	COM	0.0124	0.0000	0.0022
HS748A	APP	STANDARD	1	21	A	2	COM	0.0124	0.0000	0.0022
HS748A	APP	STANDARD	1	21	A	3	COM	0.0050	0.0000	0.0009
HS748A	APP	STANDARD	1	21	A	4	COM	0.0050	0.0000	0.0009
HS748A	APP	STANDARD	1	21	A	5	COM	0.0008	0.0000	0.0001
HS748A	APP	STANDARD	1	21	A	6	COM	0.0008	0.0000	0.0001
HS748A	APP	STANDARD	1	21	B	0	COM	0.0145	0.0000	0.0025
HS748A	APP	STANDARD	1	21	B	1	COM	0.0089	0.0000	0.0016
HS748A	APP	STANDARD	1	21	B	2	COM	0.0089	0.0000	0.0016
HS748A	APP	STANDARD	1	21	B	3	COM	0.0024	0.0000	0.0004
HS748A	APP	STANDARD	1	21	B	4	COM	0.0024	0.0000	0.0004
HS748A	APP	STANDARD	1	21	C	0	COM	0.0021	0.0000	0.0004
HS748A	APP	STANDARD	1	21	C	1	COM	0.0013	0.0000	0.0002
HS748A	APP	STANDARD	1	21	C	2	COM	0.0013	0.0000	0.0002
HS748A	APP	STANDARD	1	21	C	3	COM	0.0003	0.0000	0.0001
HS748A	APP	STANDARD	1	21	C	4	COM	0.0003	0.0000	0.0001
HS748A	APP	STANDARD	1	21	D	0	COM	0.0021	0.0000	0.0004
HS748A	APP	STANDARD	1	21	D	1	COM	0.0013	0.0000	0.0002
HS748A	APP	STANDARD	1	21	D	2	COM	0.0013	0.0000	0.0002
HS748A	APP	STANDARD	1	21	D	3	COM	0.0003	0.0000	0.0001
HS748A	APP	STANDARD	1	21	D	4	COM	0.0003	0.0000	0.0001
HS748A	APP	STANDARD	1	21	E	0	COM	0.0021	0.0000	0.0004
HS748A	APP	STANDARD	1	21	E	1	COM	0.0013	0.0000	0.0002
HS748A	APP	STANDARD	1	21	E	2	COM	0.0013	0.0000	0.0002
HS748A	APP	STANDARD	1	21	E	3	COM	0.0003	0.0000	0.0001
HS748A	APP	STANDARD	1	21	E	4	COM	0.0003	0.0000	0.0001
HS748A	DEP	STANDARD	1	03	A	0	COM	0.0042	0.0000	0.0007
HS748A	DEP	STANDARD	1	03	A	1	COM	0.0032	0.0000	0.0006
HS748A	DEP	STANDARD	1	03	A	2	COM	0.0032	0.0000	0.0006

HS748A	DEP	STANDARD	1	03	A	3	COM	0.0013	0.0000	0.0002
HS748A	DEP	STANDARD	1	03	A	4	COM	0.0013	0.0000	0.0002
HS748A	DEP	STANDARD	1	03	A	5	COM	0.0002	0.0000	0.0000
HS748A	DEP	STANDARD	1	03	A	6	COM	0.0002	0.0000	0.0000
HS748A	DEP	STANDARD	1	03	B	0	COM	0.0085	0.0000	0.0015
HS748A	DEP	STANDARD	1	03	B	1	COM	0.0064	0.0000	0.0011
HS748A	DEP	STANDARD	1	03	B	2	COM	0.0064	0.0000	0.0011
HS748A	DEP	STANDARD	1	03	B	3	COM	0.0026	0.0000	0.0005
HS748A	DEP	STANDARD	1	03	B	4	COM	0.0026	0.0000	0.0005
HS748A	DEP	STANDARD	1	03	B	5	COM	0.0004	0.0000	0.0001
HS748A	DEP	STANDARD	1	03	B	6	COM	0.0004	0.0000	0.0001
HS748A	DEP	STANDARD	1	03	C	0	COM	0.0018	0.0000	0.0003
HS748A	DEP	STANDARD	1	03	C	1	COM	0.0011	0.0000	0.0002
HS748A	DEP	STANDARD	1	03	C	2	COM	0.0011	0.0000	0.0002
HS748A	DEP	STANDARD	1	03	C	3	COM	0.0003	0.0000	0.0001
HS748A	DEP	STANDARD	1	03	C	4	COM	0.0003	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	A	0	COM	0.0021	0.0000	0.0004
HS748A	DEP	STANDARD	1	21	A	1	COM	0.0013	0.0000	0.0002
HS748A	DEP	STANDARD	1	21	A	2	COM	0.0013	0.0000	0.0002
HS748A	DEP	STANDARD	1	21	A	3	COM	0.0003	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	A	4	COM	0.0003	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	B	0	COM	0.0040	0.0000	0.0007
HS748A	DEP	STANDARD	1	21	B	1	COM	0.0032	0.0000	0.0006
HS748A	DEP	STANDARD	1	21	B	2	COM	0.0032	0.0000	0.0006
HS748A	DEP	STANDARD	1	21	B	3	COM	0.0014	0.0000	0.0003
HS748A	DEP	STANDARD	1	21	B	4	COM	0.0024	0.0000	0.0004
HS748A	DEP	STANDARD	1	21	B	5	COM	0.0005	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	B	6	COM	0.0013	0.0000	0.0002
HS748A	DEP	STANDARD	1	21	C	0	COM	0.0016	0.0000	0.0003
HS748A	DEP	STANDARD	1	21	C	1	COM	0.0010	0.0000	0.0002
HS748A	DEP	STANDARD	1	21	C	2	COM	0.0010	0.0000	0.0002
HS748A	DEP	STANDARD	1	21	C	3	COM	0.0003	0.0000	0.0000
HS748A	DEP	STANDARD	1	21	C	4	COM	0.0003	0.0000	0.0000
HS748A	DEP	STANDARD	1	21	D	0	COM	0.0012	0.0000	0.0002
HS748A	DEP	STANDARD	1	21	D	1	COM	0.0008	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	D	2	COM	0.0008	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	D	3	COM	0.0002	0.0000	0.0000
HS748A	DEP	STANDARD	1	21	D	4	COM	0.0002	0.0000	0.0000
HS748A	DEP	STANDARD	1	21	E	0	COM	0.0012	0.0000	0.0002
HS748A	DEP	STANDARD	1	21	E	1	COM	0.0008	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	E	2	COM	0.0008	0.0000	0.0001
HS748A	DEP	STANDARD	1	21	E	3	COM	0.0002	0.0000	0.0000
HS748A	DEP	STANDARD	1	21	E	4	COM	0.0002	0.0000	0.0000
HS748A	DEP	STANDARD	1	21	F	0	COM	0.0289	0.0000	0.0051
HS748A	DEP	STANDARD	1	21	F	1	COM	0.0178	0.0000	0.0031
HS748A	DEP	STANDARD	1	21	F	2	COM	0.0178	0.0000	0.0031
HS748A	DEP	STANDARD	1	21	F	3	COM	0.0048	0.0000	0.0009
HS748A	DEP	STANDARD	1	21	F	4	COM	0.0048	0.0000	0.0009
LEAR25	APP	STANDARD	1	03	A	0	GA	0.0308	0.0000	0.0013
LEAR25	APP	STANDARD	1	03	A	1	GA	0.0189	0.0000	0.0008
LEAR25	APP	STANDARD	1	03	A	2	GA	0.0189	0.0000	0.0008
LEAR25	APP	STANDARD	1	03	A	3	GA	0.0051	0.0000	0.0002
LEAR25	APP	STANDARD	1	03	A	4	GA	0.0051	0.0000	0.0002
LEAR25	APP	STANDARD	1	03	B	0	GA	0.0923	0.0000	0.0039
LEAR25	APP	STANDARD	1	03	B	1	GA	0.0568	0.0000	0.0024
LEAR25	APP	STANDARD	1	03	B	2	GA	0.0568	0.0000	0.0024
LEAR25	APP	STANDARD	1	03	B	3	GA	0.0154	0.0000	0.0006

LEAR25	APP	STANDARD	1	03	B	4	GA	0.0154	0.0000	0.0006
LEAR25	APP	STANDARD	1	03	C	0	GA	0.0308	0.0000	0.0013
LEAR25	APP	STANDARD	1	03	C	1	GA	0.0189	0.0000	0.0008
LEAR25	APP	STANDARD	1	03	C	2	GA	0.0189	0.0000	0.0008
LEAR25	APP	STANDARD	1	03	C	3	GA	0.0051	0.0000	0.0002
LEAR25	APP	STANDARD	1	03	C	4	GA	0.0051	0.0000	0.0002
LEAR25	APP	STANDARD	1	21	A	0	GA	0.1438	0.0000	0.0060
LEAR25	APP	STANDARD	1	21	A	1	GA	0.1079	0.0000	0.0045
LEAR25	APP	STANDARD	1	21	A	2	GA	0.1079	0.0000	0.0045
LEAR25	APP	STANDARD	1	21	A	3	GA	0.0432	0.0000	0.0018
LEAR25	APP	STANDARD	1	21	A	4	GA	0.0432	0.0000	0.0018
LEAR25	APP	STANDARD	1	21	A	5	GA	0.0072	0.0000	0.0003
LEAR25	APP	STANDARD	1	21	A	6	GA	0.0072	0.0000	0.0003
LEAR25	APP	STANDARD	1	21	B	0	GA	0.1257	0.0000	0.0052
LEAR25	APP	STANDARD	1	21	B	1	GA	0.0773	0.0000	0.0032
LEAR25	APP	STANDARD	1	21	B	2	GA	0.0773	0.0000	0.0032
LEAR25	APP	STANDARD	1	21	B	3	GA	0.0209	0.0000	0.0009
LEAR25	APP	STANDARD	1	21	B	4	GA	0.0209	0.0000	0.0009
LEAR25	APP	STANDARD	1	21	C	0	GA	0.0179	0.0000	0.0007
LEAR25	APP	STANDARD	1	21	C	1	GA	0.0110	0.0000	0.0005
LEAR25	APP	STANDARD	1	21	C	2	GA	0.0110	0.0000	0.0005
LEAR25	APP	STANDARD	1	21	C	3	GA	0.0030	0.0000	0.0001
LEAR25	APP	STANDARD	1	21	C	4	GA	0.0030	0.0000	0.0001
LEAR25	APP	STANDARD	1	21	D	0	GA	0.0179	0.0000	0.0007
LEAR25	APP	STANDARD	1	21	D	1	GA	0.0110	0.0000	0.0005
LEAR25	APP	STANDARD	1	21	D	2	GA	0.0110	0.0000	0.0005
LEAR25	APP	STANDARD	1	21	D	3	GA	0.0030	0.0000	0.0001
LEAR25	APP	STANDARD	1	21	D	4	GA	0.0030	0.0000	0.0001
LEAR25	APP	STANDARD	1	21	E	0	GA	0.0179	0.0000	0.0007
LEAR25	APP	STANDARD	1	21	E	1	GA	0.0110	0.0000	0.0005
LEAR25	APP	STANDARD	1	21	E	2	GA	0.0110	0.0000	0.0005
LEAR25	APP	STANDARD	1	21	E	3	GA	0.0030	0.0000	0.0001
LEAR25	APP	STANDARD	1	21	E	4	GA	0.0030	0.0000	0.0001
LEAR25	DEP	STANDARD	1	03	A	0	GA	0.0370	0.0000	0.0015
LEAR25	DEP	STANDARD	1	03	A	1	GA	0.0278	0.0000	0.0011
LEAR25	DEP	STANDARD	1	03	A	2	GA	0.0278	0.0000	0.0011
LEAR25	DEP	STANDARD	1	03	A	3	GA	0.0111	0.0000	0.0005
LEAR25	DEP	STANDARD	1	03	A	4	GA	0.0111	0.0000	0.0005
LEAR25	DEP	STANDARD	1	03	A	5	GA	0.0018	0.0000	0.0001
LEAR25	DEP	STANDARD	1	03	A	6	GA	0.0018	0.0000	0.0001
LEAR25	DEP	STANDARD	1	03	B	0	GA	0.0739	0.0000	0.0031
LEAR25	DEP	STANDARD	1	03	B	1	GA	0.0555	0.0000	0.0023
LEAR25	DEP	STANDARD	1	03	B	2	GA	0.0555	0.0000	0.0023
LEAR25	DEP	STANDARD	1	03	B	3	GA	0.0222	0.0000	0.0009
LEAR25	DEP	STANDARD	1	03	B	4	GA	0.0222	0.0000	0.0009
LEAR25	DEP	STANDARD	1	03	B	5	GA	0.0037	0.0000	0.0002
LEAR25	DEP	STANDARD	1	03	B	6	GA	0.0037	0.0000	0.0002
LEAR25	DEP	STANDARD	1	03	C	0	GA	0.0154	0.0000	0.0006
LEAR25	DEP	STANDARD	1	03	C	1	GA	0.0095	0.0000	0.0004
LEAR25	DEP	STANDARD	1	03	C	2	GA	0.0095	0.0000	0.0004
LEAR25	DEP	STANDARD	1	03	C	3	GA	0.0026	0.0000	0.0001
LEAR25	DEP	STANDARD	1	03	C	4	GA	0.0026	0.0000	0.0001
LEAR25	DEP	STANDARD	1	21	B	0	GA	0.0345	0.0000	0.0014
LEAR25	DEP	STANDARD	1	21	B	1	GA	0.0276	0.0000	0.0012
LEAR25	DEP	STANDARD	1	21	B	2	GA	0.0276	0.0000	0.0012
LEAR25	DEP	STANDARD	1	21	B	3	GA	0.0124	0.0000	0.0005
LEAR25	DEP	STANDARD	1	21	B	4	GA	0.0207	0.0000	0.0009

LEAR25	DEP	STANDARD	1	21	B	5	GA	0.0041	0.0000	0.0002
LEAR25	DEP	STANDARD	1	21	B	6	GA	0.0110	0.0000	0.0005
LEAR25	DEP	STANDARD	1	21	F	0	GA	0.3052	0.0000	0.0127
LEAR25	DEP	STANDARD	1	21	F	1	GA	0.1878	0.0000	0.0078
LEAR25	DEP	STANDARD	1	21	F	2	GA	0.1878	0.0000	0.0078
LEAR25	DEP	STANDARD	1	21	F	3	GA	0.0509	0.0000	0.0021
LEAR25	DEP	STANDARD	1	21	F	4	GA	0.0509	0.0000	0.0021
LEAR35	APP	STANDARD	1	03	A	0	GA	0.0392	0.0000	0.0035
LEAR35	APP	STANDARD	1	03	A	1	GA	0.0241	0.0000	0.0022
LEAR35	APP	STANDARD	1	03	A	2	GA	0.0241	0.0000	0.0022
LEAR35	APP	STANDARD	1	03	A	3	GA	0.0065	0.0000	0.0006
LEAR35	APP	STANDARD	1	03	A	4	GA	0.0065	0.0000	0.0006
LEAR35	APP	STANDARD	1	03	B	0	GA	0.1177	0.0000	0.0105
LEAR35	APP	STANDARD	1	03	B	1	GA	0.0724	0.0000	0.0065
LEAR35	APP	STANDARD	1	03	B	2	GA	0.0724	0.0000	0.0065
LEAR35	APP	STANDARD	1	03	B	3	GA	0.0196	0.0000	0.0018
LEAR35	APP	STANDARD	1	03	B	4	GA	0.0196	0.0000	0.0018
LEAR35	APP	STANDARD	1	03	C	0	GA	0.0392	0.0000	0.0035
LEAR35	APP	STANDARD	1	03	C	1	GA	0.0241	0.0000	0.0022
LEAR35	APP	STANDARD	1	03	C	2	GA	0.0241	0.0000	0.0022
LEAR35	APP	STANDARD	1	03	C	3	GA	0.0065	0.0000	0.0006
LEAR35	APP	STANDARD	1	03	C	4	GA	0.0065	0.0000	0.0006
LEAR35	APP	STANDARD	1	21	A	0	GA	0.1833	0.0000	0.0164
LEAR35	APP	STANDARD	1	21	A	1	GA	0.1375	0.0000	0.0123
LEAR35	APP	STANDARD	1	21	A	2	GA	0.1375	0.0000	0.0123
LEAR35	APP	STANDARD	1	21	A	3	GA	0.0550	0.0000	0.0049
LEAR35	APP	STANDARD	1	21	A	4	GA	0.0550	0.0000	0.0049
LEAR35	APP	STANDARD	1	21	A	5	GA	0.0092	0.0000	0.0008
LEAR35	APP	STANDARD	1	21	A	6	GA	0.0092	0.0000	0.0008
LEAR35	APP	STANDARD	1	21	B	0	GA	0.1602	0.0000	0.0143
LEAR35	APP	STANDARD	1	21	B	1	GA	0.0986	0.0000	0.0088
LEAR35	APP	STANDARD	1	21	B	2	GA	0.0986	0.0000	0.0088
LEAR35	APP	STANDARD	1	21	B	3	GA	0.0267	0.0000	0.0024
LEAR35	APP	STANDARD	1	21	B	4	GA	0.0267	0.0000	0.0024
LEAR35	APP	STANDARD	1	21	C	0	GA	0.0229	0.0000	0.0020
LEAR35	APP	STANDARD	1	21	C	1	GA	0.0141	0.0000	0.0012
LEAR35	APP	STANDARD	1	21	C	2	GA	0.0141	0.0000	0.0012
LEAR35	APP	STANDARD	1	21	C	3	GA	0.0038	0.0000	0.0003
LEAR35	APP	STANDARD	1	21	C	4	GA	0.0038	0.0000	0.0003
LEAR35	APP	STANDARD	1	21	D	0	GA	0.0229	0.0000	0.0020
LEAR35	APP	STANDARD	1	21	D	1	GA	0.0141	0.0000	0.0012
LEAR35	APP	STANDARD	1	21	D	2	GA	0.0141	0.0000	0.0012
LEAR35	APP	STANDARD	1	21	D	3	GA	0.0038	0.0000	0.0003
LEAR35	APP	STANDARD	1	21	D	4	GA	0.0038	0.0000	0.0003
LEAR35	APP	STANDARD	1	21	E	0	GA	0.0229	0.0000	0.0020
LEAR35	APP	STANDARD	1	21	E	1	GA	0.0141	0.0000	0.0012
LEAR35	APP	STANDARD	1	21	E	2	GA	0.0141	0.0000	0.0012
LEAR35	APP	STANDARD	1	21	E	3	GA	0.0038	0.0000	0.0003
LEAR35	APP	STANDARD	1	21	E	4	GA	0.0038	0.0000	0.0003
LEAR35	DEP	STANDARD	1	03	A	0	GA	0.0471	0.0000	0.0042
LEAR35	DEP	STANDARD	1	03	A	1	GA	0.0354	0.0000	0.0032
LEAR35	DEP	STANDARD	1	03	A	2	GA	0.0354	0.0000	0.0032
LEAR35	DEP	STANDARD	1	03	A	3	GA	0.0142	0.0000	0.0013
LEAR35	DEP	STANDARD	1	03	A	4	GA	0.0142	0.0000	0.0013
LEAR35	DEP	STANDARD	1	03	A	5	GA	0.0024	0.0000	0.0002
LEAR35	DEP	STANDARD	1	03	A	6	GA	0.0024	0.0000	0.0002
LEAR35	DEP	STANDARD	1	03	B	0	GA	0.0943	0.0000	0.0084

LEAR35	DEP	STANDARD	1	03	B	1	GA	0.0707	0.0000	0.0063
LEAR35	DEP	STANDARD	1	03	B	2	GA	0.0707	0.0000	0.0063
LEAR35	DEP	STANDARD	1	03	B	3	GA	0.0283	0.0000	0.0025
LEAR35	DEP	STANDARD	1	03	B	4	GA	0.0283	0.0000	0.0025
LEAR35	DEP	STANDARD	1	03	B	5	GA	0.0047	0.0000	0.0004
LEAR35	DEP	STANDARD	1	03	B	6	GA	0.0047	0.0000	0.0004
LEAR35	DEP	STANDARD	1	03	C	0	GA	0.0196	0.0000	0.0018
LEAR35	DEP	STANDARD	1	03	C	1	GA	0.0121	0.0000	0.0011
LEAR35	DEP	STANDARD	1	03	C	2	GA	0.0121	0.0000	0.0011
LEAR35	DEP	STANDARD	1	03	C	3	GA	0.0033	0.0000	0.0003
LEAR35	DEP	STANDARD	1	03	C	4	GA	0.0033	0.0000	0.0003
LEAR35	DEP	STANDARD	1	21	A	0	GA	0.0229	0.0000	0.0020
LEAR35	DEP	STANDARD	1	21	A	1	GA	0.0141	0.0000	0.0012
LEAR35	DEP	STANDARD	1	21	A	2	GA	0.0141	0.0000	0.0012
LEAR35	DEP	STANDARD	1	21	A	3	GA	0.0038	0.0000	0.0003
LEAR35	DEP	STANDARD	1	21	A	4	GA	0.0038	0.0000	0.0003
LEAR35	DEP	STANDARD	1	21	B	0	GA	0.0440	0.0000	0.0039
LEAR35	DEP	STANDARD	1	21	B	1	GA	0.0352	0.0000	0.0031
LEAR35	DEP	STANDARD	1	21	B	2	GA	0.0352	0.0000	0.0031
LEAR35	DEP	STANDARD	1	21	B	3	GA	0.0158	0.0000	0.0014
LEAR35	DEP	STANDARD	1	21	B	4	GA	0.0264	0.0000	0.0024
LEAR35	DEP	STANDARD	1	21	B	5	GA	0.0053	0.0000	0.0005
LEAR35	DEP	STANDARD	1	21	B	6	GA	0.0141	0.0000	0.0013
LEAR35	DEP	STANDARD	1	21	C	0	GA	0.0183	0.0000	0.0016
LEAR35	DEP	STANDARD	1	21	C	1	GA	0.0113	0.0000	0.0010
LEAR35	DEP	STANDARD	1	21	C	2	GA	0.0113	0.0000	0.0010
LEAR35	DEP	STANDARD	1	21	C	3	GA	0.0030	0.0000	0.0003
LEAR35	DEP	STANDARD	1	21	C	4	GA	0.0030	0.0000	0.0003
LEAR35	DEP	STANDARD	1	21	D	0	GA	0.0137	0.0000	0.0012
LEAR35	DEP	STANDARD	1	21	D	1	GA	0.0084	0.0000	0.0007
LEAR35	DEP	STANDARD	1	21	D	2	GA	0.0084	0.0000	0.0007
LEAR35	DEP	STANDARD	1	21	D	3	GA	0.0023	0.0000	0.0002
LEAR35	DEP	STANDARD	1	21	D	4	GA	0.0023	0.0000	0.0002
LEAR35	DEP	STANDARD	1	21	E	0	GA	0.0137	0.0000	0.0012
LEAR35	DEP	STANDARD	1	21	E	1	GA	0.0084	0.0000	0.0007
LEAR35	DEP	STANDARD	1	21	E	2	GA	0.0084	0.0000	0.0007
LEAR35	DEP	STANDARD	1	21	E	3	GA	0.0023	0.0000	0.0002
LEAR35	DEP	STANDARD	1	21	E	4	GA	0.0023	0.0000	0.0002
LEAR35	DEP	STANDARD	1	21	F	0	GA	0.3203	0.0000	0.0286
LEAR35	DEP	STANDARD	1	21	F	1	GA	0.1971	0.0000	0.0176
LEAR35	DEP	STANDARD	1	21	F	2	GA	0.1971	0.0000	0.0176
LEAR35	DEP	STANDARD	1	21	F	3	GA	0.0534	0.0000	0.0048
LEAR35	DEP	STANDARD	1	21	F	4	GA	0.0534	0.0000	0.0048

FLAGSTAFF
PULLIAM AIRPORT

Appendix L

GRAND CANYON NATIONAL PARK NOISE ANALYSIS

Flagstaff EA Supplemental Noise Support Data Sources, Modeling Inputs, and Results

Introduction

This memo discusses the data and modeling inputs used in the Flagstaff Environmental Assessment conducted during October 2005. The input follows the format of the Statement of Work "Flagstaff EA Supplemental Noise Support", August 31, 2005.

