

U.S. DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Western-Pacific Region

Hawthorne, California

***FINDING OF NO SIGNIFICANT
IMPACT AND
RECORD OF DECISION***

**PROPOSED
1,801 FOOT EXTENSION TO RUNWAY 3/21 AND
THE PARALLEL TAXIWAY SYSTEM AND OTHER
ASSOCIATED IMPROVEMENTS**

**FLAGSTAFF PULLIAM AIRPORT
Flagstaff, Coconino County, Arizona**



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GENERAL INFORMATION ABOUT THIS DOCUMENT

WHAT'S IN THIS DOCUMENT? This document is the Federal Aviation Administration's (FAA) Finding of No Significant Impact (FONSI) and Record of Decision (ROD) for proposed improvements to the Flagstaff Pulliam Airport (FLG), Flagstaff, Coconino County, Arizona. This document includes those final agency determinations and approvals for those proposed federal actions described in the Final EA dated June 2006. This document discusses all alternatives considered by the FAA in reaching its decision, summarizes the analysis used to evaluate the alternatives, and briefly summarizes the potential environmental consequences of the Flagstaff Pulliam Airport Improvements Alternatives and the No Action Alternative, which are evaluated in detail in this FONSI and ROD. This document also identifies the environmentally preferred alternative and selects the Airport Improvement Alternative for implementation at FLG. This document identifies applicable and required mitigation.

BACKGROUND. In July 2005, the City of Flagstaff prepared a Draft Environmental Assessment (DEA). The DEA addressed the potential environmental effects of the proposed FLG Airport Development Program (ADP), Alternative and reasonable Alternatives to that proposal. The DEA was prepared in accordance with the requirements of the National Environmental Policy Act (NEPA). FAA published the Notice of Availability for the DEA on July 19, 2005. FAA received comments on the draft between July 19, 2005 and August 26, 2005.

Copies of this FONSI and ROD are available for inspection at various libraries in the Flagstaff area; the FAA Headquarters Office in Washington, D.C. and Western-Pacific Regional Office in Hawthorne, California; and at the administrative offices of FLG.

WHAT SHOULD YOU DO? Read the Record of Decision to understand the actions that FAA will take relative to the FLG Airport Improvement Alternative.

WHAT HAPPENS AFTER THIS? The City of Flagstaff may begin to carry out the Airport Improvement Alternative as funds become available.

TABLE OF CONTENTS

	SECTION	PAGE
I	Introduction	1
II	Background.....	2
III	Purpose and Need	3
IV	Proposed Federal Agency Actions and Approvals	6
V	Alternatives	6
VI	Alternatives Analysis and Conclusion.....	8
VII	Environmental Consequences	9
VIII	Mitigation	20
IX	Agency Preferred Alternative	22
X	Environmentally Preferred Alternative	22
XI	Agency Findings.....	23
XII	Decision and Orders.....	24
	Figure 1: Airport Layout Plan of Proposed FLG Improvements.....	5

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**FINDING OF NO SIGNIFICANT IMPACT AND
RECORD OF DECISION**

Proposed 1,801 foot extension to Runway 3/21 and the
Parallel Taxiway System and other associated improvements

FLAGSTAFF PULLIAM AIRPORT
Flagstaff, Coconino County, Arizona

I. INTRODUCTION

This document serves as a Finding of No Significant Impact (FONSI) and Record of Decision (ROD) for the Federal Aviation Administration's (FAA) proposed federal action of unconditional approval of the portion of the Airport Layout Plan (ALP) that depicts a 1,801-foot extension for Runway 3/21 and Taxiway A (Proposed Action). The Proposed Action will result in the relocation of the existing airport service road, and other associated improvements for Flagstaff Pulliam Airport (FLG), located in Flagstaff, Arizona. The airport is owned and operated by the City of Flagstaff, Arizona.

The City of Flagstaff's proposal (the Proposed Action) is to extend Runway 3/21 and Taxiway A 1,801 - feet to the east of their present location, and to extend runway and taxiway lighting, as well as the relocation of the existing on-airport service road. The proposed runway does not meet the definition for a "major runway extension" as described in paragraph 9 (l) of *FAA Order 5050.4B, "National Environmental Policy Act (NEPA) Implementing instructions for Airport Actions."* The proposal includes the acquisition of 85 acres of land contained within the expanded aviation easement area northeast of the airport. Acquisition of this land will allow the airport to have positive control over the Runway Safety Area (RSA) and Runway Protection Zone (RPZ) for Runway 3/21 to ensure the airport meets FAA Airport Design Standards. The land is part of a land exchange between the United States Forest Service and Yavapai Ranch. Details of the exchange are outlined within the *Northern Arizona Land Exchange and Verde River Basin Partnership Act of 2005* passed in November 2005. The extended runway is proposed to be constructed to provide a safe operating environment consistent with current FAA design standards for the range of general aviation and commercial service aircraft currently using the facility. The proposed runway extension will allow the airport to better accommodate general aviation business jets as well as commercial service regional jets in the near term as well as over the long term planning period. The 1801-foot extension will permit business jet to take off more fully loaded with passengers and fuel on warm summer days, and allow commercial flights to destinations beyond the existing limited service to Phoenix.