For reference, the Alternatives used in this study are:

1. Existing Conditions. This is a cumulative run, including East End commercial air tours over Grand Canyon National Park, other operations in support of air tours over GCNP, and general aviation (GA), military, and civil air carrier activity over GCNP.

2. Long-range No Action. This run assumes only B1900 operations between Flagstaff (FLG) and Salt Lake City (SLC) over GCNP; no other GA, military, and civil air carriers operations are modeled.

3. Long-range Proposed Action. This run assumes only Regional Jet operations between FLG and SLC over GCNP; no other GA, military and civil air carriers operations are modeled.

4. Cumulative Long-range No Action. All aircraft activity over GCNP, including B1900 operations between Flagstaff and Salt Lake City, are modeled. This is a cumulative noise run, assuming 4.1% growth to the study year of 2025.

5. Cumulative Long-range Proposed Action. All aircraft activity over GCNP, including Regional Jet operations between Flagstaff and Salt Lake City, are modeled. This is a cumulative noise run, assuming 4.1% growth to the study year of 2025.

6. Cumulative Forecast Existing Condition. This run models the existing aircraft activity over GCNP without including the B1900 or Regional Jet operations between Flagstaff and Salt Lake City. This is a cumulative run, assuming 4.1% growth to the study year of 2025.

Data Sources

Air Tour Data

"Air Tour" data includes East End commercial air tours over the Grand Canyon National Park (GCNP) and other operations in support of air tours over GCNP. All data for these operations were taken from data collected by the Federal Aviation Administration's Las Vegas Flight Standards District Office (FSDO). The FSDO data consists of records of all GCNP air tour and support operations for the year 2003. For the FICAN model comparison study: "Assessment of Tools for Modeling Aircraft Noise in the National Parks" (http://www.nps.gov/grca/overflights/documents/pdf/fican.pdf), the month of August was determined to be the peak month of operations. During this peak month, the 31st was found to

represent an average day of operations. Table 1 below lists the types of aircraft, their flight tracks, and their total operations on this peak month, average day (PMAD).

Table 1, GCNP Air Tour and Support operations, August 31, 2003

Aircraft Type	Air Tour Routes (from FAA's Grand Canyon VFR Aeronautical Chart)	Daily Operations[1]
AS350	Green 4, landing at mid-pad, continuing to 1GW	36
AS350	Green 4, landing at north-pad, continuing to 1GW	3
AS350	Green 4, landing at north-pad	3
AS350	Green 1	1
AS350	Green 1A	5
AS350	Green 2	12
AS350	Green 4	5
AS350	From Mid-pad, back to Green 4	19
B206B	From Mid-pad, back to Green 4	1
B206L	Brown 6, East-bound	1
B206L	Brown 6, West-bound	1
B206L	Green 1A	30
B206L	Green 2	55
B206L	Green 4	1
BEC58P	Blue Direct, North track, West-bound, high altitude	1
BEC58P	Blue 2	2
C207	Black 1A	8
CNA206	Blue 2	1
CNA206	Black 1	3
CNA206	Black 3	1
CNA441	Blue Direct, South track, East-bound	7
DH6QP	Blue Direct, North track, East-bound, high altitude	12
DH6QP	Blue Direct, North track, East-bound, low altitude	2
DH6QP	Blue Direct, North track, West-bound, high altitude	10
DH6QP	Blue Direct, North track, West-bound, low altitude	2
DH6QP	Blue 2	3
DH6QP	Black 1A	11
DHC6	Blue Direct, North track, East-bound, high altitude	4
DHC6	Blue Direct, North track, East-bound, low altitude	1
DHC6	Blue Direct, North track, West-bound, high altitude	11
DHC6	Blue Direct, North track, West-bound, low altitude	2
DHC6	Brown 1	2
DHC6	Brown 2	1
DHC6	Brown 5	1
EC130	Green 4, landing at mid-pad, continuing to 1GW	7
EC130	Green 1A	5
EC130	Green 2	9
GASEPF	Black 1	1
GASEPF	Black 1A	1
PA31	Blue Direct, North track, West-bound, high altitude	1
PA31	Blue 2	2
	Total	284

[1]All Air Tour operations occur during a 12-hour daylight period when the Park is open.

The air tours of most interest in this study are the "East End" operations originating from the Grand Canyon Airport at Tusayan. There are two primary operations in the East End. The first, by both helicopters and fixed-wing aircraft, are operations north up the Zuni Corridor, over Point Imperial westbound, then south down the Dragon Corridor. These are listed in Table 1 as "Black 1A." The second, by helicopters only, are flights northbound on the east side of the Dragon Corridor, a U-turn upon reaching the North Rim, and then southbound back to Tusayan on the west side of the Dragon Corridor. These operations are listed in Table 1 as "Green 2." The other major air tours of influence are flights back and forth from Las Vegas to Tusayan on the "Blue Direct" routes. These Las Vegas operations will only affect the location points in the southwest part of the current study. Other operations on the East End, such as air tours up in Marble Canyon, are not frequent enough to be of significance. The "Green 4" and "Blue 2" routes in Table 1 occur on the West End of the Grand Canyon, and have no impact on this study.

Air Tour Growth

Support operations for air tours were allowed to grow at 4.1% annually over the study period. In contrast, the air tours themselves are subject to a cap in the number of allowed operations. The cap is currently 43,960 annual operations in the Zuni and Dragon corridors and 46,300 annual operations elsewhere in GCNP. The 2003 GCNP data from the FSDO indicates that there were 29,809 operations in Zuni/Dragon, and 37499 operations in the remainder of GCNP. The allowable growth factor for the Zuni/Dragon area is therefore 43,960/29809 = 1.4747, and the growth factor for the remainder of GCNP is 46,300/37499 = 1.2347. These growth rates are much less than the (1 + 4.1%)^(2025-2003) = 2.4206 growth factor due to the 4.1% annual increase. The air tours were therefore held at their respective cap growths for the year 2025 alternatives.

Beech 1900 and Regional Jet Operations

For Alternatives two and four, five daily Beech 1900 operations northbound from Flagstaff (FLG) to Salt Lake City (SLC) and five daily southbound return operations from SLC to FLG were added (ten total operations). For Alternatives three and five, eight daily Regional Jet operations northbound from FLG to SLC and eight daily southbound return operations from SLC to FLG were added (sixteen total operations). To assign flight tracks to these operations, all 46 SLC-FLG operations during 2003 were extracted from the ETMS database, and then the operations for each particular aircraft were distributed over these 46 tracks. For the B1900 each track therefore contained 10/46 = .2174 operations, while each RJ track contained 16/46 = .3478 operations. Figure 2 below shows the 46 flight tracks between Flagstaff and Salt Lake City used to model the B1900 and the RJ operations.

General Aviation, Military, and Civil Air Carriers

General Aviation, military, and civil air carrier aircraft operations in the vicinity of the GCNP were collected from the FAA's Performance Data Analysis and Reporting System (PDARS) and the Enhanced Traffic Monitoring System (ETMS). These operational data were also for the PMAD of August 31, 2003. The types of aircraft and the numbers of operations are given below. Unlike the Air Tour data, the PDARS and ETMS data are comprised of actual flight track data collected from area Air Traffic Control radars. The data were cleaned to eliminate redundancies

between the PDARS and ETMS databases. The types of aircraft and the numbers of operations are given below in Table 2.

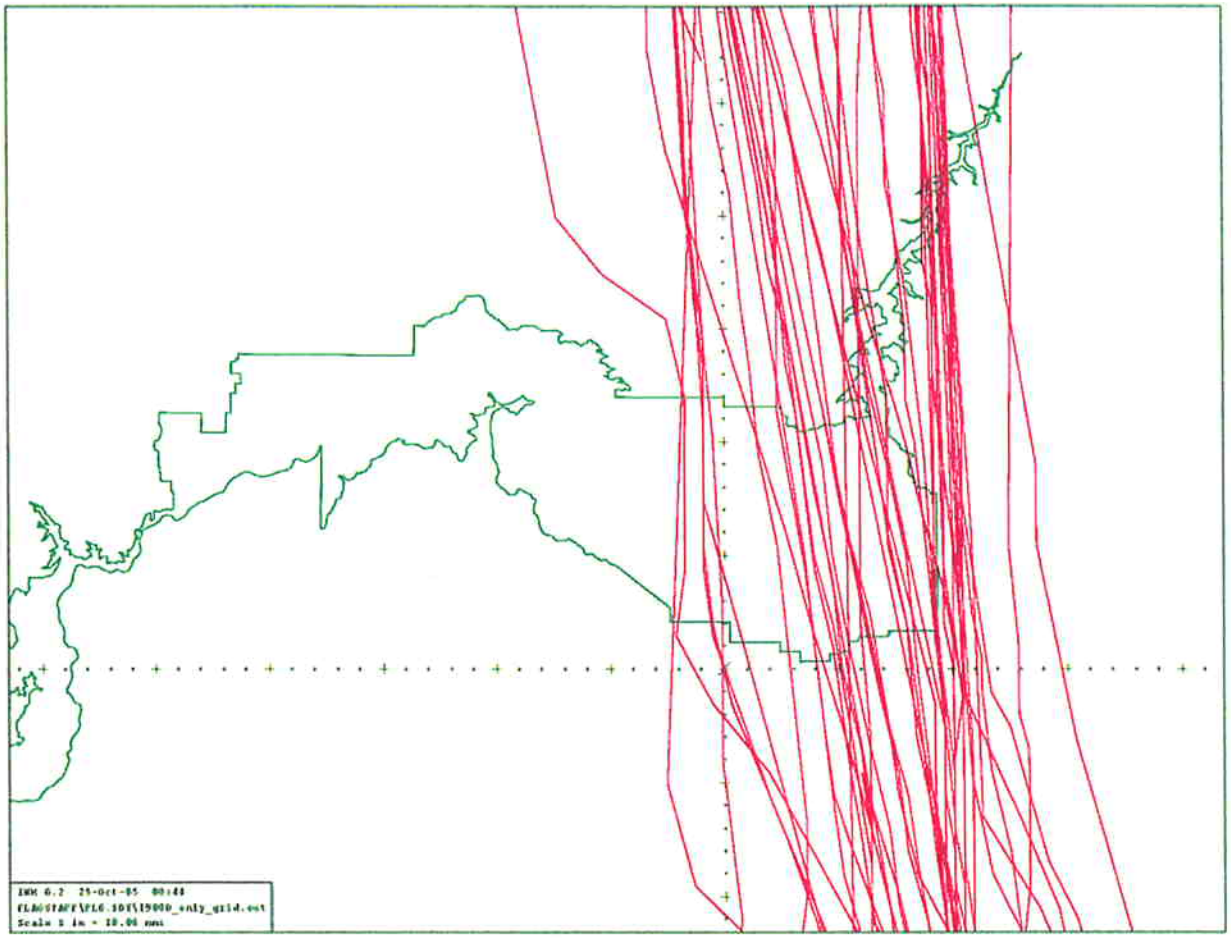

Figure 1, Modeled flight tracks between Flagstaff and Salt Lake City

Table 2, Civil Airline and GA operations from ETMS, August 31, 2003

INM type	Day time operations	Night Time Operations
737300	57	3
737400	7	
737500	3	
737700	56	2
737800	50	4
747400	5	1
767300	21	3
767400	5	
777200	2	
727EM2	12	2
737N17	10	
74720B	1	1
757PW	124	14
767CF6	31	3
A300	1	1
A319	44	6
A320	79	15
A32123	5	
BEC58P	3	
CIT3	4	
CL600	27	
CL601	27	
CNA206	5	
CNA441	3	
CNA500	8	
DHC6	12	
EMB145	40	4
F28MK4		1
GASEPV	7	
GIIB	14	
GIV	15	2
GV	7	
HARRIER	3	
IA1125	13	1
KC135R	1	
LEAR25	13	
LEAR35	39	2
MD11GE		1
MD81	4	
MD82	21	2
MD83	18	1
MD9028	1	
MU3001	44	2
S3A&B	1	
VC10	3	
Totals	846	71

Modeling

INM parameters

The INM was run with 3CD terrain for all cases and studies. The run parameters were set to match those of the Tier 1 analysis. The Lateral Attenuation was set to No Propeller Attenuation.

Noise and performance data for all modeled aircraft followed the techniques used in the FICAN model comparison study "Assessment of Tools for Modeling Aircraft Noise in the National Parks" (http://www.nps.gov/grca/overflights/documents/pdf/fican.pdf).

All site information was collected using INM standard grid points, with a unique grid created for each point of interest. Figure 2 below shows the location of these grid points relative to a boundary map of GCNP.

Time Above metrics were run using the ambient data found in the Final Supplement to the Special Flight Rules in the Vicinity of Grand Canyon National Park, February 2000 Environmental Assessment. At the time of modeling, these ambient date were the best available.

External compilation of results

The commercial air tours, support operations, general aviation, military, and civil over-flights cases were run as separate INM studies. For each of these runs, five metrics were calculated: the maximum sound level (Lmax), Time Above ambient in minutes using the 24 hour day (Time Above, or TA in minutes), Time Above ambient as a percentage of 24 hours (% Time Above, or %TA), the equivalent sound level for the 12 hour period during which the Park was open (Leq-12hr), and the equivalent sound level for the entire 24 hours (Leq-24hr). For the Lmax metric, the maximum value for any of the studies was reported. None of the reported Lmax maximum values are from the B1900 or the RJ operations; all are due to other existing aircraft operating over the Canyon. For the Time Above and % Time Above metrics, the total times and percentages during the 24 hour PMAD for all studies were summed. For the Leq 12-hour and 24-hour metrics, the results from each of the studies were logarithmically added. All these operations were done in an Excel spreadsheet.

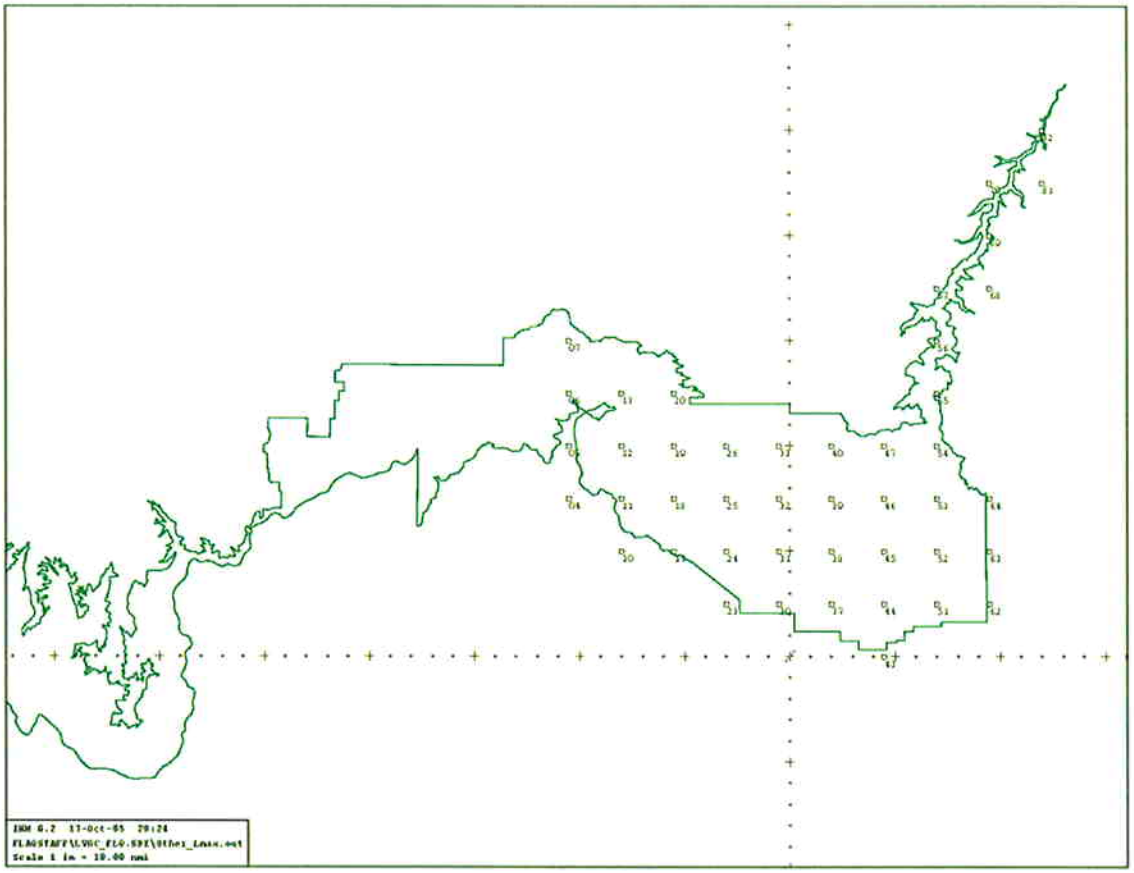

Figure 2, Location of grid points relative to GCNP boundary

Results

The following pages contain the results of the analysis for each of the six alternatives. To highlight the effect of the Beech 1900 and RJ operations, two final tables are presented which contain the subtraction of alternative 6 from alternatives 4 and 5; these two final tables show that the impact of either the No Action or the Action alternative on the GCNP are negligible.

Contributors

Gregg G. Fleming
B.S., Electrical Engineering, University of Lowell, MA, Chief of the Environmental Measurement and Modeling Division at the Volpe Center. Mr. Fleming oversaw all aspects of the noise model assessment related to Grand Canyon National Park.

Christopher J. Roof
B.S., Electrical Engineering and Music, Boston University, MA. Mr. Roof led the study design component of the noise model assessment related to Grand Canyon National Park.

David A. Senzig, PE
M.S., Mechanical Engineering, University of Washington, WA. Mr. Senzig developed the INM studies for the Grand Canyon and Flagstaff projects.

Table 3, Alternative 1: No Action 2003, cumulative operations

GRID_ID	Lamax	TA (minutes)	TA%	Leq-12hr	Leq-24hr
04	65.2	421.0	29.2%	35.7	32.8
05	66.0	351.1	24.4%	36.8	33.9
06	64.7	354.6	24.6%	35.5	32.6
07	63.9	396.6	27.5%	34.0	31.1
10	64.8	549.0	38.1%	35.3	32.4
11	65.2	466.4	32.4%	35.4	32.5
12	65.6	418.4	29.1%	36.2	33.3
13	65.5	6.8	0.5%	36.4	33.5
17	64.2	587.5	40.8%	33.8	30.9
18	65.6	481.3	33.4%	35.2	32.3
19	66.8	76.1	5.3%	37.1	34.1
20	66.0	415.5	28.9%	37.7	34.8
23	64.6	1722.8	100.0%	46.7	43.7
24	66.3	2018.0	100.0%	38.6	35.6
25	66.2	1289.1	89.5%	35.3	32.3
26	65.2	507.2	35.2%	36.2	33.3
30	63.1	231.5	16.1%	36.5	33.6
31	64.4	1699.9	100.0%	34.5	31.7
32	62.5	2066.6	100.0%	43.1	40.1
33	65.2	156.8	10.9%	34.4	31.5
37	64.4	131.7	9.1%	34.2	31.4
38	60.3	643.1	44.7%	33.7	30.9
39	59.9	212.0	14.7%	33.2	30.4
40	64.1	273.5	19.0%	35.0	32.1
43	77.7	263.3	18.3%	49.8	46.8
44	64.8	196.3	13.6%	35.1	32.2
45	61.9	287.0	19.9%	32.5	29.9
46	58.4	128.3	8.9%	33.1	30.4
47	62.3	1019.6	70.8%	38.6	35.6
51	65.3	1035.9	71.9%	37.4	34.4
52	62.9	1029.6	71.5%	41.9	38.9
53	59.1	1118.9	77.7%	36.4	33.5
54	60.6	180.5	12.5%	36.0	33.1
55	64.2	379.5	26.4%	31.6	28.7
56	65.0	371.5	25.8%	35.1	32.3
57	65.9	362.7	25.2%	36.3	33.3
62	65.3	564.8	39.2%	35.5	32.6
63	64.2	621.7	43.2%	34.1	31.3
64	61.5	649.1	45.1%	34.5	31.7
68	65.6	355.8	24.7%	35.7	32.8
69	65.8	348.8	24.2%	33.8	30.9
70	63.4	377.6	26.2%	32.9	30.1
81	65.2	361.5	25.1%	32.8	29.9
82	61.4	15.4	1.1%	31.7	29.0

Table 4, Alternative 2: Additional B1900 operations only in 2025

GRID_ID	Lamax	TA (minutes)	TA%	Leq-12hr	Leq-24hr
04	16.0	0.0	0.0%	-2.3	-5.0
05	15.8	0.0	0.0%	-2.1	-4.8
06	18.6	0.0	0.0%	-1.6	-4.3
07	22.1	0.3	0.0%	-1.3	-4.0
10	21.1	0.3	0.0%	0.0	-2.8
11	21.0	0.3	0.0%	0.3	-2.4
12	20.8	0.3	0.0%	0.8	-2.0
13	22.3	0.0	0.0%	1.4	-1.4
17	28.7	3.6	0.3%	3.9	1.0
18	28.4	3.9	0.3%	4.2	1.3
19	27.9	0.0	0.0%	4.2	1.3
20	28.1	4.9	0.3%	4.8	2.0
23	44.6	6.8	0.5%	12.6	9.6
24	42.5	7.6	0.5%	11.8	8.9
25	42.3	8.3	0.6%	12.0	9.0
26	41.4	9.3	0.6%	11.9	9.0
30	49.3	3.4	0.2%	17.9	14.9
31	46.9	15.1	1.0%	17.4	14.4
32	47.2	16.9	1.2%	17.5	14.6
33	51.5	4.0	0.3%	19.6	16.7
37	46.3	3.1	0.2%	14.6	11.9
38	46.5	22.8	1.6%	15.0	12.7
39	49.8	8.5	0.6%	16.8	15.0
40	49.3	7.6	0.5%	17.9	15.9
43	50.3	6.8	0.5%	19.9	17.7
44	45.7	8.1	0.6%	18.9	16.2
45	50.7	13.8	1.0%	21.3	18.4
46	51.5	8.7	0.6%	22.1	19.1
47	49.7	33.6	2.3%	20.9	17.9
51	45.6	39.0	2.7%	19.1	16.1
52	46.8	38.7	2.7%	19.3	16.4
53	47.7	39.6	2.8%	20.1	17.2
54	45.4	5.5	0.4%	19.0	16.2
55	45.4	34.8	2.4%	18.6	15.8
56	47.2	36.3	2.5%	18.6	15.9
57	44.5	34.8	2.4%	17.5	15.0
62	48.1	39.0	2.7%	22.0	19.4
63	48.1	37.1	2.6%	21.8	19.1
64	47.5	35.2	2.4%	21.3	18.8
68	47.7	29.9	2.1%	21.6	19.1
69	47.7	29.3	2.0%	21.4	18.9
70	47.8	28.9	2.0%	21.2	18.8
81	44.7	18.6	1.3%	13.4	12.0
82	43.8	0.5	0.0%	13.0	11.2

Table 5, Alternative 3: Additional RJ operations only in 2025

GRID_ID	Lamax	TA (minutes)	TA%	Leq-12hr	Leq-24hr
04	6.9	0.0	0.0%	-14.6	-17.5
05	6.6	0.0	0.0%	-14.4	-17.2
06	9.7	0.0	0.0%	-14	-16.8
07	13.9	0.0	0.0%	-13.4	-16.2
10	13.5	0.0	0.0%	-10.9	-13.8
11	13.3	0.0	0.0%	-10.7	-13.6
12	13.1	0.0	0.0%	-10.4	-13.2
13	14	0.0	0.0%	-9.8	-12.6
17	23.2	0.5	0.0%	-4.7	-7.6
18	22.7	0.4	0.0%	-4.8	-7.7
19	22.2	0.0	0.0%	-4.9	-7.8
20	21.8	0.4	0.0%	-4.5	-7.4
23	41.2	2.9	0.2%	7.8	4.8
24	38.7	2.9	0.2%	6.1	3.1
25	38.7	2.9	0.2%	6.1	3.1
26	37.7	2.9	0.2%	5.5	2.5
30	37.5	1.0	0.1%	7.4	4.4
31	35.7	3.9	0.3%	6.9	3.9
32	35	4.1	0.3%	6.9	3.9
33	37.4	1.1	0.1%	8.2	5.3
37	36	0.2	0.0%	5.5	2.7
38	35.1	5.6	0.4%	5.5	2.8
39	36.5	1.4	0.1%	6.7	4.1
40	36.4	1.6	0.1%	7.9	5.2
43	41.9	2.4	0.2%	12.6	9.8
44	40.5	2.4	0.2%	11.4	8.5
45	46.2	5.1	0.4%	14.3	11.3
46	45.8	3.0	0.2%	15	12
47	42.7	11.1	0.8%	13.2	10.2
51	39.7	17.3	1.2%	12.2	9.2
52	36.6	17.0	1.2%	11.8	8.9
53	39.2	17.9	1.2%	12.2	9.3
54	37.8	1.0	0.1%	11.5	8.6
55	38.1	14.8	1.0%	11.5	8.7
56	39.9	16.5	1.1%	12	9.2
57	41.8	15.5	1.1%	11.7	9
62	46.3	23.1	1.6%	19.2	16.3
63	45.5	21.9	1.5%	18.6	15.7
64	43.6	20.9	1.5%	17.8	15.4
68	47.6	18.9	1.3%	18	16.1
69	47.7	18.8	1.3%	17.9	16
70	47.9	19.1	1.3%	17.8	16
81	41.9	11.3	0.8%	9.5	8.8
82	40	0.3	0.0%	8.8	7.5

Table 6, Alternative 4: No Action, 4.1% growth to 2025, cumulative operations

GRID_ID	Lamax	TA (minutes)	TA%	Leq-12hr	Leq-24hr
04	65.2	1018.3	70.7%	39.6	36.7
05	66	849.7	59.0%	40.6	37.7
06	64.7	858.3	59.6%	39.4	36.5
07	63.9	960.2	66.7%	37.8	34.9
10	64.8	1327.4	92.2%	39.2	36.3
11	65.2	1125.6	78.2%	39.3	36.3
12	65.6	1009.7	70.1%	40.0	37.1
13	65.5	16.5	1.1%	40.3	37.3
17	64.2	1404.7	97.5%	37.6	34.8
18	65.6	1161.8	80.7%	39.1	36.1
19	66.8	184.3	12.8%	40.9	38.0
20	66	1008.8	70.1%	41.6	38.7
23	64.6	3174	100.0%	48.6	45.6
24	66.3	3514	100.0%	41.3	38.4
25	66.2	2360.5	100.0%	38.9	36.0
26	65.2	1176.2	81.7%	40.1	37.1
30	63.1	470.7	32.7%	39.9	37.0
31	64.4	3032.8	100.0%	37.7	34.8
32	62.5	3527.9	100.0%	45.1	42.2
33	65.2	314	21.8%	38.0	35.1
37	64.4	310.2	21.5%	38.0	35.2
38	60.3	1472.1	100.0%	37.4	34.7
39	59.9	466.9	32.4%	36.7	34.0
40	64.1	524.6	36.4%	38.3	35.5
43	77.7	515.3	35.8%	51.6	48.6
44	64.8	423.3	29.4%	38.6	35.7
45	61.9	635.3	44.1%	36.2	33.5
46	58.4	272.5	18.9%	36.6	33.9
47	62.3	1925	100.0%	41.1	38.2
51	65.3	2053.1	100.0%	40.5	37.6
52	62.9	2016.1	100.0%	44.0	41.1
53	59.1	2108	100.0%	38.9	36.0
54	60.6	312.3	21.7%	38.4	35.6
55	64.2	894.2	62.1%	35.4	32.6
56	65	919.7	63.9%	39.0	36.1
57	65.9	908.1	63.1%	40.1	37.2
62	65.3	1332.7	92.5%	39.4	36.4
63	64.2	1386.6	96.3%	37.9	35.1
64	61.5	1379.6	95.8%	37.4	34.6
68	65.6	887.8	61.7%	39.5	36.6
69	65.8	873.7	60.7%	37.8	34.9
70	63.4	943	65.5%	36.8	34.0
81	65.2	893.7	62.1%	36.6	33.8
82	61.4	37.6	2.6%	35.6	32.8

Table 7, Alternative 5: Action, 4.1% growth to 2025, cumulative operations

GRID_ID	Lamax	TA (minutes)	TA%	Leq-12hr	Leq-24hr
04	65.2	1018.3	70.7%	39.6	36.7
05	66.0	849.7	59.0%	40.6	37.7
06	64.7	858.3	59.6%	39.4	36.5
07	63.9	960.0	66.7%	37.8	34.9
10	64.8	1327.1	92.2%	39.2	36.3
11	65.2	1125.3	78.1%	39.3	36.3
12	65.6	1009.4	70.1%	40.0	37.1
13	65.5	16.5	1.1%	40.3	37.3
17	64.2	1401.5	97.3%	37.6	34.8
18	65.6	1158.3	80.4%	39.1	36.1
19	66.8	184.3	12.8%	40.9	38.0
20	66.0	1004.3	69.7%	41.6	38.7
23	64.6	3170.1	100.0%	48.6	45.6
24	66.3	3509.2	100.0%	41.3	38.4
25	66.2	2355.1	100.0%	38.9	36.0
26	65.2	1169.8	81.2%	40.1	37.1
30	63.1	468.3	32.5%	39.8	37.0
31	64.4	3021.5	100.0%	37.6	34.8
32	62.5	3515.1	100.0%	45.1	42.2
33	65.2	311.1	21.6%	37.9	35.1
37	64.4	307.3	21.3%	38.0	35.2
38	60.3	1454.8	100.0%	37.4	34.6
39	59.9	459.8	31.9%	36.7	34.0
40	64.1	518.6	36.0%	38.3	35.4
43	77.7	510.9	35.5%	51.6	48.6
44	64.8	417.6	29.0%	38.6	35.7
45	61.9	626.6	43.5%	36.1	33.4
46	58.4	266.7	18.5%	36.5	33.8
47	62.3	1902.5	100.0%	41.1	38.1
51	65.3	2031.4	100.0%	40.5	37.6
52	62.9	1994.5	100.0%	44.0	41.0
53	59.1	2086.3	100.0%	38.9	36.0
54	60.6	307.8	21.4%	38.4	35.5
55	64.2	874.2	60.7%	35.3	32.5
56	65.0	900.0	62.5%	39.0	36.1
57	65.9	888.9	61.7%	40.1	37.2
62	65.3	1316.8	91.4%	39.3	36.4
63	64.2	1371.4	95.2%	37.9	35.0
64	61.5	1365.3	94.8%	37.4	34.6
68	65.6	876.7	60.9%	39.5	36.6
69	65.8	863.1	59.9%	37.7	34.8
70	63.4	933.2	64.8%	36.7	34.0
81	65.2	886.5	61.6%	36.6	33.8
82	61.4	37.4	2.6%	35.6	32.8

Table 8, Alternative 6: No added FLG ops, 4.1% growth to 2025, cumulative operations

GRID_ID	Lamax	TA (minutes)	TA%	Leq-12hr	Leq-24hr
04	65.2	1018.3	70.7%	39.6	36.7
05	66.0	849.7	59.0%	40.6	37.7
06	64.7	858.3	59.6%	39.4	36.5
07	63.9	960.0	66.7%	37.8	34.9
10	64.8	1327.1	92.2%	39.2	36.3
11	65.2	1125.3	78.1%	39.3	36.3
12	65.6	1009.4	70.1%	40.0	37.1
13	65.5	16.5	1.1%	40.3	37.3
17	64.2	1401.1	97.3%	37.6	34.8
18	65.6	1157.9	80.4%	39.1	36.1
19	66.8	184.3	12.8%	40.9	38.0
20	66.0	1003.9	69.7%	41.6	38.7
23	64.6	3167.2	100.0%	48.6	45.6
24	66.3	3506.4	100.0%	41.3	38.4
25	66.2	2352.2	100.0%	38.9	36.0
26	65.2	1166.9	81.0%	40.1	37.1
30	63.1	467.3	32.5%	39.8	37.0
31	64.4	3017.7	100.0%	37.6	34.8
32	62.5	3511.0	100.0%	45.1	42.2
33	65.2	310.0	21.5%	37.9	35.0
37	64.4	307.1	21.3%	38.0	35.2
38	60.3	1449.2	100.0%	37.4	34.6
39	59.9	458.4	31.8%	36.7	34.0
40	64.1	517.0	35.9%	38.3	35.4
43	77.7	508.5	35.3%	51.6	48.6
44	64.8	415.2	28.8%	38.5	35.7
45	61.9	621.5	43.2%	36.1	33.4
46	58.4	263.8	18.3%	36.5	33.8
47	62.3	1891.4	100.0%	41.1	38.1
51	65.3	2014.1	100.0%	40.5	37.6
52	62.9	1977.5	100.0%	44.0	41.0
53	59.1	2068.4	100.0%	38.9	35.9
54	60.6	306.8	21.3%	38.4	35.5
55	64.2	859.4	59.7%	35.3	32.5
56	65.0	883.4	61.3%	38.9	36.1
57	65.9	873.4	60.7%	40.1	37.2
62	65.3	1293.7	89.8%	39.3	36.4
63	64.2	1349.5	93.7%	37.9	35.0
64	61.5	1344.5	93.4%	37.3	34.5
68	65.6	857.9	59.6%	39.5	36.6
69	65.8	844.3	58.6%	37.7	34.8
70	63.4	914.1	63.5%	36.7	33.9
81	65.2	875.1	60.8%	36.6	33.7
82	61.4	37.2	2.6%	35.5	32.8

Table 9, Difference: Alt 4 minus Alt 6, (impact of B1900 operations in 2025)

GRID_ID	Change in Lamax	Change in TA (min.)	Change in TA%	Change in Leq-12hr	Change in Leq-24hr
04	0.0	0.0	0.0%	0.0	0.0
05	0.0	0.0	0.0%	0.0	0.0
06	0.0	0.0	0.0%	0.0	0.0
07	0.0	0.2	0.0%	0.0	0.0
10	0.0	0.3	0.0%	0.0	0.0
11	0.0	0.3	0.0%	0.0	0.0
12	0.0	0.3	0.0%	0.0	0.0
13	0.0	0.0	0.0%	0.0	0.0
17	0.0	3.6	0.3%	0.0	0.0
18	0.0	3.9	0.3%	0.0	0.0
19	0.0	0.0	0.0%	0.0	0.0
20	0.0	4.9	0.3%	0.0	0.0
23	0.0	6.8	0.0%	0.0	0.0
24	0.0	7.6	0.0%	0.0	0.0
25	0.0	8.3	0.0%	0.0	0.0
26	0.0	9.3	0.6%	0.0	0.0
30	0.0	3.4	0.2%	0.0	0.0
31	0.0	15.1	0.0%	0.0	0.0
32	0.0	16.9	0.0%	0.0	0.0
33	0.0	4.0	0.3%	0.1	0.1
37	0.0	3.1	0.2%	0.0	0.0
38	0.0	22.9	0.0%	0.0	0.0
39	0.0	8.5	0.6%	0.0	0.0
40	0.0	7.6	0.5%	0.0	0.0
43	0.0	6.8	0.5%	0.0	0.0
44	0.0	8.1	0.6%	0.1	0.1
45	0.0	13.8	1.0%	0.1	0.1
46	0.0	8.7	0.6%	0.2	0.1
47	0.0	33.6	0.0%	0.0	0.0
51	0.0	39.0	0.0%	0.0	0.0
52	0.0	38.6	0.0%	0.0	0.0
53	0.0	39.6	0.0%	0.1	0.1
54	0.0	5.5	0.4%	0.1	0.1
55	0.0	34.8	2.4%	0.1	0.1
56	0.0	36.3	2.5%	0.0	0.0
57	0.0	34.7	2.4%	0.0	0.0
62	0.0	39.0	2.7%	0.1	0.1
63	0.0	37.1	2.6%	0.1	0.1
64	0.0	35.1	2.4%	0.1	0.1
68	0.0	29.9	2.1%	0.1	0.1
69	0.0	29.4	2.0%	0.1	0.1
70	0.0	28.9	2.0%	0.1	0.1
81	0.0	18.6	1.3%	0.0	0.0
82	0.0	0.4	0.0%	0.0	0.0

Table 10, Difference: Alt 5 minus Alt 6, (impact of RJ operations in 2025)

GRID_ID	Change in Lamax	Change in TA (min.)	Change in TA%	Change in Leq-12hr	Change in Leq-24hr
04	0.0	0.0	0.0%	0.0	0.0
05	0.0	0.0	0.0%	0.0	0.0
06	0.0	0.0	0.0%	0.0	0.0
07	0.0	0.0	0.0%	0.0	0.0
10	0.0	0.0	0.0%	0.0	0.0
11	0.0	0.0	0.0%	0.0	0.0
12	0.0	0.0	0.0%	0.0	0.0
13	0.0	0.0	0.0%	0.0	0.0
17	0.0	0.4	0.0%	0.0	0.0
18	0.0	0.4	0.0%	0.0	0.0
19	0.0	0.0	0.0%	0.0	0.0
20	0.0	0.4	0.0%	0.0	0.0
23	0.0	2.9	0.0%	0.0	0.0
24	0.0	2.8	0.0%	0.0	0.0
25	0.0	2.9	0.0%	0.0	0.0
26	0.0	2.9	0.2%	0.0	0.0
30	0.0	1.0	0.1%	0.0	0.0
31	0.0	3.8	0.0%	0.0	0.0
32	0.0	4.1	0.0%	0.0	0.0
33	0.0	1.1	0.1%	0.0	0.0
37	0.0	0.2	0.0%	0.0	0.0
38	0.0	5.6	0.0%	0.0	0.0
39	0.0	1.4	0.1%	0.0	0.0
40	0.0	1.6	0.1%	0.0	0.0
43	0.0	2.4	0.2%	0.0	0.0
44	0.0	2.4	0.2%	0.0	0.0
45	0.0	5.1	0.4%	0.0	0.0
46	0.0	2.9	0.2%	0.0	0.0
47	0.0	11.1	0.0%	0.0	0.0
51	0.0	17.3	0.0%	0.0	0.0
52	0.0	17.0	0.0%	0.0	0.0
53	0.0	17.9	0.0%	0.0	0.0
54	0.0	1.0	0.1%	0.0	0.0
55	0.0	14.8	1.0%	0.0	0.0
56	0.0	16.6	1.2%	0.0	0.0
57	0.0	15.5	1.1%	0.0	0.0
62	0.0	23.1	1.6%	0.1	0.1
63	0.0	21.9	1.5%	0.0	0.0
64	0.0	20.8	1.4%	0.1	0.0
68	0.0	18.8	1.3%	0.0	0.0
69	0.0	18.8	1.3%	0.1	0.1
70	0.0	19.1	1.3%	0.1	0.1
81	0.0	11.4	0.8%	0.0	0.0
82	0.0	0.2	0.0%	0.0	0.0

FLAGSTAFF
PULLIAM AIRPORT

Appendix M

Summary of the Second Public Hearing

Appendix M
SUMMARY OF THE SECOND PUBLIC HEARING CONDUCTED ON THE CONTENTS OF THE AMENDED DRAFT EA FOR PROPOSED IMPROVEMENTS AT FLAGSTAFF PULLIAM AIRPORT

A second public hearing was held on the *Amended Draft Environmental Assessment* (EA) prepared for proposed improvements at Flagstaff Pulliam Airport on January 19, 2006, from 6:00 to 8:00 pm. The hearing was held on the second floor of the airport terminal building. The City of Flagstaff published a legal notice announcing the date, time, and location of the hearing in the Arizona Daily Sun on December 11, 2005. The notice outlined the proposed improvements at the airport and listed locations at which the EA could be viewed. Viewing locations, as stated within the legal notice, included Flagstaff City Hall, the Flagstaff City Library, the Airport Administrative offices, and the offices of the Federal Aviation Administration (FAA) Western-Pacific Region. A copy of the legal notice is included in **Attachment A**. To further ensure public knowledge of the hearing, a display ad was printed in the newspaper approximately two weeks prior to the hearing. A copy of the display ad is also contained within **Attachment A**.

Unfortunately, the legal notice incorrectly stated that the Amended Draft EA could be viewed on the Coffman Associates website. To remedy the discrepancy, hard copies of the document were either mailed or sent via Federal Express to individuals or organizations that attempted to download the document. Copies of the document were mailed to Mr. Berne C. Hart with Chevalier, Allen & Lichman

LLP, and Ms. Sharon Jones, a Flagstaff area resident. Copies of the transmittal letters and Federal Express receipts are included in **Attachment B**.

The public hearing began promptly at 6:00 pm with a PowerPoint presentation given by Steve Benson of Coffman Associates. A copy of the slide presentation from the hearing is included within **Attachment C**. The hearing was attended by twelve individuals, not including the consultants that prepared the study. Attendees consisted of members of the public and representatives of the Sierra Club, Pine Canyon Club, National Park Service, and the City of Flagstaff. A copy of the hearing sign-in sheet is contained in **Attachment D.** Five individuals requested the opportunity to speak during the hearing. Their registration forms are contained in **Attachment D** and the official transcript containing their comments is included in **Attachment E**. Written comments regarding the document were received from the Sierra Club; Chevalier, Allen & Lichman LLP; and the Sedona Airport Safety Council. Copies of the written comments are contained after the hearing transcript in **Attachment E**.

Due to comments received during the public comment period on the Draft EA the FAA requested that the comment period be extended for an additional 30 days. A legal notice announcing the 30-day extension was printed in the Arizona Daily Sun on March 26, 2006. The comment period ended on April 24, 2006. Certified letters were sent to each of the original Amended Draft EA commentors. A copy of the legal notice as well as the certified mail receipts are contained in **Attachment A**.

At the request of the FAA, the consultants have responded to all of the comments received (during both 30-day comment periods) regarding the contents of the Amended Draft EA. A summary of the comments received and responses to those comments are contained in **Attachment F**.

ATTACHMENT A

AFFIDAVIT/PROOF OF PUBLICATION

STATE OF ARIZONA

} ss.

County of Coconino

Bobbie Crosby being duly sworn, deposes and says:

That she is the legal clerk of the Arizona Daily Sun

a newspaper published at Flagstaff, Coconino County, Arizona; that the

legal 7553

a copy of which is

hereunto attached, was first published in said newspaper in its issue dated

the 11 day of December, 2005 and was

published in each one issue of said newspaper for one

consecutive day the last publication being in the issue dated the

11 day of December, 2005

Subscribed and sworn to before me this

28 day of December 2005

Nancy Anderson

Notary Public

"OFFICIAL SEAL"
Nancy Anderson
Notary Public-Arizona
Coconino County
My Commission Expires 9/2/2006

My Commission expires 9/02/2006

Legal No. 7553
NOTICE OF PUBLIC HEARING
CONCERNING PROPOSED IMPROVEMENTS
AT FLAGSTAFF PULLIAM AIRPORT
FLAGSTAFF, ARIZONA

The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, has prepared a REVISED DRAFT ENVIRONMENTAL ASSESSMENT (EA) for the proposed improvements at Flagstaff Pulliam Airport to present the revised analysis of noise impacts on National Parks in the vicinity of the proposed airport project.

A Draft Environmental Assessment on the proposed improvements was provided July 2005, to examine the environmental consequences of proposed improvements at the airport. The EA discusses the purpose and need of the proposed federal action, evaluates alternatives, and identifies environmental consequences of the following actions: 1,801 foot extension to Runway 3-21, and acquisition of property from the U.S. Forest Service. The Revised Draft EA contains new analysis of the noise impacts as a result of the comments received on the Drat EA. The Federal Aviation Administration (FAA) is the Lead Federal Agency for the project.

A public workshop and public hearing will be held regarding the Revised Draft EA between the hours of 6:00 p.m. and 8:00 p.m. on Thursday, January 19, 2006 at Flagstaff Pulliam Airport, 211 West Aspen Avenue, Flagstaff, Arizona.

Representatives of the City of Flagstaff and the consultants who prepared the document will be available at the workshop to explain the proposed project. Participants will be given an opportunity to provide formal comment on the project to a court reporter at the public hearing portion of the meeting, or to submit written comments for the record. Interested persons are invited to come at anytime between the hours provided above and participate in the workshop.

Beginning December 19, 2005, a copy of the Draft EA will be available for public review at the following locations during normal business hours:

City Hall- 211 West Aspen Ave
Library- 300 West Aspen
Airport Administration- 6200 S. Pulliam Dr, Suite 204
Western-Pacific Region, FAA, 15000 Aviation Boulevard, Hawthorne, California

The document will also be available for viewing and comment on the following website: www.coffmanassociates.com.

As indicated above, the public hearing is intended to afford the public an opportunity to present oral or written comments related to the project. **ALL ORAL COMMENTS WILL BE TRANSCRIBED FOR THE RECORD.** Written comments will also be accepted at the address provided below until 8:00 p.m. on January 19, 2006. Please direct your comments to: Mr. Michael A. Covalt
Airport Manager
Charles B. Wheeler Downtown Airport 6200 S. Pulliam Drive, Suite 204 Flagstaff, AZ 86001
PUB: Dec. 11, 2005 7553

NOTICE OF PUBLIC HEARING

on the Environmental Assessment for Proposed Airport Improvements Including a 1,801' Extension to Runway 3-21

FLAGSTAFF

PULLIAM AIRPORT

Thursday, January 19, 2006
6:00-8:00 P.M.

Airport Terminal Building, Second Floor

EVERYONE IS WELCOME

Hearing begins at 6:00. Comments will be taken following a brief presentation.

The Environmental Assessment can be viewed at the following locations:

- Flagstaff City Hall - 211 W. Aspen Ave.
- Flagstaff Public Library - 300 W. Aspen Ave.
- Airport Administration - 6200 S. Pulliam Dr.

AFFIDAVIT/PROOF OF PUBLICATION

STATE OF ARIZONA

} ss.

County of Coconino

Bobbie Crosby being duly sworn, deposes and says:

That she is the legal clerk of the Arizona Daily Sun

a newspaper published at Flagstaff, Coconino County, Arizona; that the

legal 7868

a copy of which is

hereunto attached, was first published in said newspaper in its issue dated

the 26 day of March, 2006 and was

published in each one issue of said newspaper for one

consecutive day the last publication being in the issue dated the

26 day of March, 2006.

Legal No. 7868
NOTICE OF EXTENDED COMMENT PERIOD ON AN AMENDED DRAFT ENVIRONMENTAL ASSESSMENT CONCERNING PROPOSED IMPROVEMENTS AT FLAGSTAFF PULLIAM AIRPORT
FLAGSTAFF, ARIZONA
The City of Flagstaff, as the sponsor for Flagstaff Pulliam Airport, prepared an AMENDED DRAFT ENVIRONMENTAL ASSESSMENT (EA) for proposed improvements at the airport. The Amended Draft EA was originally released for public review and comment on December 19, 2005 and the comment period on the document ended at the close of a public hearing on January 19, 2006. Due to comments received by the public, the comment period for this document has been extended until 5:00 p.m. mountain standard time on April 24, 2006. Comments should be directed to the following address:
Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001
Beginning March 26, 2006, a copy of the Amended Draft EA will be available for public review at the following locations during normal business hours:
City Hall- 211 West Aspen Ave
Library- 300 West Aspen
Airport Administration- 6200 S. Pulliam Dr. Suite 204
Western-Pacific Region, FAA, 15000 Aviation Boulevard, Lawndale, California
The Amended Draft EA evaluates the environmental consequences of a 1,801 foot extension to Runway 3-21. The Federal Aviation Administration (FAA) is the Lead Federal Agency for the project.
PUB: Mar. 26, 2006 7868

"OFFICIAL SEAL"
Nancy Anderson
Notary Public-Arizona
Coconino County
My Commission Expires 9/2/2006

Subscribed and sworn to before me this

13 day of April, 2006

Nancy Anderson

Notary Public

My Commission expires 9/2/2006

Molly

Coffman Associates
Airport Consultants

March 21, 2006

Dr. Barbara Lichman
Chevalier, Allen, & Lichman
695 Town Center Drive, Suite 700
Costa Mesa, CA 92626

Re: Extension of Comment Period for the Amended Draft Environmental Assessment Prepared for Proposed Improvements at Flagstaff Pulliam Airport

Dear Dr. Lichman:

The purpose of this letter is to inform you of an extended comment period for the Amended Draft Environmental Assessment (EA) which was prepared for proposed improvements at the airport. The Amended Draft EA was originally released for public review and comment on December 19, 2005, and the comment period on the document ended at the close of a public hearing on January 19, 2006. Due to comments received by the public, the comment period for this document has been extended until 5:00 p.m. Mountain Standard Time on April 24, 2006. Comments should be directed to the following address:

Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

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- City Hall- 211 West Aspen Ave
- Library- 300 West Aspen
- Airport Administration- 6200 S. Pulliam Dr, Suite 204
- Western-Pacific Region, FAA, 15000 Aviation Boulevard, Lawndale, California

The Amended Draft EA evaluates the environmental consequences of a 1,801-foot extension to Runway 3-21. The Federal Aviation Administration (FAA) is the *Lead Federal Agency* for the project.

Should you have any questions or comments regarding the availability of this document, please do not hesitate to contact me at (816) 524-3500.

Sincerely,

Molly Waller

Molly Waller
Airport Environmental Planner

Cc: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

March 21, 2006

Mr. Michael Cosgrove
Sedona Airport Safety Council
P.O. Box 3758
Sedona, AZ 86340

Re: Extension of Comment Period for the Amended Draft Environmental Assessment Prepared for Proposed Improvements at Flagstaff Pulliam Airport

Dear Mr. Cosgrove:

The purpose of this letter is to inform you of an extended comment period for the Amended Draft Environmental Assessment (EA) which was prepared for proposed improvements at the airport. The Amended Draft EA was originally released for public review and comment on December 19, 2005, and the comment period on the document ended at the close of a public hearing on January 19, 2006. Due to comments received by the public, the comment period for this document has been extended until 5:00 p.m. Mountain Standard Time on April 24, 2006. Comments should be directed to the following address:

Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

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- Airport Administration- 6200 S. Pulliam Dr, Suite 204
- Western-Pacific Region, FAA, 15000 Aviation Boulevard, Lawndale, California

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Should you have any questions or comments regarding the availability of this document, please do not hesitate to contact me at (816) 524-3500.

Sincerely,

Molly Waller
Airport Environmental Planner

Cc: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

March 21, 2006

Ms. Gloria Slipher
627 Beal Road
Flagstaff, AZ 86001

Re: Extension of Comment Period for the Amended Draft Environmental Assessment Prepared for Proposed Improvements at Flagstaff Pulliam Airport

Dear Ms. Slipher:

The purpose of this letter is to inform you of an extended comment period for the Amended Draft Environmental Assessment (EA) which was prepared for proposed improvements at the airport. The Amended Draft EA was originally released for public review and comment on December 19, 2005, and the comment period on the document ended at the close of a public hearing on January 19, 2006. Due to comments received by the public, the comment period for this document has been extended until 5:00 p.m. Mountain Standard Time on April 24, 2006. Comments should be directed to the following address:

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Flagstaff Pulliam Airport
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Sincerely,

Molly Waller
Airport Environmental Planner

Cc: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

March 21, 2006

Mr. John W. Martin
2515 Heidi Loop
Flagstaff, AZ 86004

Re: Extension of Comment Period for the Amended Draft Environmental Assessment Prepared for Proposed Improvements at Flagstaff Pulliam Airport

Dear Mr. Martin:

The purpose of this letter is to inform you of an extended comment period for the Amended Draft Environmental Assessment (EA) which was prepared for proposed improvements at the airport. The Amended Draft EA was originally released for public review and comment on December 19, 2005, and the comment period on the document ended at the close of a public hearing on January 19, 2006. Due to comments received by the public, the comment period for this document has been extended until 5:00 p.m. Mountain Standard Time on April 24, 2006. Comments should be directed to the following address:

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Flagstaff Pulliam Airport
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Sincerely,

Molly Waller
Airport Environmental Planner

Cc: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

March 21, 2006

Mr. Earl Slipher
627 Beal Road
Flagstaff, AZ 86001

Re: Extension of Comment Period for the Amended Draft Environmental Assessment Prepared for Proposed Improvements at Flagstaff Pulliam Airport

Dear Mr. Slipher:

The purpose of this letter is to inform you of an extended comment period for the Amended Draft Environmental Assessment (EA) which was prepared for proposed improvements at the airport. The Amended Draft EA was originally released for public review and comment on December 19, 2005, and the comment period on the document ended at the close of a public hearing on January 19, 2006. Due to comments received by the public, the comment period for this document has been extended until 5:00 p.m. Mountain Standard Time on April 24, 2006. Comments should be directed to the following address:

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Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

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Sincerely,

Molly Waller
Airport Environmental Planner

Cc: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

March 21, 2006

Mr. Paul T. Jones
3641 E. Foxlair Drive
Flagstaff, AZ 86004

Re: Extension of Comment Period for the Amended Draft Environmental Assessment Prepared for Proposed Improvements at Flagstaff Pulliam Airport

Dear Mr. Jones:

The purpose of this letter is to inform you of an extended comment period for the Amended Draft Environmental Assessment (EA) which was prepared for proposed improvements at the airport. The Amended Draft EA was originally released for public review and comment on December 19, 2005, and the comment period on the document ended at the close of a public hearing on January 19, 2006. Due to comments received by the public, the comment period for this document has been extended until 5:00 p.m. Mountain Standard Time on April 24, 2006. Comments should be directed to the following address:

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Sincerely,

Molly Waller
Airport Environmental Planner

Cc: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

March 21, 2006

Mr. Jim McCarthy
2087 W. Fresh Aire Street
Flagstaff, AZ 86001

Re: Extension of Comment Period for the Amended Draft Environmental Assessment Prepared for Proposed Improvements at Flagstaff Pulliam Airport

Dear Mr. McCarthy:

The purpose of this letter is to inform you of an extended comment period for the Amended Draft Environmental Assessment (EA) which was prepared for proposed improvements at the airport. The Amended Draft EA was originally released for public review and comment on December 19, 2005, and the comment period on the document ended at the close of a public hearing on January 19, 2006. Due to comments received by the public, the comment period for this document has been extended until 5:00 p.m. Mountain Standard Time on April 24, 2006. Comments should be directed to the following address:

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Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

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Sincerely,

Molly Waller
Airport Environmental Planner

Cc: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

March 21, 2006

Mr. Shaun Lane
Pine Canyon Club
1201 E. John Wesley Powell Blvd.
Flagstaff, AZ 86001

Re: Extension of Comment Period for the Amended Draft Environmental Assessment Prepared for Proposed Improvements at Flagstaff Pulliam Airport

Dear Mr. Lane:

The purpose of this letter is to inform you of an extended comment period for the Amended Draft Environmental Assessment (EA) which was prepared for proposed improvements at the airport. The Amended Draft EA was originally released for public review and comment on December 19, 2005, and the comment period on the document ended at the close of a public hearing on January 19, 2006. Due to comments received by the public, the comment period for this document has been extended until 5:00 p.m. Mountain Standard Time on April 24, 2006. Comments should be directed to the following address:

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Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

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- Airport Administration- 6200 S. Pulliam Dr, Suite 204
- Western-Pacific Region, FAA, 15000 Aviation Boulevard, Lawndale, California

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Should you have any questions or comments regarding the availability of this document, please do not hesitate to contact me at (816) 524-3500.

Sincerely,

Molly Waller
Airport Environmental Planner

Cc: Michelle Simmons, FAA
Michael A. Covalt, City of Flagstaff
William L. Menard, City of Flagstaff
Jim Harris, Coffman Associates

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
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1. Article Addressed to:

Mr. Jim McCarthy
2087 W. Fresh Air St.
Flagstaff, AZ 86001

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) | C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☒ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7005 3110 0003 1678 8242

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ms. Gloria Slipher
627 Beal Road
Flagstaff, AZ 86001

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) Gloria Slipher | C. Date of Delivery 3/27/06

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☒ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Earl Slipher
627 Beal Road
Flagstaff, AZ 86001

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) Gloria Slipher | C. Date of Delivery 3/27/06

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☒ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7005 3110 0003 1678 8259

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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Dr. Barbara Lichman
Chevalier, Allen, + Lichman
695 Town Center Drive
Suite 700
Costa Mesa, CA 92626

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) | C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☑ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number
(Transfer from service label) 7005 3110 0003 1678 8303

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Paul T. Jones
3641 E. Foxlair Drive
Flagstaff, AZ 86004

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) SHARON JONES | C. Date of Delivery 3-28-06

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☑ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number
(Transfer from service label) 7005 3110 0003 1678 8266

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. John W. Martin
2515 Heidi Loop
Flagstaff, AZ 86004

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) John W Martin | C. Date of Delivery 3/27/06

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☑ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number
(Transfer from service label) 7005 3110 0003 1678 8273

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

ATTACHMENT B

AIRPORT PLANNING IS OUR ONLY BUSINESS
www.coffmanassociates.com

Coffman Associates
Airport Consultants

file

January 12, 2006

Mr. Berne C. Hart
Chevalier, Allen & Lichman LLP
695 Town Center Drive, Suite 700
Costa Mesa, California 92626

Re: ***Amended Draft Environmental Assessment for Proposed Improvements at Flagstaff Pulliam Airport***

Dear Mr. Hart:

Enclosed please find a copy of the *Amended Draft Environmental Assessment for Proposed Airport Improvements at Flagstaff Pulliam Airport*, Flagstaff, Arizona for your review.

If you have any questions, please feel free to call me.

Sincerely,

Molly Waller

Molly Waller
Airport/Environmental Planner

Kansas City • Phoenix

237 N.W. Blue Parkway, Suite 100, Lee's Summit, MO 64063 • Phone: 816.524.3500 • FAX: 816.524.2575

From: Origin ID: (816)524-3500
MOLLY WALLER
COFFMAN ASSOCIATES, INC
237 N.W. BLUE PARKWAY, STE. 100

LEE'S SUMMIT, MO 64063

FedEx Express

CLS 102705/09/16

Ship Date: 12JAN06
ActWgt: 5 LB
System#: 2426304/INET2300
Account#: S *********

REF: Flagstaff ADEA

Delivery Address Bar Code

SHIP TO: (714)384-6520 **BILL SENDER**

Mr. Berne C. Hart
Chevalier, Allen & Lichman LLP
695 Town Center Drive
Suite 700
Costa Mesa, CA 92626

PRIORITY OVERNIGHT

FRI
Deliver By:
13JAN06

TRK# 7926 2994 0677 FORM 0201

SNA A2

92626 -CA-US

NG TWHA

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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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		Declared Value:	0 USD
		Shipper Account Number:	100050277
		Bill transportation to:	100050277
From:	MOLLY WALLER COFFMAN ASSOCIATES, INC 237 N.W. BLUE PARKWAY, STE. 100 LEE'S SUMMIT, MO 64063 US 8165243500	**Courtesy Rate Quote**	*36.35
		Discounted variable %	0.00
		Special Services:	
		Purpose:	
		Shipment Type:	Express
Tracking no:	792629940677		
Your reference:	Flagstaff ADEA		
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Service Type:	Priority Overnight		

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Airport Consultants

file

Sent reg. mail

January 5, 2006

Ms. Sharon Jones
P.O. Box 597
Flagstaff, AZ 86002-0597

Dear Ms. Jones:

Per your request, enclosed is one (1) copy of the Amended Draft Environmental Assessment for Proposed Airport Improvements at Flagstaff Pulliam Airport. If you need anything further, please do not hesitate to call me.

Sincerely,

Molly Waller

Molly Waller
Airport Environmental Planner

Enclosures

Cc: Bill Menard, City of Flagstaff
Mike Covalt, Airport Manager
Jim Harris, Coffman Associates

Kansas City • Phoenix
237 N.W. Blue Parkway, Suite 100, Lee's Summit, MO 64063 • Phone: 816.524.3500 • FAX: 816.524.2575

ATTACHMENT C

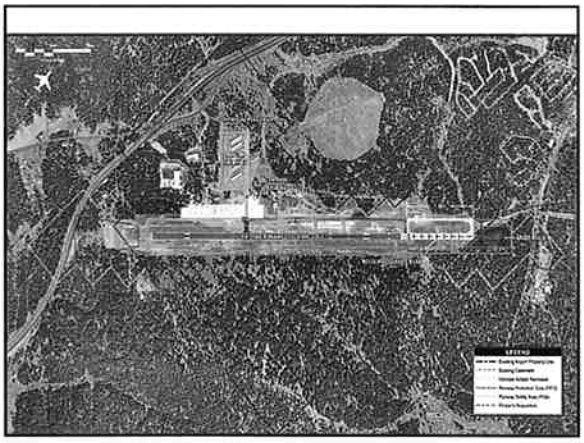
Public Hearing

Amended Draft Environmental Assessment
for Proposed Improvements at Flagstaff
Pulliam Airport

January 19, 2006

Projects Evaluated Within the EA

- 1,801-foot extension to Runway 3-21
  - The proposed extension results in a pavement length of 8,800 feet; however, landing distance available on Runway 21 will remain at 6,999 feet.
  - Extension is needed to accommodate existing users of the airport as well as to support the potential transition of the commercial fleet from turbo-prop to regional jet aircraft.
- Acquisition of land contained within the extended runway's RSA and RPZ.



Project History

- **July 20, 2005.** Draft EA was made available for review.
- **August 18, 2005.** Public Information Workshop and Public Hearing were held regarding the Draft EA findings.
- **August 26, 2005.** Formal public comment period closed on the Draft EA.
- **December 20, 2005.** Public notice was printed announcing the date and time of this public hearing as well as the locations the Amended Draft EA could be reviewed.

August 2005 Public Hearing/Public Information Workshop

- A public information workshop was held concurrently with the August 2005 public hearing. This workshop allowed the public and agencies to interact one-on-one with the consultants that prepared the study. Questions were answered during the workshop and corrected forecast tables were provided.

Amended Draft EA Contents

- The EA was updated to reflect the passage of the *Northern Arizona Land Exchange and Verde River Basin Partnership Act of 2005.*
- Forecasts presented in Chapter One were revisited to ensure consistency between the Airport Master Plan and the EA.
- Comments received on the Draft EA, responses to those comments, and materials pertaining to the first public hearing are included as Appendices I and J.
- The Integrated Noise Model (INM) input files are included as Appendix K.
- The updated Grand Canyon National Park Noise Analysis is included as Appendix L.

Purpose of this Public Hearing

- As a result of comments received during the Draft EA comment period, the Supplemental Noise Analysis was revisited as it pertained to potential noise impacts on National Park Units.
- The purpose of this hearing is to present the results of this analysis and allow for public and agency comment on the new findings.
- This presentation is focused on the **revised Supplemental Noise Analysis** included within the Amended Draft EA. Information regarding the other sections of the document was addressed during the August 2005 Public Information Workshop and Hearing.

Hearing Format

- A brief presentation will be given regarding the changes to the Supplemental Noise Analysis.
- Following the presentation, hearing attendees will be allowed to comment on the Amended Draft EA. All comments will be made part of the record. Individuals wishing to comment will be allowed a total of three (3) minutes to state their comment(s).
- **This hearing is designed to allow for public and agency comment on the revised Supplemental Noise Analysis and will not serve as a forum for debate or a question/answer session.**

Summary of Comments Received Regarding Previous Cumulative Impact Analysis and Approach Taken to Address Comments

- In regards to the cumulative noise analysis for GCNP, the alternatives evaluated did not appear to evaluate all overflights of the park including air tour and military operations.
  - The analysis was expanded to include all overflight of the GCNP, including air tour and military activity.
- A depiction of the flight tracks analyzed for the GCNP was not included.
  - Exhibits were included to depict the flight tracks which were analyzed over the National Park Units.

Summary of Comments Received Regarding Previous Cumulative Impact Analysis and Approach Taken to Address Comments (cont'd)

- The alternatives presented within the GCNP analysis were not detailed enough to provide the reader the ability to draw a conclusion other than what was presented within the text.
  - Additional alternatives were introduced to the GCNP noise analysis.
  - A technical report was provided by the Volpe Center Acoustics Facility which outlined the sources of information used for the GCNP analysis, the methodology used for the analysis, the analysis inputs, and the analysis results. This report is included as Appendix L of the Amended Draft EA.
- The Time Above (TA) noise metric did not appear to be presented correctly.
  - The TAA metric was further defined within the noise analysis.

Resulting Changes in Tier One Analysis

- Exhibits and text were refined based on comments received from the National Park Service.

Resulting Changes in Tier Two Analysis

- Additional alternatives were introduced to evaluate the potential incremental and cumulative noise impact of commercial operations from FLG to Salt Lake City.
- Inconsistencies regarding the TAA noise metric were corrected.

Alternatives Evaluated Within Tier Two Analysis

- **Alternative One** – Existing Condition
- **Alternative Two** – Long-range No Action Alternative (assumes the introduction of Beech 1900 aircraft to and from Salt Lake City)
- **Alternative Three** – Long-range Proposed Action Alternative (assumes the introduction of Beech 1900 aircraft to and from Salt Lake City)
- **Alternative Four** – Cumulative Long-range No Action Alternative (analyzes the introduction of Beech 1900 aircraft to and from Salt Lake City as well as all other activity over GCNP)
- **Alternative Five** – Cumulative Long-range Proposed Action Alternative (analyzes the introduction of regional jet aircraft to and from Salt Lake City as well as all other activity over GCNP)
- **Alternative Six** – Cumulative Forecast Existing Condition (analyzed the noise condition should commercial service to Salt Lake City not be introduced at FLG)

Grid Points Analyzed within Tier Two Analysis

- Insert exhibit 4J

Grid points that experienced no change when comparing the Proposed Action and No Action alternatives are depicted in ORANGE. Grid points that experienced a decreased noise impact with implementation of the Proposed Action Alternative are presented in GREEN.

Summary of the Updated Analysis Results

- The assumption of a 4.1 percent compound annual growth rate of aircraft operations over GCNP (over 21 years) results in noticeable TAA increases (Alternative One compared to Alternative 6). However, future commercial service operations from FLG to Salt Lake City by regional jets represent a negligible portion of this increase (Alternative 5 versus Alternative 6).

(The table on the following slide depicts the grid point locations that realized an increase in TAA. Grid points which are not depicted did not experience an increase in TAA with implementation of the proposed action or no action alternatives.)

Grid Point ID	Alternative 1 – 2004 Cumulative Existing Condition TAA	Alternative 6 – 2025 Cumulative Forecast Existing Condition	Alternative 5 – 2025 Proposed Action Cumulative Condition	Alternative 5 Compared to Alternative 6
26	35.2%	81.0%	81.2%	0.2%
30	16.1%	32.5%	32.5%	0.1%
33	10.9%	21.5%	21.6%	0.1%
39	14.7%	31.8%	31.9%	0.1%
40	19.0%	35.9%	36.0%	0.1%
43	18.3%	35.3%	35.5%	0.2%
44	13.6%	28.8%	29.0%	0.2%
45	19.9%	43.2%	43.5%	0.4%
46	8.9%	18.3%	18.5%	0.2%
54	12.5%	21.3%	21.4%	0.1%
55	26.4%	59.7%	60.7%	1.0%
56	25.8%	61.3%	62.5%	1.2%
57	25.2%	60.7%	61.7%	1.0%
62	39.2%	89.8%	91.4%	1.6%
63	43.2%	93.7%	95.2%	1.5%
64	45.1%	93.4%	94.8%	1.4%
68	24.7%	59.6%	60.9%	1.3%
69	24.2%	58.6%	59.9%	1.3%
70	26.2%	63.5%	64.8%	1.3%

Summary of the Updated Analysis Results (cont'd)

- In comparison with the forecast cumulative existing condition (Alternative 6), the introduction of the regional jet (Alternative 5) results in the following:
  - No change in Lmax.
  - Change in TAA (minutes) ranging from zero to 5.6 minutes in the western and central portions of the study area, to 11 to 23 minutes in the far eastern and northern portions of GCNP.
  - Maximum change in TAA (percent) of 1.6% in gridpoint 62.
  - Change in Leq12 and Leq24 of 0.1 in four gridpoints in the easternmost portions of GCNP.

Summary of the Updated Analysis Results (cont'd)

- Proposed Action Alternative Versus the No Action Alternative
  - From a cumulative perspective, implementation of the Proposed Action Alternative (introduction of the regional jet) reduces the noise impact on GCNP when compared to implementation of the No Action Alternative (use of turbo-prop aircraft for commercial service to Salt Lake City).

(The table on the following slide depicts the grid point locations that realized an increase in TAA. Grid points which are not depicted did not experience an increase in TAA with implementation of the proposed action or no action alternatives.)

Grid Point ID	2025 Cumulative Change in TAA for No Action Alt. Versus the Forecast Existing Conditions[1]	2025 Cumulative Change in TAA for Proposed Action Alt. Versus the Forecast Existing Conditions[1]	2025 Cumulative Change in TAA for the Proposed Action versus the No Action Alternative[2]
26	0.6%	0.2%	-0.5%
30	0.2%	0.1%	-0.2%
33	0.3%	0.1%	-0.2%
37	0.2%	0.0%	-0.2%
39	0.6%	0.1%	-0.5%
40	0.5%	0.1%	-0.4%
43	0.5%	0.2%	-0.3%
44	0.6%	0.2%	-0.4%
45	1.0%	0.4%	-0.6%
46	0.6%	0.2%	-0.4%
54	0.4%	0.1%	-0.3%
55	2.4%	1.0%	-1.4%
56	2.5%	1.2%	-1.4%
57	2.4%	1.1%	-1.4%
62	2.7%	1.6%	-1.1%
63	2.6%	1.5%	-1.1%
64	2.4%	1.4%	-1.0%
68	2.1%	1.3%	-0.8%
69	2.0%	1.3%	-0.8%
70	2.0%	1.3%	-0.7%

Summary of Cumulative Noise Analysis Results

- The use of regional jet aircraft, which climb faster and cruise at higher altitudes than Beech 1900 turbo-prop aircraft, will result in an overall decrease in noise for both the Flagstaff Area Monuments and the GCNP.
- Without the proposed runway extension, Flagstaff Pulliam Airport will not be able to accommodate regional jet aircraft, thereby forcing commercial service operators to continue the use of turbo-prop aircraft.

Summary of Cumulative Noise Analysis Results (cont'd)

- The Tier One Analysis for the Flagstaff Area Monuments did not find a sound level increase discernable to the human ear within the Walnut Canyon or Sunset Crater National Monuments when the Proposed Action and No Action Alternatives were compared. However, the TAA levels increased slightly with implementation of the Proposed Action Alternative.

Summary of Cumulative Noise Analysis Results (cont'd)

- The Tier Two Analysis for the GCNP showed an overall decrease in Lmax, TAA, Leq12, and Leq24 levels with implementation of the Proposed Action Alternative versus the No Action Alternative.

ATTACHMENT D

Proposed Airport Improvements
Amended Draft Environmental Assessment

PUBLIC HEARING
MEETING ATTENDANCE RECORD

FLAGSTAFF
PULLIAM AIRPORT

Meeting Public Hearing Date: Jan. 19, 2006 Time: 6:00-8:00 p.m.

Place: Airport Terminal Building, Second Floor

Please print neatly

NAME	REPRESENTING	PHONE #/E-MAIL
1. WARREN SMITH	PINE CANYON CLUB	ph.#: 928 814-2889 e-mail: warren@PineCanyonNet
2. JIM MCCARTHY	SIERRA Club	ph.#: 928 779-3748 e-mail: JK436MC@NPGCABLE.com
3. Gloria Slipher	Self	ph.#: 928.774-6125 e-mail:
4. EARL SLIPHER	SELF	ph.#: 928-774-6125 e-mail:
5. John W. Marten	Self	ph.#: 928-527-9188 e-mail:
6. PAUL T. JONES	SELF	ph.#: 928-774-9177 e-mail: PAUL@STAR-INSTRUMENTS
7. PAUL WHITEFIELD	NATIONAL PARK SERVICE	ph.#: 928-526-1157 x 235 e-mail: Paul_Whitefield@nps.gov
8. RANDY ACKLEY	SELF	ph.#: 928-774-3117 e-mail: RTACKLEY@MSN.com
9. Michelle Simmons	FAA	ph.#: 310 725-3619 e-mail: Michelle.Simmons@FAA.gov
10. [illegible]	City	ph.#: — e-mail:
11. Mike Covalt	FLG	ph.#: 928-556-1234 x10 e-mail:
12. BEN FISK	FLG	ph.#: e-mail: —
13. STEVE BENSON	COFFMAN ASSOCIATES	ph.#: e-mail:
14. JIM HARRIS	COFFMAN ASSOCIATES	ph.#: 602 993-6699 e-mail:
15.		ph.#: e-mail:
16.		ph.#: e-mail:
17.		ph.#: e-mail:
18.		ph.#: e-mail:
19.		ph.#: e-mail:
20.		ph.#: e-mail:

FLAGSTAFF PULLIAM AIRPORT
AMENDED DRAFT ENVIRONMENTAL ASSESSMENT

FLAGSTAFF
PULLIAM AIRPORT

PUBLIC HEARING
January 19, 2006

Please fill out this form if you wish to provide oral testimony at this hearing *(please print)*.

Name PAUL T. JONES
Address 3641 E. FOXFIRE DR
FLAGSTAFF, AZ 86004

Representing: *(check all boxes that apply)*

- [x] Airport tenant/user (Name _____)
- [ ] Local Government (Name _____)
- [ ] Local business or business group (Name _____)
- [ ] Federal Agency (Name _____)
- [ ] Citizens or neighborhood group (Name _____)
- [x] Private citizen
- [ ] Other _____

FLAGSTAFF PULLIAM AIRPORT
AMENDED DRAFT ENVIRONMENTAL ASSESSMENT

FLAGSTAFF
PULLIAM AIRPORT

PUBLIC HEARING
January 19, 2006

Please fill out this form if you wish to provide oral testimony at this hearing *(please print)*.

Name JIM MCCARTHY
Address 2087 W. FRESH AIRE ST
Flagstaff 86001

Representing: *(check all boxes that apply)*

- [ ] Airport tenant/user (Name _____)
- [ ] Local Government (Name _____)
- [ ] Local business or business group (Name _____)
- [ ] Federal Agency (Name _____)
- [x] Citizens or neighborhood group (Name Sierra Club, Grand Canyon Chapter)
- [ ] Private citizen
- [ ] Other _____

FLAGSTAFF PULLIAM AIRPORT
AMENDED DRAFT ENVIRONMENTAL ASSESSMENT

FLAGSTAFF
PULLIAM AIRPORT

PUBLIC HEARING
January 19, 2006

Please fill out this form if you wish to provide oral testimony at this hearing *(please print)*.

Name EARL SLIPHER
Address 627 BEAL RD
FLAGSTAFF, AZ 86001

Representing: *(check all boxes that apply)*

- ☐ Airport tenant/user (Name _____)
- ☐ Local Government (Name _____)
- ☐ Local business or business group (Name _____)
- ☐ Federal Agency (Name _____)
- ☐ Citizens or neighborhood group (Name _____)
- ☒ Private citizen
- ☐ Other _____

FLAGSTAFF PULLIAM AIRPORT
AMENDED DRAFT ENVIRONMENTAL ASSESSMENT

FLAGSTAFF
PULLIAM AIRPORT

PUBLIC HEARING
January 19, 2006

Please fill out this form if you wish to provide oral testimony at this hearing *(please print)*.

Name JOHN W MARTIN
Address 2515 HARDI LOOP
FLAGSTAFF AZ 86004

Representing: *(check all boxes that apply)*

- ☐ Airport tenant/user (Name _____)
- ☐ Local Government (Name _____)
- ☐ Local business or business group (Name _____)
- ☐ Federal Agency (Name _____)
- ☐ Citizens or neighborhood group (Name _____)
- ☒ Private citizen
- ☐ Other _____

FLAGSTAFF PULLIAM AIRPORT
AMENDED DRAFT ENVIRONMENTAL ASSESSMENT

FLAGSTAFF
PULLIAM AIRPORT

PUBLIC HEARING
January 19, 2006

Please fill out this form if you wish to provide oral testimony at this hearing *(please print)*.

Name Gloria Slipher
Address 627 Beal Rd.
Flagstaff, AZ 86001

Representing: *(check all boxes that apply)*

- ☐ Airport tenant/user (Name _____)
- ☐ Local Government (Name _____)
- ☐ Local business or business group (Name _____)
- ☐ Federal Agency (Name _____)
- ☐ Citizens or neighborhood group (Name _____)
- ☒ Private citizen
- ☐ Other _____

ATTACHMENT E

PUBLIC HEARING

AMENDED DRAFT ENVIRONMENTAL ASSESSMENT

FOR PROPOSED IMPROVEMENTS AT

PULLIAM AIRPORT RUNWAY

Flagstaff Pulliam Airport

January 19, 2006

6:00 p.m. to 8:00 p.m.

ORIGINAL

PERFORMANCE REPORTERS, INC.
121 East Birch Avenue, Suite 411
Flagstaff, Arizona 86001
By: Laura McDonald

MR. HARRIS: I think we are going to get started. We want to thank you for being here this evening. My name is Jim Harris. I'm with Coffman Associates. I have a brief statement to read into the record regarding the public hearing regarding the improvements for Flagstaff Pulliam Airport.

Welcome to the public hearing and public information workshop on the Amended Draft Environmental Assessment for proposed airport improvements at Flagstaff Pulliam Airport. It is called to order at 6:10 p.m. and will continue until at least 8:00 p.m. this evening.

This hearing is being conducted at the request of the Federal Aviation Administration. This is the second public hearing for this Environmental Assessment. The first was held on the Draft Enviromental Assessment in August of 2005. Due to comments received during the public comment period for the Draft Environmental Assessment, revisions were made to the Supplemental Noise Analysis and the Amende Draft Environmental Assessment was prepared. Due to the changes in the analysis, the Federal Aviation Administration required the City of Flagstaff to print an Amended Draft Environmental Assessment, instead of a Final Environmental Assessment, and have this second public hearing to allow the public the opportunity to comment on the revised analysis

1 results. Therefore, the purpose of this hearing is to
2 present the revised analysis and allow for public
3 comment.
4 The Amended Draft Environmental Assessment was
5 made available for public examination for thirty calendar
6 days prior to this hearing. Persons present at this
7 hearing will be offered an opportunity to present oral
8 and written comments concerning the Amended Draft
9 Environmental Assessment. All comments presented before
10 the court reporter will be recorded and transcribed for
11 the record. This hearing is not intended to be a
12 question and answer period or a debate, but rather an
13 opportunity to have your comments considered by the
14 Federal Aviation Administration prior to their
15 environmental review of this project.
16 If you have not already done so, please sign
17 the attendance sheet located at the registration table.
18 This will help the FAA and the City of Flagstaff know how
19 many and who attended the workshop and hearing.
20 If you wish to speak on the record, you will
21 need to fill out one of the Speaker Registration Forms
22 which are available at the registration desk. Please be
23 sure to write legibly to assist the court reporter in
24 spelling your name and address for the record. Leave the
25 completed form with the person at the registration desk;

1 you will be called in the order that you registered to
2 speak.
3 When you are called, you will need to state
4 your name and address for the record. Please let us know
5 if you are representing a business or organization.
6 Also, please be sure to speak slowly and enunciate
7 throughout your testimony. Please limit your comments to
8 this Environmental Assessment and the improvements under
9 consideration.
10 If you would prefer to submit a written
11 statement, forms are available for your use. They are
12 also at the registration table. After completing your
13 comments, please return them to the person at the
14 registration table. Written comments will be accepted
15 until the close of this hearing at 8:00 p.m. tonight.
16 In order to provide a fair opportunity to give
17 oral comments to everybody desiring to do so, each person
18 will be given three minutes to testify. If you are
19 unable to make all of the comments that you desire to
20 during your oral testimony, or should you later desire to
21 make additional comments, you are encouraged to submit
22 written comments in the manner previously described.
23 On behalf of the project sponsors, I would like
24 to thank you for your interest in the airport project and
25 the public hearing process.

With that, what I would like to do at this time is turn the presentation over to Steve Benson, who is going to walk through a brief PowerPoint presentation of, again, the aspects of the Draft Environmental Assessment as it relates to some of the revised documents.

Steve.

MR. BENSON: Thank you, Jim. For those of you who can't comfortably see the slide show, it's the same thing we will be going through up here, if I can read this.

Just to briefly outline the projects that we were evaluating through the environmental assessment, it included the 1800-foot extension to runway 3-21. The proposed extension results in pavement length of 8,800 feet. However, the landing distance on runway 21 would remain at 6,999 feet. The extension is needed to accommodate existing users of the airport, as well as to support the potential transition of the commercial fleet from turbo-prop aircraft to regional jet aircraft.

The other part of the project is acquisition of land contained within the extended runway's safety area of the runway extension, as well as the runway protection zone, the extended part of the runway extension.

This basically shows you the outline of the project, the extension of the runway shown in yellow, and

1 the property acquisitions and the runway safety areas
2 shown in purple, and the acquisition shown where the
3 dotted lines are out beyond the runway.
4 Now, a little bit of project history, at least
5 with the Environmental Assessment. On July 20th, 2005,
6 the Draft Environmental Assessment was made available for
7 review. Thirty days later on August 18, 2005 we had a
8 public information workshop and public hearing that were
9 held regarding the Draft Assessment finding. On
10 August 26, 2005, the formal public comment period closed
11 on the Draft Environmental Assessment. Then December 20,
12 2005, public notice was printed announcing the date and
13 time of this public hearing, as well as the location that
14 the Amended Draft Environmental Assessment could be
15 reviewed.
16 So the August 2005 public hearing including the
17 public information workshop was held concurrently with
18 the August 2005 public hearing. This workshop allowed
19 the public and agencies to interact one-on-one with the
20 consultants that prepared the studies. Questions were
21 answered during the workshop, and corrected forecast
22 tables were provided at that time based on some comments
23 we had prior to the public hearing.
24 The contents of this Amended Draft
25 Environmental Assessment that has been available for the

1 past 30 days includes or involves the Environmental
2 Assessment which was updated primarily to reflect the
3 passage of the Northern Arizona Land Exchange and Verde
4 River Basin Partnership Act of 2005. Also forecasts
5 presented in Chapter One were revisited to ensure
6 consistency with the airport master plan and the rest of
7 the Environmental Assessment.
8 Comments received on the Draft Environmental
9 Assessment and responses to those comments and materials
10 pertaining to the first public hearing are included in
11 Appendices I and J of the Amended Environmental
12 Assessment.
13 The Integrated Noise Model, or for short INM,
14 input files are also included as appendix K within the
15 Environmental Assessment, the Amended Environmental
16 Assessment. The updated Grand Canyon National Park Noise
17 Analysis is also included as Appendix I in the Amended
18 Draft Environmental Assessment.
19 Now, the purpose of this public hearing, which
20 Jim has already touched on most of it, is as a result of
21 comments received during the Draft EA comment period.
22 The Supplemental Noise Analysis was revisited as it
23 pertained to potential noise impact on the National Park
24 Units up in this area. The purpose of this hearing is to
25 present the results of this analysis and to allow for

1 public and agency comment on the new findings. This
2 presentation focused on the revised Supplemental Noise
3 Analysis included within the Amended Draft Environmental
4 Assessment. Information regarding other sections of the
5 document were addressed during the August 2005 public
6 information workshop and hearing.
7 So the hearing format, as Jim has already
8 talked about, is we will have this presentation, which
9 will be given regarding the changes to the Supplemental
10 Noise Analysis. Following the presentation, hearing
11 attendees will be allowed to comment on the Draft EA, and
12 all comments will be made part of the record.
13 Individuals wishing to comment will be allowed
14 a total of three minutes to state their comments. This
15 hearing is designed to allow for public and agency
16 comment on the revised Supplemental Noise Analysis and
17 will not serve as a forum for debate or a question and
18 answer session.
19 This is a summary of the comments received
20 regarding the previous cumulative impact analysis and the
21 approach taken to address those comments in the Amended
22 Draft Environmental Assessment. In regards to the
23 cumulative noise analysis for the Grand Canyon National
24 Park, the alternative evaluated did not appear to
25 evaluate all the overflights of the park, including air

1 tour and military operations. So the analysis was
2 expanded to include all overflight of the Grand Canyon
3 National Park, including air tour and military activity,
4 even though it is not, of course, directly involved with
5 the Flagstaff airport.
6 A depiction of the flight tracks analyzed for
7 the Grand Canyon National Park was not included. That
8 was another comment. Exhibits were included to depict
9 the flight tracks which were analyzed over the National
10 Park Units.
11 Another comment was that the alternatives
12 presented with the Grand Canyon National Park analysis
13 were not detailed enough to provide the reader the
14 ability to draw the conclusion other than what was
15 presented within the text. So in the Amended Draft
16 Enviromental Assessment we put in that additional
17 alternatives were introduced to the Grand Canyon National
18 Park noise analysis, and a technical report was provided
19 by the Volpe Center Acoustics Facility, which outlined
20 the source of the information used for the Grand Canyon
21 National Park analysis and the methodology used for the
22 analysis, the analysis inputs, and the analysis results.
23 This report is included in Appendix L of the Amended
24 Draft Environmental Assessment.
25 The Time Above, or for short TA, noise metric

1 did not appear to be presented correctly. That was
2 reviewed and the TAA metric was further designed within
3 the noise analysis.
4 Other resulting changes in the tier-one
5 analysis included exhibits and text that were refined
6 based on comments received from the National Park
7 Service.
8 Other resulting changes in tier-two analysis or
9 resulting changes in the tier-two analysis included
10 additional alternatives were introduced to evaluate the
11 potential incremental and cumulative noise impact of
12 commercial operation from Flagstaff Pulliam Airport to
13 Salt Lake City, and inconsistencies regarding the TAA
14 noise metric were also corrected.
15 These were the alternatives that were evaluated
16 within the tier-two analysis. Alternative One was
17 essentially the existing condition. Alternative Two was
18 a long-range, no action alternative, which assumes the
19 introduction of Beech 1900 aircraft to and from Salt Lake
20 City. Alternative Three was a long-range proposed action
21 alternative, which assumes the introduction Beech 1900
22 aircraft to and from Salt Lake City.
23 Alternative Four was a cumulative, long-range
24 no action alternative that analyzes the introduction of
25 Beech 1900 aircraft to and from Salt Lake City, as well

1 as other activity over the Grand Canyon National Park.
2 Alternative Five was a cumulative, long-range proposed
3 action alternative that analyzes the introduction of
4 regional jet aircraft to and from Salt Lake City, as well
5 as all other activity over Grand Canyon National Park.
6 Finally, Alternative Six was a cumulative forecast of
7 existing conditions, which analyzed the noise condition
8 should commercial service to Salt Lake City not be
9 introduced at Flagstaff.
10 This exhibit, which is included in the Amended
11 Draft Environmental Assessment, shows grid points that
12 were analyzed within this tier-two analysis basically all
13 over and around Grand Canyon National Park.
14 This summarizes the updated analysis results.
15 The assumption of a 4.1 percent compound annual growth
16 rate of aircraft operations over Grand Canyon National
17 Park over 21 years in the future results in no noticeable
18 Time Above Analysis increases, comparing Alternative One
19 to Alternative Six. However, future commercial service
20 operations from Flagstaff to Salt Lake Cit by regional
21 jets represent a negligible portion of this increase
22 between Alternative Five versus Alternative Six.
23 This shows you those results which are included
24 in the Amended Draft Environmental Assessment, and you
25 have those right there. You can see basically looking at

1 it, particularly over in the column to the right that
2 compares Alternative Five to Alternative Six, in any grid
3 point we have as little as .1 percent difference, with
4 the maximum being 1.6 percent difference in noise. So
5 very negligible levels of noise change.
6 In comparison with the forecast cumulative
7 existing condition, or Alternative Six, the introduction
8 of regional jet aircraft, which is Alternative Five,
9 results in the following. There is no change in the Lmax
10 condition. There is a change in the Time Above Analysis,
11 basically in minutes ranging from zero to 5.6 minutes in
12 the western and central portions of the study area to 11
13 to 23 minutes in the far eastern and northern portions of
14 the Grand Canyon National Park. The maximum change in
15 the Time Above Analysis in percentages was 1.6 percent as
16 indicated at grid point 62 and the change in the L
17 equivalent 12 and Leq24 of 0.1, or grid points in the
18 eastern most portion of Grand Canyon National Park.
19 In the proposed action versus the no action
20 alternative, from a cumulative perspective, the
21 implementation of the Proposed Action Alternative,
22 basically you are just introducing the regional jet which
23 reduces the noise impact on Grand Canyon National Park
24 when compared to the implementation of a no action
25 alternative with the use of turbo-prop for commercial

1 service to Salt Lake City.
2 Basically that's what this is showing on
3 various grids. Again, the column at the far side shows
4 you the differences, and as a result, we see the negative
5 numbers there. So we're actually seeing a reduction. We
6 have the regional aircraft versus turbo-prop aircraft.
7 So the summary of cumulative noise analysis
8 results. The use of regional jet aircraft, which climbs
9 faster and cruise at higher altitudes than Beech 1900
10 turbo-prop aircraft resulted in an overall decrease in
11 noise for both Flagstaff area monuments and the Grand
12 Canyon National Park. Without the proposed runway
13 extension, Flagstaff Pulliam Airport will not be able to
14 accommodate regional jet aircraft, thereby forcing
15 commercial service operators to continue the use of
16 turbo-prop aircraft.
17 The tier-one analysis for Flagstaff Area
18 Monuments did not find a sound level increase discernible
19 to the human ear within the Walnut Canyon or the Sunset
20 Crater National Monuments where the proposed action and
21 no action alternatives were compared. However, the Time
22 Above Analysis levels increased slightly with
23 implementation of the proposed action alternative.
24 The tier-two analysis for the Grand Canyon
25 National Park showed an overall decrease in the L max,

1 the TAA, the Leq12 and the Leq24 levels with
2 implementation of the proposed action alternative versus
3 the no action alternative.
4 Basically that summarizes the changes that are
5 in the Amended Draft Environmental Assessment.
6 MR. HARRIS: As I said at the beginning,
7 what we would like to do now is those of you that wish to
8 speak on the record so that comments and questions that
9 were raised during the testimony can be given to the FAA
10 for their review and consideration, we would like to do
11 so at this time. Again, I would mention, those of you
12 that have not signed in, we would like for you to do so.
13 There are speaker forms and written comment forms there
14 as well. At this time I would ask is there anyone in the
15 audience that would like to speak on the record? Do you
16 have a speaker form?
17 UNIDENTIFIED SPEAKER: I didn't fill one
18 out. Would you like me to do that?
19 MR. HARRIS: Yeah, if you don't mind. If
20 you just want to state your name, address, and who you
21 represent for the record so the court reporter can get
22 that. I would like to mention that we do have comment
23 forms. If you don't want to speak, you are more than
24 welcome to do so.
25 The first speaker is Jim McCarthy.

1 MR. McCARTHY: My name is Jim McCarthy,
2 M-c-C-a-r-t-h-y. I live at 2087 West Fresh Aire, two
3 words, A-i-r-e, Street, Flagstaff. I'm the Vice Chairman
4 of the Sierra Club, Grand Canyon Chapter, which covers
5 the State of Arizona. Is that it?
6 My understanding is that the new document is (1)
7 substantially better. It did address, as he said in the (2)
8 presentation, many of the questions that we had and --
9 but the analysis also shows, and I'm not sure how this
10 ties into the presentation, but my understanding is that
11 it shows that if we get regional jets going between
12 Flagstaff and Salt Lake City that the noise over the
13 Grand Canyon will increase approximately half an hour per
14 day. So if that happens, there will be more -- it is my
15 understanding that there will be more noise over the
16 Grand Canyon.
17 As we said in our comments before, our primary (3)
18 concern, not our only concern but our primary concern is
19 the Grand Canyon, and the law saying that we have to
20 substantially restore the national quiet at the Grand
21 Canyon is going to be made more difficult if we have
22 regional jets going between those two cities.
23 What we would like to see, and I don't know if
24 this is realistic, but what we would like to see is an (4)
25 agreement that the airplanes that fly that route take a

route east of the Grand Canyon, and therefore, there would not be impasse to the Grand Canyon. So that is really our key request that we would really like to see.

In the document it alluded to the things like the Grand Canyon Working Group, which incidentally I sit on, and just because the Grand Canyon Working Group is talking about those things doesn't mean that they're going to happen. What we would really like to do is see the city and the FAA come to an agreement that we route aircraft around the east end of the Grand Canyon.

That's pretty much the focus of my comments. I do have a letter that I guess -- can I hand it to you now?

MR. HARRIS: Certainly.

MR. McCARTHY: I brought a couple of extra copies if anybody wants them. I guess that's the end of my statement.

MR. HARRIS: Thank you. We appreciate it.

The next request, Mr. Paul Jones. Again, if you could state your name, address, and who you represent.

MR. JONES: My name is Paul Jones, and I live at 3641 East Fox Lair Drive, Flagstaff.

I have a bunch of things on here that I have to cover. I'm concerned about the future of the Flagstaff

5

1 Airport and the effects that the runway extension would
2 have to the airport. I personally would like to request (6)
3 the FAA to do a CIS to determine the real noise impact
4 around the north runway 21. The biggest problem I had (7)
5 was with the military aircraft that they included in the
6 noise study. They are not aircraft that seem to be
7 flying into Flagstaff. The two aircraft that they showed
8 are low-noise type aircraft, as opposed to the big
9 helicopters that we get in here quite often, as well as
10 we have C-130s in here all the time doing approaches and
11 stuff. It makes no mention of that.
12 Another factor of the military is that if we (8)
13 extend the runway, right now because our runway isn't
14 7,000 feet long, there are a number of jet aircraft that
15 can't -- that are restricted from landing at Flagstaff
16 because they are a requirement of having at least
17 7,000 feet. I suspect if we extend the runway that the
18 amount of military traffic would increase noticeably.
19 I'm not sure how much, but I know that would have a
20 significant impact on the EA or the noise study that was
21 done. We need to look into that to see what the impact
22 would be from that because the military jets, they don't
23 have noise pressure on them. They are extremely loud.
24 So that's one item that I would like to see taken care
25 of.

I don't feel the questions that I had in here that you tried to answer were actually answered. I still have the same problem with the numbers. The information detailed in the EA is filled with inaccuracies, and forecasts contained within are not optimistically influenced by a minimum factor of 22 percent. Now, your explanation to me is that you're anticipating the capture, recapturing lost customers with the introduction of regional jets.

The State did a study for the Flagstaff Airport that stated in that they were looking at how to increase traffic or planes to the various airports, Flagstaff specifically, and they did comment that when Flagstaff went from Beech 1900's to Dash 8's that they actually had a loss in business, and it was caused because people were used to six, eight flights a day and it dropped down to five flights a day, which caused more inconvenience. People had to stay longer down in Sky Harbor waiting for their flight or here in Flagstaff. Because of that, people found it easier to drive down than to fly down.

I expect the same thing would happen if you go to regional jets. We'd be down to three jets a day. If we lost business off that, if people didn't fly that, Mesa would drop down to two jets, and I don't think they will bring two jets a day to Flagstaff, which means they

will cancel our air service. The FAA does not have any subsidy for the Flagstaff Airport to encourage airlines to come here, so because of that, there is a real possibility that we would lose all of our air service.

I guess because of these problems, I would recommend that we don't do the runway extension. It is not necessary. The airlines haven't said they were going to use regional jets, and the manufacturer of the regional jets and the Dash 8 say that turbo-prop sales are up and regional jet sales are down because the props are more efficient by a factor of about 30 percent. Because of the high cost of fuel, which has doubled from last year, this is becoming a significant problem for the airlines. Those are the main items we would like to cover.

MR. HARRIS: Thank you, Mr. Jones. Are there other request to speak forms?

MR. MARTIN: John W. Martin, 2515 Heidi Loop, Flagstaff, 86004. I am a retired professor at the university in engineering, and I just come as a private citizen who has been involved in one way or another in aviation since 1946.

My feeling is that this runway extension is necessary for Flagstaff as a community to expand, to grow, to economically go ahead. If we are stuck with a

1 6,999-foot runway, turbo-props aren't going to be
2 forever. We are going to have to get RJ's in here in
3 order to accommodate the traffic we are going to need in
4 the future or going to have in the future, and so for
5 that basic reason, I'm definitely in favor of the
6 extension.
7 I'm also an active member of the Grand Canyon (16)
8 Trust, but as far as the environmental stuff is
9 concerned, I'm not worried about the RJ's. I'm not
10 really worried about the military either because we are
11 not going to have that many, I don't feel, in this area.
12 I grew up a half a mail from a military training field,
13 and it didn't bother me. I'll just say that. Certainly
14 people complain about train noise here. Jet noise is a
15 lot less than the trains. So I'm all for it. I'll say
16 that.
17 MR. HARRIS: Thank you, Mr. Martin. Are
18 there others?
19 Mr. Earl Slipher.
20 MR. SLIPHER: My name is Earl Slipher, and
21 I'm speaking as a private citizen. It appears to me that (17)
22 for aircraft in Flagstaff to progress, the runway's
23 extension is necessary to allow jet aircraft to use the
24 Flagstaff Airport. Hopefully that will reduce the cost
25 for the citizens of Flagstaff because they are much more

efficient than the turbo-prop aircraft. That is one of the main reasons for being here, to voice my support for the runway extension.

MR. HARRIS: Mr. Slipher, did you state your address for the record?

MR. SLIPHER: 627 Beal Road, Flagstaff, Arizona, 86001.

MR. HARRIS: Thank you.

Gloria Slipher.

MRS. SLIPHER: My name is Gloria Slipher. I think he spelled it, and I live at 627 Beal Road, Flagstaff, 86001. I guess I'm here as a private citizen. I'm also here as a mom of a pilot, and I was concerned as I watched my son come in on Christmas Eve and land nicely, but I watched some other small planes come in, and I have seen that possibly they could have used a lot longer runway. So I am here really for safety, but I am also here hoping that with the runway extension I think it will give better service to the people of Flagstaff. So that's my concern. Thank you.

(18)

MR. HARRIS: Thank you very much. Other individuals who would like to speak? I think at this time because we are holding this open for a little bit longer, maybe we could take a short recess and see if anyone else shows up that might like to speak, and then

they may do so. You are welcome to stay. If you would like to leave, that's fine as well, but we will remain open. Again, if you would like to take the time to submit comments, we will also be receiving the comments in writing. We will take a short recess.

(A recess was observed)

It's presently five until 8:00 and we will reconvene the public hearing to see if there are any additional speakers who wish to give testimony for the public hearing, and we will leave the public hearing open until 8:00, at which time we will adjourn.

It is now 8:00 p.m. There is no more comment from the public, so at this point we will adjourn this hearing. I would like to thank you all for attending.

CERTIFICATE

I, LAURA McDONALD, do hereby certify that I am a Court Reporter. I further certify that prior to the commencement of the examination, the witness was duly sworn by me to testify to the truth.

I further certify that this deposition was taken in shorthand by me and was thereafter reduced to typewritten form and that the foregoing 22 pages constitutes a true and correct transcript, all to the best of my ability and in accordance with the guidelines promulgated by the Arizona Supreme Court.

I further certify that a transcript review was not requested in accordance with RCP Rule 30(e).

I further certify that I am not related to, employed by, nor of counsel for any of the parties or attorneys herein, nor otherwise interested in the result of the within action.

DATED at Flagstaff, Arizona, this 6th day of February, 2006.

LAURA McDONALD
ORIGINAL SIGNATURE IN BLUE INK

Proposed Airport Improvements
Amended Draft Environmental Assessment

PUBLIC HEARING MEETING COMMENT FORM

FLAGSTAFF
PULLIAM AIRPORT

Name: Jim McCarthy

Date: Jan. 19, 2006 Time: 6:00-8:00 p.m.

Place: Airport Terminal Building, Second Floor

Please print neatly

Please see attached letter.

Jim McCarthy

CHEVALIER, ALLEN & LICHMAN LLP
Attorneys at Law
Commercial Litigation • Aviation Law & Litigation • Environmental Law & Litigation

Gary M. Allen, Ph.D.
John Chevalier, Jr.*
Berne C. Hart
Barbara E. Lichman, Ph.D.
Jacqueline E. Serrao, LL.M.
Frederick C. Woodruff -

*Retired
-Admitted in New York
°Of Counsel

695 Town Center Drive, Suite 70
Costa Mesa, California 92626
Telephone (714) 384-6520
Facsimile (714) 384-6521
E-mail cal@calairlaw.com

January 18, 2006

By Facsimile and Federal Express
(928)556-1288

Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 South Pulliam Drive, Suite 204
Flagstaff, Arizona 86001

Re: Comments - Amended Draft Environmental Assessment for Proposed Airport Improvements at Flagstaff Pulliam Airport

Dear Mr. Covalt:

We represent Lone Tree Investments, LLC ("Lone Tree"). Lone Tree submitted comments on the original Environmental Assessment ("EA") which are set forth at pages I-80 to I-87 in the "Amended Draft Environmental Assessment for Proposed Airport Improvements at Flagstaff Pulliam Airport" ("Amended EA"). Lone Tree takes this opportunity to submit additional comments on the analysis contained in the Amended EA which purports to augment the EA and completely set forth the environmental impacts of the proposed 1,800 foot extension of Runway 3-21 and Taxiway A ("Project").

Lone Tree disagrees that the Amended EA successfully supplements the EA, and takes the position that the Amended EA is inadequate in, among others,[1] the following respects: 19

(1) The public was not provided with notice of the Amended EA's comment period or access to the Amended EA sufficient to fulfill the fundamental informational purpose of the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321, *et seq.*; 19a

(2) The Amended EA artificially inflates the "No Action" baseline so as to diminish the Project's apparent environmental impacts; 19b

[1] Lone Tree hereby incorporates by reference its previous comments and the comments of all other persons and entities participating in the original EA process.

(3) The data in the Amended EA is inadequate to support its conclusions concerning projected passenger growth resulting from introduction of regional jets; comparative operational performance of RJs and large commercial aircraft such as the 737-300; noise impacts on approach from the northeast to Runway 21; and the relationship of the represented flight tracks to the Project's purported noise contours; 19c

(4) The Amended EA lacks even the most cursory analysis of the Project's water quality impacts; and 19d

(5) The Amended EA gives short shrift to the Project's demonstrable cumulative impacts. 19e

On all these parameters, the Project has the potential to "significantly affect the quality of the human environment", 42 U.S.C. § 4332(C), and, thus, an Environmental Impact Statement ("EIS") should be prepared.

I. ABSENCE OF ADEQUATE NOTICE AND OPPORTUNITY TO COMMENT ON THE AMENDED EA CONTRAVENES NEPA'S FUNDAMENTAL INFORMATIONAL PURPOSE.

NEPA's most basic purpose is to "ensure that federal agencies are informed of environmental consequences before making decisions *and* that the information is available to the public." *Citizens for Better Forestry v. U.S. Department of Agriculture*, 341 F.3d 961, 970-971 (9th Cir. 2003) (emphasis added). Under NEPA, agencies must comply with NEPA's procedural requirements, ensuring both that the agency "carefully consider" a project's environment impacts, and that the "relevant information will be made available," so that the public can "play a role in both the decision-making process and the implementation of that decision." *Native Ecosystems Council v. United States Forest Serv.*, 418 F.3d 953, 958 (9th Cir. 2005), *quoting*, *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

To ensure that the public is included in the decision-making process, agencies are required to, "[p]rovide public notice of NEPA-related hearings, public meetings, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected." 40 C.F.R. § 1506.6. The "[r]epeated failure to reach the interested or affected public would be interpreted as a violation" of NEPA's implementing regulations. *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*, 46 Fed. Reg. 18026 (1981) ("Forty Most Asked Questions").

Here, neither Lone Tree, as an interested and affected party, nor its counsel, received notice of the availability of the Amended EA. No Notice of Availability for the Amended EA was published in the Federal Register. Further, the Amended EA is available for public viewing in several locations in Flagstaff only, unlike the Draft EA which was also available on the internet and at the FAA's Western Pacific Region office in Lawndale, California. As a result, the public has not had the benefit of the entire comment period in which to review, analyze and prepare comments on the Amended EA. Furthermore, the Amended EA was published during the heart of the holiday season, on December 19, 2005, when much of the public was either traveling or distracted by holiday festivities. Accordingly, the public has been afforded only an attenuated opportunity to participate in the decision-making process here, and one of NEPA's fundamental purposes has been abrogated. 20 21

II. THE EA'S "NO ACTION" BASELINE IS ARTIFICIALLY ELEVATED, THUS DIMINISHING THE PROJECT'S APPARENT ENVIRONMENTAL IMPACTS.

Lone Tree does not dispute that where "a choice of 'no action' by the agency would result in predictable actions by others, this consequence of the 'no action' alternative should be included in the analysis." *Forty Most Asked Questions*. Lone Tree, however, disputes the EA's use of flawed data in its "No Action" alternative, as well as the inclusion in the baseline for the proposed Project actions by others that are not merely "predictable", but are entirely contingent upon implementation of the Project.

First, the "No Action" alternative for 2006 anticipates 4,775 "airline" operations at Flagstaff Airport, while the "No Action" alternative for 2011 anticipates 6,018 "airline" operations, an increase of 1,243 airline operations. Amended EA, Table 4A. The numbers in Table 4A, "Operations Summary and Fleet Mix Data", are suspect, however. They differ materially from those set forth in Table 1C, "Summary of Aviation Forecasts". For example, Table 4A indicates 3,324 "2003 Existing" airline operations. Table 1C indicates 3,118 "2003 Actual Airline" operations, a difference of 206 operations for the same year, even where the data were not projections, but derived from existing operations. 22

The discrepancies in projected data for 2010 (Table 1C) and the 2011 "No Action" alternative (Table 4A) are even more notable, because purportedly "based on the existing activity at the airport, forecasts were prepared", EA, p. 1-11, which "provide the basis for the environmental consequences analysis in Chapter 4", *Id.* Projected airline operations for 2010 in Table 1C are 5,600. Projected airline operations for the 2011 "No Action" alternative in Table 23

4A are 6,018, an unexplained difference of 418 operations.[2] The import of these discrepancies is magnified by the role this data plays in the environmental analysis. By elevating the purported level of operations in the 2006 and 2011 "No Action" alternatives which NEPA mandates be used as benchmarks against which to measure the impacts of the Project, the impacts of the proposed Project are understated. 24

Second, even assuming the integrity of the data, the explanation for the increase in operations between the EA's 2006 and 2011 "No Action" alternatives, especially in light of the admitted 22% decrease in actual operations for 2005 from those projected, Response to Comment 142, appears to be an eight year old study by the Boyd Group/ASRC, Inc. which concluded that Flagstaff could potentially recapture 50% of the 132,500 annual enplanements that leak to Phoenix Sky Harbor Airport, EA, p. 1-8. 25

The fundamental flaw in the EA baseline analysis predicated on the "recapture" scenario is that the scenario is "likely to occur only with the improved service provided by regional jets." Response to Comment 141. As improved service by regional jets will only occur, according the EA, as a result of Project implementation [*see, e.g.*, EA § 1.3.1], the "No Action" alternative against which the Project's impacts are assessed, assumes, and is apparently based upon, the "action" of Project implementation. 26

The only alternative explanation for the operational increase between the 2006 and 2011 "No Action" alternatives, independent of the Project, is the "worst case 'No Action' scenario" set forth in Response to Comment 85. ["[I]t was assumed that an alternative commercial air service provider would begin service from Flagstaff."] This assumption was apparently based on

> "historical service to Salt Lake City and the ability of select turbo prop [here Beech 1900s] to reach that destination, it was determined that ignoring the potential of additional service markets would be naive and would misrepresent potential impacts which could result from not developing the proposed airport improvements. A 'worst case' scenario was developed to allow for proper evaluation of the environmental impacts with and without the proposed airport improvements." Response to Comment 18.

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[2] The differences in the projected "other air taxi" category are even more massive. Table 1C forecasts 6,600 air taxi operations in 2010 while Table 4A forecasts 8,088 air taxi operations in the 2011 "No Action" alternative, an unexplained increase of almost 1,500 operations in one year.

The assumption is unsupported by either the data or analysis in the EA.

> "The current service by America West Express (Mesa Airlines) uses DASH-8 turboprop aircraft. The airline has been growing its fleet with regional jets such as the Canadair Regional Jet 200 (CRJ-200) while reducing its fleet of turboprops. As indicated in Chapter One, the current runway length of 6,999 feet is not sufficient to support scheduled service by regional jet aircraft. Thus, the airport's ability to maintain and improve upon its current level of [service] (sic) could be jeopardized within the few years. . . [Mesa Airlines] is expected to continue to utilize regional jets wherever possible. If the current airline were to be replaced, it is expected that service would be by commuter airline using 19-seat turboprop aircraft. This would be a significant downgrade in service." EA, p. 2-4.

In other words, the "No Action" alternative, the airport without the extended runway, and, thus, without 50-seat regional jets, would also potentially lose service by Mesa's DASH-8 aircraft which has 37 seats. That aircraft would be replaced by the 19 seat Beech aircraft, which the EA admits would be a "significant downgrade in service". There is therefore no data or analysis in the EA to support the independent increase in enplanements and consequent operations projected for the 2011 "No Action" alternative. 27

In the final analysis, these unsupported scenarios and assumptions of growth in operation are the polar opposites of a "worst case" scenario, allowing the baseline for comparison with the Project's environmental impacts to be artificially elevated, and thereby masking the true comparative Project effects. Flagstaff needs to go back to the drawing board for an EIS that sets forth and adequately supports: (1) consistent operational projections; (2) a supportable "No Action" alternative to serve as a baseline for analysis; and (3) a consistent comparison that results in revelation of the Project's true impacts. 28

III. THE AMENDED EA CONTAINS NO DATA ADEQUATE TO SUPPORT CONCLUSIONS CONCERNING THE NEED FOR REGIONAL JETS, THE UTILITY OF THE PROJECT TO SUPPORT THEM, AND THE NOISE RESULTING FROM THEM.

29

While the data used to justify the Amended EA's conclusions concerning the "No Action" alternatives are, in some cases, questionable, both on their face and as applied, the data used to justify the need for regional jets is equally questionable and, in some cases, nonexistent.

First, in response to questions about the analytic bases for the assumption that the introduction of regional jets will increase ridership, the Amended EA states:

> "As has been proven in many other locations with market characteristics similar to Flagstaff such as Redmond, Oregon or San Luis Obispo, California, the improvement of service with regional jets has brought an increase in passengers. This occurs due to a recapture of air travelers that have been using other, more distant airports." Response to Comment 82.

The response is unaccompanied by data enumerating relevant locations, the incidence of "recapture", or the corresponding increases in ridership realized.

Similarly, in response to a comment inquiring into the different operating characteristics of the regional jets and 737-300 commercial aircraft, and the reason that the existing runway is adequate for a 128/149 seat 737-300 currently operating at Flagstaff, and not for a 50 seat regional jet, the Amended EA responds curtly "just because an airplane is larger, does not mean that it requires a longer runway length." Response to Comment 81. The Amended EA fails to provide any data comparing the operational performance of regional jets and the 737-300.

30

In addition, the Amended EA fails to satisfactorily respond to two issues raised in prior comments regarding the configuration of the noise contours depicted in the Amended EA at Exhibits 4B and 4C. The first issue is the relationship of the purported approach and departure flight tracks set forth in Amended EA, Exhibit 4A, and the noise contours depicted in Exhibits 4B and 4C. Exhibit 4A shows a number of diffuse flight tracks that do not correspond to, and in fact, deviate in material ways from, actual fight tracks at Flagstaff Airport.

The Amended EA excuses this deviation by stating "due to lack of radar facilities and mountainous terrain, actual real-time flight tracks are not available. . ." Response to Comment

93. Instead, some sort of "consolidated flight tracks" representing "average flight routes", Amended EA, p. 4-8, were used. No data underlying the purported "consolidated flight tracks" is provided, nor is there any clue to the methodology used in computing the "averages". The implications of these nonspecific flight tracks are inextricably linked to the size and location of the Airport's noise contours. Without specific flight tracks, it is difficult to determine where the noise contours will lie, and how far they will extend.

Second, the 2011 65 DNL noise contours depicted in Amended EA, Exhibit 4D are largely unchanged from the 2006 65 DNL contours, despite the proposed addition to the 2011 fleet mix of thousands of business jets. The Amended EA responds that the noisier, Stage 2 business jets will gradually fade out of the national fleet over time because of age, thereby compensating for the addition of jet operations by quieter business jets. Response to Comment 93. 31

The fleet mix depicted in Table 4A, however, does not appear to include the older aircraft such as the Gulfstream IIB, or even the Gulfstream IV used as an example in Response to Comment 99. In short, the Amended EA includes insufficient data to support the "substitution theory", and, consequently, insufficient support for the configuration of the 2011 noise contours.

Finally, the Amended EA declines to provide evidence to substantiate its claim that the displaced approach threshold on Runway 21 will maintain the approach length at 6,999 feet in perpetuity [Sec. 2.1.1, p. 2-3], rather than allow use of the 1,800 additional available feet of runway, which would allow early touchdown, with attendant lower altitude on approach and increased noise impacts to the northeast of the airport. The Master Plan, however, acknowledges that "there is also a possibility that a GPS approach could be constructed so that the landing threshold might eventually be moved to the end of the extended runway." Master Plan, Chapter 4, p. 4-10. The Amended EA responds merely that pilots can't violate the displaced threshold [Response to Comment 83], and, if additional runway length were needed, a new ALP and additional environmental review would be required. Response to Comment 92. 32

Whether or not a new EA is ultimately performed upon removal of the displaced threshold is beside the point. *See Thomas v. Peterson*, 753 F.2d 754, 760 (9th Cir. 1985) ("Where agency actions are sufficiently related so as to be 'connected' within the meaning of the CEQ Regulations, the agency may not escape compliance with the regulations by proceeding with one action while characterizing the other as remote or speculative."). The displaced threshold is "part and parcel" of the runway project, *i.e.*, a "connected action", one which "cannot or will not proceed unless other actions [here the runway extension] are taken previously or simultaneously." 40 C.F.R. § 1508.25(a)(1)(ii). The potential impacts of removal of the

displaced threshold must, therefore, be addressed "at the earliest possible time" in the planning process. *Thomas, supra*, 753 F.2d at 760.

IV. THE AMENDED DRAFT ENVIRONMENTAL ASSESSMENT FAILS TO ADEQUATELY RESPOND TO LONE TREE'S AUGUST 24, 2005 COMMENTS CONCERNING THE PROJECT'S WATER QUALITY IMPACTS, AND CONCLUDES, WITHOUT PROPER ANALYSIS, THAT THE RUNWAY AND TAXIWAY EXTENSION PROJECT WILL HAVE LESS-THAN-SIGNIFICANT IMPACTS ON WATER QUALITY.

The Amended EA fails to adequately respond to Lone Tree's August 24, 2005 comment that CEQ Regulations 40 C.F.R. § 1508.27 and FAA Advisory Circular 1050.1E, § 501.b(10) require that the Clean Water Act Sections 401 and 404 processes be completed for the proposed Project, and that an Environmental Impact Statement ("EIS") be prepared.[3] Despite acknowledging that construction and implementation of the Project will require obtaining and modifying various *Clean Water Act* permits because of the Project's impacts on water quality, the Amended EA nevertheless prematurely, and without proper analysis, concludes that the proposed Project will have less-than-significant impacts on water quality. The Amended EA also acknowledges that construction and implementation of the Project will cause direct and indirect impacts on wetlands [Sec. 4.8.3.1], but fails to identify, and quantify, any wetlands located within the boundary area surveyed for jurisdictional waters of the United States [shown in Exhibit 3E]. Finally, without more information and further analyses, it is questionable, at best, as to whether the Project will qualify for a Section 404 Nationwide Permit, as the Amended EA anticipates.

A. The Amended EA Fails to Adequately Analyze the Acknowledged Project Impacts on Water Quality.

CEQ Regulations 40 C.F.R. Sec.1508.27 and FAA Advisory Circular 1050.1E, Sec. 501.b(10) define a significant impact, requiring preparation of an EIS, to include where "the action threatens a violation of Federal, State or Local law or requirement imposed for the protection of the environment." Despite acknowledging known and suspected water quality 33

[3] The Amended EA Response to Comment 103 [Water Quality] states "See responses to comments 79, 100, 101 and 102." [p. J-29] However, the response to Comment 79 is a general response, Comment 100 and the response thereto address noise, not water quality impacts, and, as pointed out in these comments, the Responses to Comments 101 and 102 are not responsive to Comments 101, 102 or 103.

impacts, the Amended EA concludes that there will be no significant water quality impacts. Instead, the Amended EA resorts to a circular argument that: (1) it is not possible to determine direct or indirect impacts to wetlands or waters of the United States prior to Project design [Response to Comment 102, p. J-28]; (2) efforts will be made to minimize those undefined direct and indirect impacts during final design [Sec. 4.8.3.1]; (3) coordination with the U. S, Army Corps of Engineers will be required during design to determine the level of Section 404 permitting required [Sec. 4.8..1]; and (4) impacts on water quality will be mitigated through the various permitting processes [p. 4-42, 43]

On July 22, 2003, the U.S. Army Corps of Engineers ("Corps") advised Flagstaff that the Runway 3-31 extension project "may" require a Section 404 permit, and provided a 404 permit application. [p. B-8]. On September 23, 2004 the Corps provided a Section 404 jurisdictional determination, and advised that "[a]ny discharge of dredged or fill material within the designated jurisdictional area requires a Section 404 permit from the Corps of Engineers." The Corps further advised Flagstaff to either: (1) avoid the jurisdictional area in designing the Project; (2) appeal the jurisdictional determination; or (3) submit a Section 404 permit application. [p. G-2]. There is no evidence that Flagstaff appealed the determination and, in fact, the Amended EA relies on the Corps' determination. The Amended EA states that "no practicable alternative exists to avoid impacting this jurisdictional area" [Sec. 4.8.3.1] and concedes that implementation of the proposed Project will require a number of permits, including: (1) a Section 404 permit from the Army Corps of Engineers [Sec. 4.7.3.1, Sec 4.7.4]; (2) a Water Quality Certificate [Sec. 4.7.4]; (3) a construction related AZPDES permit [Sec. 4.7.3.1, Sec. 4.7.4]; and (4) modification of the City of Flagstaff's existing AZPDES General Permit [Sec. 4.7.3.1, Sec. 4.7.4].[4] The Amended EA also concedes that construction of the Project "may" affect surface water quality, because of increased suspended sediments during construction [Sec. 4.7.3.1], and that implementation of the Project will result in an increase in surface water runoff at the airport. [Sec. 4.7.3.1] Nevertheless, the Amended EA concludes that "implementation of the proposed action alternative is anticipated to result in less-than-significant impacts to water quality." [Sec. 4.7.4]

34

[4] There is no evidence that Flagstaff has applied for any of the required permits, therefore it cannot be determined if there will be any "difficulties in obtaining needed permits for the project [which] typically indicate a potential for significant water quality impacts." [Sec. 4.7.]

B. The Amended EA Fails to Identify and Analyze the Impacts on Any Wetlands Within the Project Area.

The Amended EA identifies one stream, the Rio de Flag, as the only water resource that will be impacted by the Project, and concludes that the Project will have less-than-significant impacts on waters of the United States. The Rio de Flag is a first order tributary which the U.S. Army Corps of Engineers considers "waters of the United States." [Sec. 4.7.3.1]. It drains into the San Francisco Wash and ultimately into the Little Colorado River [Sec. 4.7.2]. The Rio de Flag is a stream, not a wetland.[5] Section 4.8.3.1 states that "[d]irect wetlands impacts would result from the actual modification of the jurisdictional area. Indirect impacts would result from construction impacts." However, the Amended EA does not identify the size or location of any wetlands within the Project area.

In a U.S. Army Corps of Engineers Los Angeles District 1997 General Investigations study, the City of Flagstaff identified the Rio de Flag as one of the primary drainages contributing to flooding of major damage centers. The Corps found that there was a Federal interest in proceeding to a second phase of that study to investigate opportunities for providing flood protection in Flagstaff. Despite the acknowledged impacts on streams and wetlands, the need to obtain *Clean Water Act* permits, and the flooding problems known to Flagstaff and the Army Corps of Engineers, the amended EA concludes that the channelization and relocation of the Rio de Flag, "is anticipated to result in less-than-significant impacts on wetlands or waters of the U.S." [Sec. 4.8.4] and "less-than-significant impacts to water quality." [Sec. 4.7.4]

C. The Conclusion That the Project Will Qualify for a Section 404 Nationwide Permit Program Is Not Supported in the EA and Is Questionable.

In response to Comment 102, Flagstaff stated that, for purposes of the EA, a worst case scenario was presented which would result in up to 2700 feet of wetlands impacts, and that it is anticipated that the Project will qualify for a Nationwide Permit ("NWP") from the Army Corps of Engineers [p. J-29] Section 4.8.3.1 also states that the Project will qualify for a NWP 14 [Linear Transportation Project] permit if specific conditions are met.

First, the 2700 feet refers to that portion of the Rio de Flag, a stream, not a wetland, that will be channelized and relocated. [Sec. 4.7.3.1] If, in fact, the stream is only six feet wide, as the EA states [Sec. 4.8.3.1] the channelization and relocation would impact at least 16,200 square

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[5] The Amended EA incorrectly classifies the Rio de Flag as a wetland throughout the Water Quality Section.

feet, or 0.37 acre [not 0.30 acre] of a stream, not wetlands. Because the EA does not identify any wetlands within the surveyed area, it is impossible to tell if there will be any wetlands impacts, and if stream and wetlands impacts combined would exceed the 0.50 acre threshold for a NWP 14 permit.

Second, based on the small amount of information in the EA, it appears that the Project involves, but is not limited to, the channelization of the Rio de Flag [Sec. 4.7.3.1]. NWP 14 permits do not, however, allow stream channelization or activities that will cause increased flooding. [NWP 14, subsec. f.] 39

Finally, the EA does not state what specific conditions must be met to qualify for an NWP 14 permit, and if the Project will, in fact, meet those conditions. For example, one of the regional conditions added to the NWP general conditions by the U.S. Army Corps of Engineers Los Angeles District is that, in the State of Arizona, a NWP 14 permit cannot be used to authorize the discharge of dredged or fill material into a wetland. Because the Amended EA states that the Project will cause direct and indirect impacts to wetlands, but does not identify the size and location of those wetlands, it is impossible to tell if the Project will cause a discharge of dredged or fill material into a wetland. Thus, it is questionable if the Project would qualify for a NWP 14 permit, as the Amended EA "anticipates." [Response to Comment 102, p. J-39] 40

While the EA provides few answers to the questions relevant to the Project's water quality impacts, it is clear that, at minimum, the Project "threatens" violation of, among others, the Clean Water Act. Pursuant to NEPA and the FAA's implementing regulations, an EIS is required to fully explore and respond to these issues.

V. CONCLUSION.

The Amended EA fails to address the major issues raised with respect to the original EA, *i.e.*, the Project's potential for direct and indirect noise and water quality impacts on surrounding land use to the northeast, as well as the southwest of the airport. The Amended EA's omissions are at least partially a function of its identity as an EA, "a concise public document . . . that serves to [provide] sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement or a Finding of No Significant Impact." 40 C.F.R. § 1508.9. Based on the information, or lack thereof, in the Amended EA, more than a preliminary analysis is required to reveal the full extent of the Project's noise and water quality impacts. Lone Tree, therefore, once again renews its repeated requests that an EIS be published that fully addresses these complex issues, and thereby meets NEPA's underlying informational purpose.

Lone Tree thanks the airport and the FAA for this opportunity to comment.

Sincerely,

CHEVALIER, ALLEN & LICHMAN, LLP

Barbara Lichman

Barbara E. Lichman, Ph.D.

cc: Patricia Nolan, Esq.
George Williams
David B. Kessler, AICP, FAA Western Pacific Region

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Grand Canyon Chapter • 202 E. McDowell Rd, Ste 277 • Phoenix, AZ 85004
Phone: (602) 253-8633 Fax: (602) 258-6533 Email: grand.canyon.chapter@sierraclub.org

19 January 2005

Michael Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

REF: Amended Draft Environmental Assessment for Proposed Airport Improvements at Flagstaff Pulliam Airport, November 2005

Dear Mr. Covalt:

The following comments are offered on behalf of the 13,000 members of the Grand Canyon Chapter of the Sierra Club, which helps protect the state of Arizona. Club members in the Flagstaff area prepared the comments, which were presented to the chapter's Grand Canyon Protection Campaign Committee for review.

We have reviewed the *Amended Draft Environmental Assessment for Proposed Airport Improvements at Flagstaff Pulliam Airport*. We are pleased to note the many edits, corrections, improvements, and responses were made regarding a number of the specific concerns we expressed in our 4 August 2005 letter and associated oral statements.

Root Concern

As noted before, our root concern is that airport improvements and growth will indirectly affect the natural soundscape at the Grand Canyon. The National Park Service and the Federal Aviation Administration (FAA) are legally mandated to substantially restore natural quiet at the park, which is affected by airtour rides, commercial aviation, and general aviation. Our focus here is to prevent further degradation of the park soundscape. In our August letter we said, "If there could be mitigation in this regard, our root concerns would be put to rest." 41

Mitigation Sought

The mitigation we seek is an FAA airspace regulation or an FAA air traffic regulation. The regulation would ensure that all direct Flagstaff airport to Salt Lake City commercial service, and all direct Salt Lake to Flagstaff commercial service, would be routed east of the Grand Canyon Special Flight Rules Area (GC SFRA). The traffic would be routed sufficiently far from the SFRA to keep audible noise out of Grand Canyon National Park (GCNP). This would obviate the need for a detailed cumulative impact analysis and environmental impact statement (EIS) to evaluate the impacts on the park. 42

Discussion

The responses to our root concerns and requests (see Page J-7 of referenced document) are interesting but are not sufficient, for the following reasons: 43

1. The Grand Canyon Working Group (GCWG) does not have the authority to implement or direct the requested route change. The fact that the GCWG may be evaluating noise reduction techniques such as this falls far short of a guarantee that the group will achieve the necessary consensus, or that the FAA will act to implement such route changes. 43a

2. We are encouraged that the City of Flagstaff will lobby Flagstaff to Salt Lake commercial service providers to select a high altitude victor route that would avoid the GCNP. However, that is not a guarantee as would occur from the FAA ensuring, by its traffic management directives, that this would be done. 43b

The unsatisfactory noise situation, continuing and projected, over the GCNP, is notably evident in the Volpe Labs noise analysis contained within the amended draft environmental assessment (see Appendix L). These levels of impact remain far out of compliance with the National Parks Overflights Act of 1987, with now only two years remaining until a final rule and final EIS are to be published, that shall effectuate, by 22 April 2008, "the substantial restoration of the natural quiet" in Grand Canyon National Park. 44

The Grand Canyon "Tier Two" analysis (see Appendix L) confirms that the addition of Flagstaff to Salt Lake service along route alignments such as modeled in Figure 1 (Modeled Flight Tracks between Flagstaff and Salt Lake City) will introduce as much as an additional half hour of noise daily over several numbered grid-points in the eastern Grand Canyon National Park. Flagstaff to Salt Lake commercial service has not historically used these routes as mapped; the 1980s service did not provide non-stop service between Flagstaff and Salt Lake City. Most or all of it was via GCNP Airport, SGU, or Page airport routings that did not overfly the Grand Canyon grid points displayed in Figure 1. 45 46

The FAA, if serious about responding to achieve noise reduction at the GCNP in compliance with the Overflights Act, needs to evaluate and modify commercial jet traffic routes, such as this one. A route such as this is "low hanging fruit," because (1) no commercial service is presently using, or has recently used, the route; and (2) the total route length (nearly 400 statute miles point-to-point) would show only a miniscule increase, if at all, once the mitigation was instituted as part of the record of decision. 47

As to other aspects of the Amended Draft Environmental Assessment, we observe:

1. Wilderness Impacts – No DOT 4(f) noise impact analysis was performed, though such still should be, on U.S. Forrest Service designated wilderness units most proximal to the Flagstaff airport. Concern for nearby established wilderness areas was mentioned on Page 2 of our 48

scoping letter of 13 August 2003, and also on Page 2 of the Grand Canyon Trust scoping letter of 15 August 2003. See similar references and requests on Pages 1 and 4 of the 15 August 2005 comment letter on the draft environmental assessment (DEA), from Rob Elliott. The importance of protecting designated wilderness character was amply set forth in both the Sierra Club and the Grand Canyon Trust letters.

Yet, the Amended DEA (see Page I-14) refers to a possible Flagstaff to Los Angeles potential commercial service routing which – if prior mitigation is not made – could newly, persistently, and frequently overfly the Red Rock Secret Mountain Wilderness Area and Sycamore Wilderness Area (see map in Exhibit 2D of the DEA.) The noise impacts could substantially impair wilderness character. 49

2. Aviation Forecasts – It would not be prudent to maintain such outdated aviation activity forecasts into a 2006 Final EA and record of decision. This seems increasingly untenable in light of soaring oil prices. We do respectfully note your comment – in Response 16 – that such maintenance as baseline nonetheless provides a "worst case" evaluation of potential environmental impacts. 50

The Sierra Club Grand Canyon Chapter appreciates the opportunity to provide comments to the City of Flagstaff, the Federal Aviation Administration, and Coffman Associates. Thank you for your consideration.

Sincerely yours,

Jim McCarthy
Vice-Chairman
Sierra Club – Grand Canyon Chapter

cc: Ken McMullen, Grand Canyon National Park

Sedona Airport Safety Council
P.O. Box 3758
Sedona, AZ 86340

Sedona Airport Safety Council

Flagstaff Pulliam Airport
Michael Covalt, Airport Manager
6200 South Pulliam Drive
Flagstaff, AZ 86001

January 18, 2006

Dear Michael Covalt:

As director of the Sedona Airport Safety Council LLC, supported by more than 250 residents of Sedona, I would like to ask that this letter be read into the record of the meeting concerning the Pulliam Airport expansion plans.

The Sedona Airport Safety Council LLC, supports the plans to expand the length of the Pulliam runway to 8,800 feet. With more than 4 million visitors a year to the Sedona area alone, this expansion will help safely accommodate future jet traffic to the Northern Arizona region. The Sedona Airport runway, with its steep dropoffs, lacks the sufficient safety runoff area necessary for many of the jets now using the airport to land and take off safely. The Pulliam Airport, with its proposed improved runway, is a much safer alternative for jet traffic, and this is why we fully support its expansion. 51

Sincerely,

Michael Cosgrove
Director, Sedona Airport Safety Council LLC

arizona's GO outdoors people

canyoneers

3/29/2006

Mr. Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 S. Pulliam Drive, Suite 204
Flagstaff, AZ 86001

Dear Mr.Covalt,

I am writing this letter in support of the Pulliam Airport runway extension. 52

It is vital to the economic growth of Flagstaff that regional jets be able to fly into Flagstaff. Today they cannot do so because our runway is too short.

If we are to retain existing businesses and attract new businesses to Flagstaff the airport improvement plans must go forward.

Reliable air service has long been a problem in Flagstaff. It will continue to be a problem if the runway extension plans are not accomplished.

We urge you to move forward with this very important project.

Sincerely,
Joy I Staveley

Joy Iris Staveley
Vice President
Chief Operating Officer
Canyoneers, Inc.
<joy@canyoneers.com>

post office box 2997 flagstaff az 86003
520-526-0924 www.canyoneers.com 520-527-9398 fax

CHEVALIER, ALLEN & LICHMAN LLP
Attorneys at Law
Commercial Litigation • Aviation Law & Litigation • Environmental Law & Litigation

Gary M. Allen, Ph.D.
John Chevalier, Jr.*
Berne C. Hart
Barbara E. Lichman, Ph.D.
Jacqueline E. Serrao, LL.M.•
Frederick C. Woodruff+

*Retired
+Admitted in New York
•Of Counsel

695 Town Center Drive, Suite 700
Costa Mesa, California 92626
Telephone (714) 384-6520
Facsimile (714) 384-6521
E-mail cal@calwirlaw.com

April 19, 2006

By Facsimile and Federal Express
(928)556-1288

Michael A. Covalt
Airport Manager
Flagstaff Pulliam Airport
6200 South Pulliam Drive, Suite 204
Flagstaff, Arizona 86001

Re: Comments - Amended Draft Environmental Assessment for Proposed Airport Improvements at Flagstaff Pulliam Airport

Dear Mr. Covalt:

We represent Lone Tree Investments, LLC ("Lone Tree"). We have reviewed the Amended Draft Environmental Assessment for Proposed Airport Improvements at Flagstaff Pulliam Airport again during the extended public comment period. Our January 18, 2006 comments on the Amended EA remain unchanged. 53

Sincerely,

CHEVALIER, ALLEN & LICHMAN, LLP

Berne C. Hart

cc: Patricia Nolan, Esq.
George Williams
David B. Kessler, AICP, FAA Western Pacific Region

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Arizona Daily Sun
Gary Smith
UniSource
John Sinnger
W.L. Gore

April 24, 2006

Mr. Mike Covalt
Flagstaff Pulliam Airport Manager
Pulliam Airport
Flagstaff, AZ 86001

Dear Mr. Covalt:

The Flagstaff Chamber of Commerce is greatly disappointed to hear that the review process for the Environmental Assessment (EA) regarding Flagstaff's Pulliam Airport was open for public comment once again. As you know, we supported the EA in August of 2005. 54

Clearly, the total economic impact of aviation activity at the Flagstaff Pulliam Airport is more than $117 million annually.[i] This economic impact originates from aviation–related activities which include commercial air service, cargo transport, military activities and travel and tourism among others.

These aviation activities create "spin-off" impacts that include jobs and consumer spending which support non-aviation businesses throughout the Northern Arizona region in the cities of Sedona, Flagstaff, Camp Verde, Williams, Winslow, Page, Coconino and Yavapai Counties and more. Airport activity affects more than 1,400 jobs with a payroll of $40 million.[ii]

The Flagstaff Chamber of Commerce has supported extending the existing runway for many years because of the increased economic benefit to the Flagstaff business community and the entire northern Arizona region. Residents alike will benefit from the prospect of adding an additional airliner with new hubs such as Salt Lake City, Denver or Las Angeles. Most of us would also agree that businesses in Flagstaff are very reliant on reliable air transportation to meet daily needs and future growth. In addition, businesses looking to locate in Flagstaff are greatly concerned with the reliability of air service.

Therefore, on behalf of the Flagstaff business community, we support the existing Environmental Assessment and embrace the runway extension for the benefit of the citizens of Flagstaff, Flagstaff businesses and the surrounding northern Arizona community.

101 W. Route 66 • Flagstaff, Arizona 86001-5598 • (928) 774-4505 • FAX (928) 779-1209
www.flagstaffchamber.com

The Flagstaff Chamber of Commerce represents more than one thousand businesses in Flagstaff and northern Arizona. Clearly, we feel the need to extend the runway in order to improve air service is real in our rural economy.

Thank you for your consideration. We look forward to working with you on the extension of our Airport runway and growing our business community in Flagstaff.

Sincerely,

Julie M. Pastrick

Julie Pastrick
President/CEO
Flagstaff Chamber of Commerce

---

[i] Flagstaff Pulliam Airport *Economic Impact and Aviation Services* brochure, produced by the City of Flagstaff, Michael Covalt Airport Manager
[ii] Ibid.

ATTACHMENT F

Attachment F
RESPONSES TO COMMENTS RECEIVED DURING THE SECOND PUBLIC HEARING

This attachment contains detailed responses to comments received during the second public hearing on the *Amended Draft Environmental Assessment for Proposed Airport Improvements at Flagstaff Pulliam Airport*. Copies of the comments received are contained within Attachment E. **Table F1** provides a list of the commentors, including the assigned comment number and the page, within this appendix, that the response(s) to their comment(s) can be found.

TABLE F1 Summary of Comments Received During Second Hearing Flagstaff Pulliam Airport EA				
Commentor Name	**Representing**	**Page Number(s) of Comment(s)**	**Comment Number(s)**	**Page Number(s) of Response(s)**
Verbal Comments Received at the Public Hearing				
Jim McCarthy	Vice Chairman of the Sierra Club	F-2 – F-3	1-4	E-15 – E-16
Paul Jones	Private Citizen	F-3 – F-6	5-11	E-17 – E-19
John Martin	Private Citizen	F-6	12-13	E-19 – E-20
Earl Slipher	Private Citizen	F-6	14	E-20
Gloria Slipher	Private Citizen	F-7	15	E-21
Written Comments Received During the Public Hearing Comment Period				
Barbara E. Lichman, Ph.D.	Chevalier, Allen & Lichman LLP, representing Lone Tree Investments, LLC	F-7 – F-12	16-20	E-28 – E-39
Jim McCarthy	Sierra Club – Grand Canyon Chapter	F-12 – F-16	20-27	E-25 – E-27
Michael Cosgrove	Sedona Airport Safety Council LLC	F-16	28	E-40

COMMENT 1: My understanding is that the new document is substantially better. It did address, as he said in the presentation, many of the questions that we had .....

RESPONSE 1: **Comment noted.**

COMMENT 2: ...my understanding is that it shows that if we get regional jets going between Flagstaff and Salt Lake City that the noise over the Grand Canyon will increase approximately half an hour per day. So if that happens, there will be more – it is my understanding there will be more noise over the Grand Canyon.

RESPONSE 2: **Both of the alternatives evaluated, the No Action and Proposed Action Alternatives resulted in an increase in noise over the Grand Canyon; however, the Proposed Action would result in a lesser impact than the No Action Alternative.**

COMMENT 3: ...our primary concern is the Grand Canyon, and the law saying that we have to substantially restore the natural [national] quiet at the Grand Canyon is going to be made more difficult if we have regional jets going between those two cities.

RESPONSE 3: **The purpose of this EA was not to evaluate the routing of aircraft between the two cities, but to evaluate the potential impacts of the proposed project versus the No Action Alternative.**

COMMENT 4: ...what we would like to see is an agreement that the airplanes that fly that route take a route east of the Grand Canyon, and therefore, there would not be impasse to the Grand Canyon.

RESPONSE 4: **The overflight of the Grand Canyon is beyond the scope of what the City of Flagstaff, as the project sponsor, can control. Grand Canyon overflights are being evaluated by various entities within the FAA and the National Park Service.**

COMMENT 5: In the document it alluded to the things like the Grand Canyon Working Group, which incidentally I sit on, and just because the Grand Canyon Working Group is talking about those things doesn't mean that they're going to happen. What we would really like to do is see the city and the FAA come to an agreement that we route aircraft around the east side of the Grand Canyon.

RESPONSE 5: **The City of Flagstaff does not have control of aircraft arriving to or departing from their airport once they leave the airspace immediately surrounding the airport. As discussed previously, the scope of this project is to evaluate the Proposed Action and No Action project alternatives. As indicated in the analysis contained within the Amended Draft EA, implementation of the Proposed Action Alternative results in less of an impact on the Grand Canyon than the No Action Alternative.**

COMMENT 6: I personally would like to request the FAA to do a CIS [EIS] to determine the real noise impact around the north runway 21.

RESPONSE 6: **Comment noted.**

COMMENT 7: The biggest problem I had was with the military aircraft that they included in the noise study. They are not aircraft that seem to be flying into Flagstaff. The two aircraft that they showed are low-noise type aircraft, as opposed to the big helicopters that we get in here quite often, as well as we have C-130s in here all the time doing approaches and stuff. It makes no mention of that.

RESPONSE 7: **As discussed within the response to Comment 147 in Appendix J of the Amended Draft EA, the types of military aircraft entered into the noise modeling were selected based on interviews with airport staff, the fixed base operator, and airport traffic control tower staff.**

COMMENT 8: Another factor of the military is that if we extend the runway, right now because our runway isn't 7,000 feet long, there are a number of jet aircraft that can't – that are restricted from landing at Flagstaff because there is a requirement of having at least 7,000 feet. I suspect if we extend the runway that the amount of military traffic would increase noticeably. I'm not sure how much, but I know that would have a significant impact on the EA or the noise study that was done.

RESPONSE 8: **The amount of runway available for landing to the southwest will be the same after the extension due to the displaced threshold; therefore, there will not be more runway available on landing for military aircraft. Due to the runway length needs of most military aircraft, it is not anticipated that the military fleet mix will change dramatically after the runway is extended.**

COMMENT 9: I don't feel the questions that I had in here that you tried to answer were actually answered. I still have the same problem with the numbers. The information detailed in the EA is filled with inaccuracies, and the forecasts contained within are optimistically influenced by a minimum factor of 22 percent.

RESPONSE 9: **See response to Comment 2.**

COMMENT 10: I expect the same thing would happen if you go to regional jets. We'd be down to three jets a day. If we lost business off that, if people didn't fly that, Mesa would drop down to two jets, and I

don't think they will bring two jets a day to Flagstaff, which means they will cancel our air service. The FAA does not have any subsidy for the Flagstaff Airport to encourage airlines to come here, so because of that, there is a real possibility that we would lose all of our air service.

RESPONSE 10: **Typically, enplanements increase when regional jets are introduced to the commercial service fleet mix at an airport. In regards to the loss of commercial service at the airport, Flagstaff Pulliam Airport has had commercial airline service for over 20 years. Based on this historical information, as well as the typical success of an airport with regional jet service, the likelihood of the airport losing service is extremely low.**

COMMENT 11: I guess because of these problems, I would recommend that we don't do the runway extension. It is not necessary. The airlines haven't said they were going to use regional jets and the manufacturer of the regional jets and the Dash 8 say that turbo-prop sales are up and regional jet sales are down because the props are more efficient by a factor of about 30 percent. Because of the high cost of fuel, which has doubled from last year, this is becoming a significant problem for the airlines.

RESPONSE 11: **The proposed airport improvements are not being undertaken for only the possible regional jet transition, but are also being undertaken to accommodate the existing business jet fleet mix currently utilizing the airport. If the improvements were not needed for the commercial service fleet mix, they would still be needed for the general aviation business jet mix.**

COMMENT 12: My feeling is that this runway extension is necessary for Flagstaff as a community to expand, to grow, to economically go ahead. If we are stuck with a 6,999-foot runway, turbo-props aren't going to be forever. We are going to have to get RJ's in here in order to accommodate the traffic we are going to need in the future or going to have in the future, and so for that basic reason, I'm definitely in favor of the extension.

RESPONSE 12: **Comment noted.**

COMMENT 13: I'm also an active member of the Grand Canyon Trust, but as far as the environmental stuff is concerned, I'm not worried about the RJ's. I'm not really worried about the military either because we are not going to have that many, I don't feel, in this area.

RESPONSE 13: **Comment noted.**

COMMENT 14: It appears to me that for aircraft in Flagstaff to progress, the runway's extension is necessary to allow jet aircraft to use the Flagstaff Airport. Hopefully that will reduce the cost for the citizens of Flagstaff because they are much more efficient than the turbo-prop aircraft. That is one of the main reasons for being here, to voice my support for the runway extension.

RESPONSE 14: **Comment noted.**

COMMENT 15: ...I am really for safety, but I am also here hoping that with the runway extension I think it will give better service to the people of Flagstaff.

RESPONSE 15: **Comment noted.**

COMMENT 16: The public was not provided with the notice of the Amended EA's comment period or access to the Amended EA sufficient to fulfill the fundamental informational purpose of the National Environmental Policy Act ("NEPA), 42 U.S.C. § 4321, *et seq*.

RESPONSE 16: **A legal notice was printed in the Arizona Daily Sun on December 11, 2005, announcing the availability of the Amended Draft EA; the location, date, and time of the public hearing; and the date the comment period would end for the amended document. This legal notice was followed up with a graphic advertisement approximately two weeks prior to the hearing. The advertisement also contained the date, location, and time for the public hearing.**

To ensure interested parties were afforded the opportunity to review the Amended EA, copies of the document were provided to individuals who attempted to view the document on-line. A copy was Federal

Expressed to the commentor's offices on January 12, 2006.

COMMENT 17: The Amended EA artificially inflates the "No Action" baseline so as to diminish the Project's apparent environmental impacts. ... Flagstaff needs to go back to the drawing board for an EIS that sets forth and adequately supports: (1) consistent operational projections; (2) a supportable "No Action" alternative to serve a baseline for analysis; and (3) a consistent comparison that results in revelation of the Project's true impacts. (This is a summary of the commentor's comments found on pages 3 through 5 of their letter.)

RESPONSE 17: **This comment initially refers to Tables 1C and 4A in the Amended EA, claiming they are inconsistent. The first claim is that the actual airline operations numbers for 2003 differ by 206 in the two tables. As indicated in the tables, Table 1C is taken from the Airport Master Plan, and Table 4A is taken from the FAR Part 150 Study. Table 4A also has a footnote for the 2003 Existing column that states, "Year 2003 operations are based upon calendar year 2002 ATCT counts, with an adjustment for nighttime operations when the ATCT is closed." Thus, both are accurate presentations of the data.**

The second claim regarding discrepancies in the tables refers to forecast operations for 2010 in Table 1C and 2011 in Table 4A. The commenter claims that the No Action airline operations forecast for 2011 (Table 4A) is 418 operations higher than the 2010 forecast of airline operations in Table 1C. These figures were developed based upon forecasts of passenger enplanements and the types of aircraft expected to be utilized. The proposed action forecast for 2010 expects 82,000 enplaned passengers to be carried by 2,800 departures (5,600 operations). The No Action forecast expects 41,850 enplaned passengers in 2011 to be carried by 3,009 departures (6018 operations). The proposed action forecasts would have approximately 29 passengers per departure on 50-seat aircraft for a 59 percent load factor. The No Action alternative would have approximately 14 passengers per departure on 19-seat aircraft for over a 70 percent load factor.

Even though the No Action alternative results in approximately half as many passengers, more operations would be necessary because of the smaller seating capacity.

While there is a growth in operations under the No Action alternative, the passenger activity is projected to increase from 36,400 in 2003 to 41,850 in 2011. This would be an average annual increase of 1.7 percent. This is well below the projected growth rates for area population and employment, as well as for U.S. domestic enplaned passengers.

The commenter also suggests that the baseline for comparison has been "artificially elevated," thereby masking the comparative project effects. With regard to airline operations, which the commenter is questioning, the Tier Two Supplemental analysis in the amended EA actually considers two different "No Action" scenarios. As outlined on page 4-20 of the Amended EA, Alternative One is the Existing Condition. This is used for comparison of today's operational scenario to the future operations. In essence, this alternative assumes that nothing changes and operations remain flat at Flagstaff. Thus, this alternative assumes the Dash 8 aircraft will continue to fly only to Phoenix. Alternative Two assumes the introduction of the Beech 1900 between Flagstaff and Salt Lake City. Both are used for comparison to the Proposed Action.

COMMENT 18: The data in the Amended EA is inadequate to support its conclusions concerning projected passenger growth resulting from introduction of regional jets; comparative operational performance of RJs and large commercial aircraft such as the 737-300; noise impacts on approach from the northeast to Runway 21; and the relationship of the represented flight tracks to the Project's purposed noise contours. (This is a summary of the commenter's comments found on pages 6 through 8 of their letter.)

RESPONSE 18: **<u>Passenger Growth</u>. The commenter requested data to support the EA's position that the improvement of service at Flagstaff Pulliam Airport will increase ridership. Bloomington/Normal Airport in Illinois grew**

from 41,776 enplanements in 1986 to 236,343 in 2000. Eagle County, Colorado saw improved service skyrocket its traffic from nothing in the mid-1980's to 184,562 in 2000. Roberts Field in Redmond, Oregon has experienced a growth rate of 14.3 percent since 1986. Finally, San Luis Obispo, California, has grown at an annual average rate of 8.7 percent since 1989.

<u>Operational Performance of Regional Jets versus Boeing 737's</u>. Boeing 737 aircraft have historically operated at the airport. Those involved with master planning efforts at the airport do not anticipate these aircraft serving Flagstaff Pulliam Airport in the planning period.

<u>Noise Impacts on Approach to Runway 21 and the Relationship of the Flight Tracks to the Noise Contours</u>. Consolidated flight track data is based upon a review of local and regional air traffic control procedures as well as interviews with airport traffic control tower staff. Over 80 percent of Flagstaff Pulliam Airports operations are general aviation activity with a majority of these operations flying under visual flight rules. Therefore, aircraft overflights can be expected in every quadrant of the airport vicinity.

The distance the noise contours extend from the airport can be measured from Exhibits 4B, 4C, and 4D. Actual noise measurements taken during the development of the concurrent 14 CFR Part 150 Noise Compatibility Study were used to validate the extent of the existing condition noise exposure contours (See Chapter Three, Aviation Noise from the Noise Exposure Maps document for Flagstaff Pulliam Airport).

The commenter's statement "Exhibit 4D are largely unchanged from the 2006 65 DNL contours, despite the proposed addition to the 2011 fleet mix of thousands of business jets," is incorrect. Business jets are projected to increase by only 829 operations from 2006 to 2011. The growth in the noise contours caused by the increase in business jets is somewhat offset by a reduction in louder Stage 2 business jets by 141 during that same forecast period. A Stage 2 Lear 24 has a sound exposure level of 119.7 dBA compared to a Stage 3 Lear 35 which is 105.0 for the same distance and thrust level on departure.

Also see response to comments 96 and 99 in Appendix J of the Amended Draft EA.

The commenter stated that the potential impacts of the potential future removal of the displaced threshold must be evaluated within this EA, as the possible removal of the displaced threshold is a "connected action." The proposed improvements at Flagstaff Pulliam Airport include the displacement of the extended runway due to various obstructions in the airport vicinity, including Mount Elden to the north. This displacement cannot be removed until aviation guidance technology is improved in future years. Currently the airport has no plans to remove the threshold; therefore, it was not addressed within the EA.

COMMENT 19: The Amended EA lacks even the most cursory analysis of the Project's water quality impacts.

RESPONSE 19: **On pages 8 and 9 of the commenter's letter, concern regarding potential water quality impacts was outlined. Additionally, the commenter questioned the EA's conclusion regarding the level of significance assigned to the potential wetland impacts. In regards to water quality, the Arizona Department of Environmental Quality and the Arizona Department of Water Resources were consulted with during the preparation of the EA regarding water quality concerns. These agencies did not respond to the initial scoping letters. In order to allow the agencies an additional opportunity to evaluate potential project impacts, a letter was sent to them in July 2005 announcing the availability of the Draft EA for review and comment. Representatives from the Arizona Department of Environmental Quality obtained the EA from the project website; however, no comment letter was received. Therefore, the consultant determined that the water quality analysis and mitigation was suitable and a level of significant impact would not be reached. The project sponsor will acquire all necessary permits prior to construction, and the use of best management practices will help to ensure that water quality impacts are avoided to the extent possible.**

In regards to wetland impacts, after design of the proposed airport improvements, the project sponsor will coordinate with the U.S. Army Corps of Engineers (COE) to obtain any necessary permits. Until the design is complete, the full impact on jurisdictional waters cannot be determined. If a permit is obtained too early in the process, the full wetland and jurisdictional water impacts could be underestimated, thereby resulting in impacts not reflected within the project permits. The COE was sent a letter announcing the availability of the Draft EA and no response was received.

COMMENT 20: The Amended EA gives short shrift to the Project's demonstrable cumulative impacts.

RESPONSE 20: **Where cumulative impacts were anticipated, extensive analysis was undertaken to ensure the project would not result in a cumulatively significant impact to any resource categories. Agency coordination was undertaken to determine those resource categories which could be significantly impacted. The only agency that indicated concern from a cumulative perspective was the National Park Service. To address the agency's concerns, a detailed supplemental noise analysis was undertaken. Additional concerns were raised by the public regarding localized noise impacts. These were addressed through the Airport's 14 CFR Part 150 Study.**

COMMENT 21: In our August letter we said, "If there could be mitigation in this regard, our root concerns would be put to rest..." The mitigation we seek is an FAA airspace regulation or an FAA air traffic regulation. The regulation would ensure that all direct Flagstaff airport to Salt Lake City commercial service, and all direct Salt Lake to Flagstaff commercial service, would be rerouted east of the Grand Canyon Special Flight Rules Area (GC SFRA). The traffic would be routed sufficiently far from the SFRA to keep audible noise out of Grand Canyon National Park (GCNP). This would obviate the need for a detailed cumulative impact analysis and environmental impact statement (EIS) to evaluate the impacts on the park.

RESPONSE 21: **Comment noted. This comment was addressed on Page J-7 of the Amended Draft EA.**

COMMENT 22: The responses to our root concerns and requests (see Page J-7 of referenced document) are interesting but are not sufficient for the following reasons:

1. The Grand Canyon Working Group (GCWG) does not have the authority to implement or direct the requested route change. The fact that the GCWG may be evaluating noise reduction techniques such as this falls far short of a guarantee that the group will achieve the necessary consensus, or that FAA will act to implement such route changes.
2. We are encouraged that the City of Flagstaff will lobby Flagstaff to Salt Lake commercial service providers to select a high altitude victor route that would avoid the GCNP. However, that is not a guarantee as would occur from the FAA ensuring, by its traffic management directives, that this would be done.

RESPONSE 22: **Comments noted. Again, the City of Flagstaff has no direct control over aircraft utilizing their airport once the aircraft have left the ground; however, the city will make every effort to encourage pilots utilizing the airport to avoid overflight of the Grand Canyon National Park (GCNP). Should a commercial service provider choose to service the Salt Lake City market, the city will lobby this provider to select a high altitude victor route which will avoid the GCNP.**

COMMENT 23: The unsatisfactory noise situation, continuing and projected, over the GCNP, is notably evident in the Volpe Labs noise analysis contained within the amended draft environmental assessment (see Appendix L). These levels of impact remain far out of compliance with the National Parks Overflights Act of 1987, with now only two years remaining until a final rule and final EIS are to be published, that shall effectuate, by 22 April 2008, "the substantial restoration of the natural quiet" in Grand Canyon National Park.

RESPONSE 23: **Comment noted.**

COMMENT 24: The Grand Canyon "tier two" analysis (see Appendix L) confirms that the addition of Flagstaff to Salt Lake service along route alignments such as modeled in Figure 1 (Modeled Flight tracks

between Flagstaff and Salt Lake City will introduce as much as an additional half hour of noise daily over several numbered grid-points in the eastern Grand Canyon National Park. Flagstaff to Salt Lake City commercial service has not historically used these routes as mapped; the 1980s service did not provide non-stop service between Flagstaff and Salt Lake City. Most or all of it was via GCNP Airport, SGU, or Page airport routings that did not overfly the Grand Canyon grid points displayed in Figure 1.

RESPONSE 24: **The purpose of the Tier Two analysis was to allow for a detailed comparison of potential impacts on GCNP between the No Action and Proposed Action alternatives. The forecast existing condition (results in Table 7 in Appendix L) was provided for informational purposes. The commenter's interpretation of the Time Above (TA) results of Table 7 compared to Table 8 (results of Proposed Action analysis) is incorrect. "An additional half hour of noise daily" will not be introduced. The purpose of analysis with the TA metric is to determine approximately how many minutes the grid point area would experience noise levels above the ambient condition. For example, at Grid Point 64, the analysis found that the ambient noise level is exceeded 1,344.5 minutes per day for the forecast existing condition. The ambient level, with implementation of the proposed action alterative, may be exceeded 1,365.3 minutes per day. This translates to an additional 20.8 minutes of the day, or approximately one minute per hour, that the ambient level would be exceeded with the introduction of regional jet service to Salt Lake City.**

COMMENT 25: The FAA, if serious about responding to achieve noise reduction at the GCNP in compliance with the Overflights Act, needs to evaluate and modify commercial jet traffic routes, such as this one. A route such as this is "low hanging fruit," because (1) no commercial service is presently using, or has recently used, the route; and (2) the total route length (nearly 400 statue miles point-to-point) would show only a miniscule increase, if at all, once the mitigation was instituted as part of the record of decision.

RESPONSE 25: **The purpose of the EA was to evaluate the Proposed Action impacts to the No Action impacts. The analysis**

included within the EA determined that the Proposed Action alternative results in fewer noise impacts on GCNP than the No Action alternative. The GCWG is evaluating noise reduction techniques for GCNP.

COMMENT 26: No DOT 4(f) noise impact analysis was performed, though such still should be, on U.S. Forest Service designated wilderness units most proximal to the Flagstaff airport. Concern for nearby established wilderness areas was mentioned on Page 2 of our scoping letter of 13 August 2003, and also on Page 2 of the Grand Canyon Trust scoping letter of 15 August 2003. See similar references and requests on Pages 1 and 4 of the 15 August 2005 comment letter on the draft environmental assessment (DEA), from Rob Elliott. The importance of protecting designated wilderness character was amply set forth in both the Sierra Club and the Grand Canyon trust letters.

Yet, the Amended DEA (see Page I-14) refers to a possible Flagstaff to Los Angeles potential commercial service routing which – if prior mitigation is not made – could newly, persistently, and frequently overfly the Red Rock Secret Mountain Wilderness Area and Sycamore Wilderness Area (see map in Exhibit 2D of the DEA.) The noise impacts could substantially impair wilderness character.

RESPONSE 26: **According to Appendix A of FAA Order 1050.1E, Section 4(f) properties are defined as "publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land from an historic site of national, State, or local significance as determined by the officials having jurisdiction thereof..." The U.S. Forest Service indicated that their properties located in the vicinity of the airport would not be considered Section 4(f) properties. Refer to the letter contained on page B-33 of the Amended Draft EA. Along these same lines, the agencies charged with oversight of the Red Rock Secret Mountain Wilderness Area and Sycamore Wilderness Area did not indicate concern regarding potential impacts to these resources.**

COMMENT 27: It would not be prudent to maintain such outdated aviation activity forecasts into a 2006 Final EA and record of decision. This seems increasing untenable in light of soaring oil prices.

We do respectfully note your comment – in Response 16 – that such maintenance as baseline nonetheless provides a "worst cast" evaluation of potential environmental impacts.

RESPONSE 27: **Comment noted.**

COMMENT 28: The Sedona Airport Safety Council LLC, supports the plans to expand the length of the Pulliam runway to 8,800 feet. With more than 4 million visitors a year to the Sedona area alone, this expansion will help safely accommodate future jet traffic to the Northern Arizona region. The Sedona Airport runway, with its steep dropoffs, lacks the sufficient safety runoff area necessary for many of the jets now using the airport to land and take off safely. The Pulliam Airport, with its proposed improved runway, is a much safer alternative for jet traffic, and this is why we fully support its expansion.

RESPONSE 28: **Comment noted.**

Coffman Associates
Airport Consultants

KANSAS CITY
(816) 524-3500

237 N.W. Blue Parkway
Suite 100
Lee's Summit, MO 64063

PHOENIX
(602) 993-6999

4835 E. Cactus Road
Suite 235
Scottsdale, AZ 85254