In accordance with Title 40, Code of Federal Regulation (CFR) § 1501.3 of the President's Council on Environmental Quality Regulations (CEQ), implementing federal regulations for the National Environmental Policy Act (NEPA) of 1969, the FAA supervised preparation of a Final Environmental Assessment (Final EA), dated June 2006. The EA was prepared in accordance with the requirements of NEPA as defined in FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*.

The analysis of the various environmental categories required by FAA Order 1050.1E revealed that the proposed runway and taxiway extension project would not exceed the federal thresholds of significance and will not significantly affect the quality of the human environment. Therefore, considering the various consultation and document coordination efforts on the part of the FAA and the airport sponsor, the type and extent of the comments received from all parties including federal, state, and local governmental agencies, groups and interested citizens, and the analysis of impacts presented in the Final EA, the FAA determined that the appropriate level of federal environmental disclosure action for this project is an EA.

This FONSI and ROD will describe the purpose and need of the project, actions to be taken by the FAA, alternatives examined in the Final EA, environmental effects of the preferred alternative, committed mitigation, and the FAA's decision. The nature and extent of the FAA's decision is clearly stated in this FONSI/ROD, which is a decision document.

II. Background

FLG is located in North Central Arizona. FLG is a commercial service aviation airport on 795 acres on the southwest side of the city on Highway 17. FLG is owned and run by the City of Flagstaff. An update to the airport's Master Plan was completed in 2005. Among other things, the Master Plan identified the need to improve the airport facilities by extending Runway 3/21 to serve existing and future aircraft at Flagstaff Pulliam Airport. The airport's current scheduled service is solely provided by Mesa Airlines (operating as America West) using 37 seat DeHavilland Dash 8 turboprop aircraft and the 19-seat Beach 1900. The airline has been increasing its fleet with the Canadair Regional Jet 200 (CRJ-200). The proposed extension will accommodate general aviation business jets and commercial service using regional jet aircraft. The scoping period for this Environmental Assessment began in January 2004.

Comments received raised issues about potential impacts of the proposed runway extension on units of the National Park System in the vicinity of the Grand Canyon. Based on National Park Service (NPS) concerns at FLG and St. George, Utah, the FAA recommended that the City of Flagstaff conduct a Supplemental Noise Analysis for inclusion into the Draft EA. On July 20, 2005, the Draft EA was made available for review. On August 18, 2005, a Public Information Workshop and Public Hearing were held regarding the Draft EA. The public comment period on the Draft EA closed on August 25, 2005. Comments received on the Draft EA resulted in the FAA reviewing the Supplemental Noise Analysis as it applied to potential noise impacts on National Park Units. Subsequently, FAA directed the City to amend its Draft EA to include the new Supplemental Noise Analysis information. The Amended Draft EA was made available for public review on December 11, 2005. On January 18, 2006, the City held a second public hearing on the Amended Draft EA. In an effort to ensure public participation, the sponsor filed public notice on March 13, 2006 to extend the comment period on the Amended EA to April 24, 2006.

III. Purpose and Need

Section 1.3 of the Final EA outlines the purpose and need for the proposed airport improvements at Flagstaff Pulliam Airport. The City of Flagstaff is proposing improvements to Flagstaff Pulliam Airport to meet the needs of both existing and anticipated future users of the airport. The airport serves over 2,100 business jet operations annually, yet the existing 6,999-foot runway length does not meet the requirements for the 75 percent family of business jets operating at 60 percent useful load on hot summer days. Small piston powered aircraft weighing less than 12,500 pounds can also be restricted from operating at the mean maximum daily temperature due to the available runway length. Section 1.3.2.3 of the Final EA states the performance of many piston-powered aircraft is significantly affected at higher elevations, thus requiring additional runway length. In addition, the existing runway length is not adequate for the airport to accommodate daily scheduled flights by regional jets. Section 1.3.2.3 of the Final EA states that most regional jets have been found to require significantly more runway length at higher elevation airports such as Flagstaff Pulliam Airport due in part to density altitude. Regional Jet service may become imperative for the airport to maintain and improve upon its current level of commercial airline service. At the present time, scheduled commercial service flights at Flagstaff Pulliam Airport use turboprop aircraft. These include the 37 seat Dehaviland Dash 8 and the 19 seat Beech 1900. All scheduled service flights are to Phoenix Sky Harbor International Airport. Other potential future destinations from Flagstaff Pulliam Airport include Las Vegas, Denver, Los Angeles, Salt Lake City, and San Francisco / Oakland.

Based upon these evaluations, a runway length of 8,800 feet will best meet the needs of Flagstaff Pulliam Airport's commercial and general aviation users both in the near term as well as over the long term planning period. The various components of the proposed airport development (Proposed Action) are:

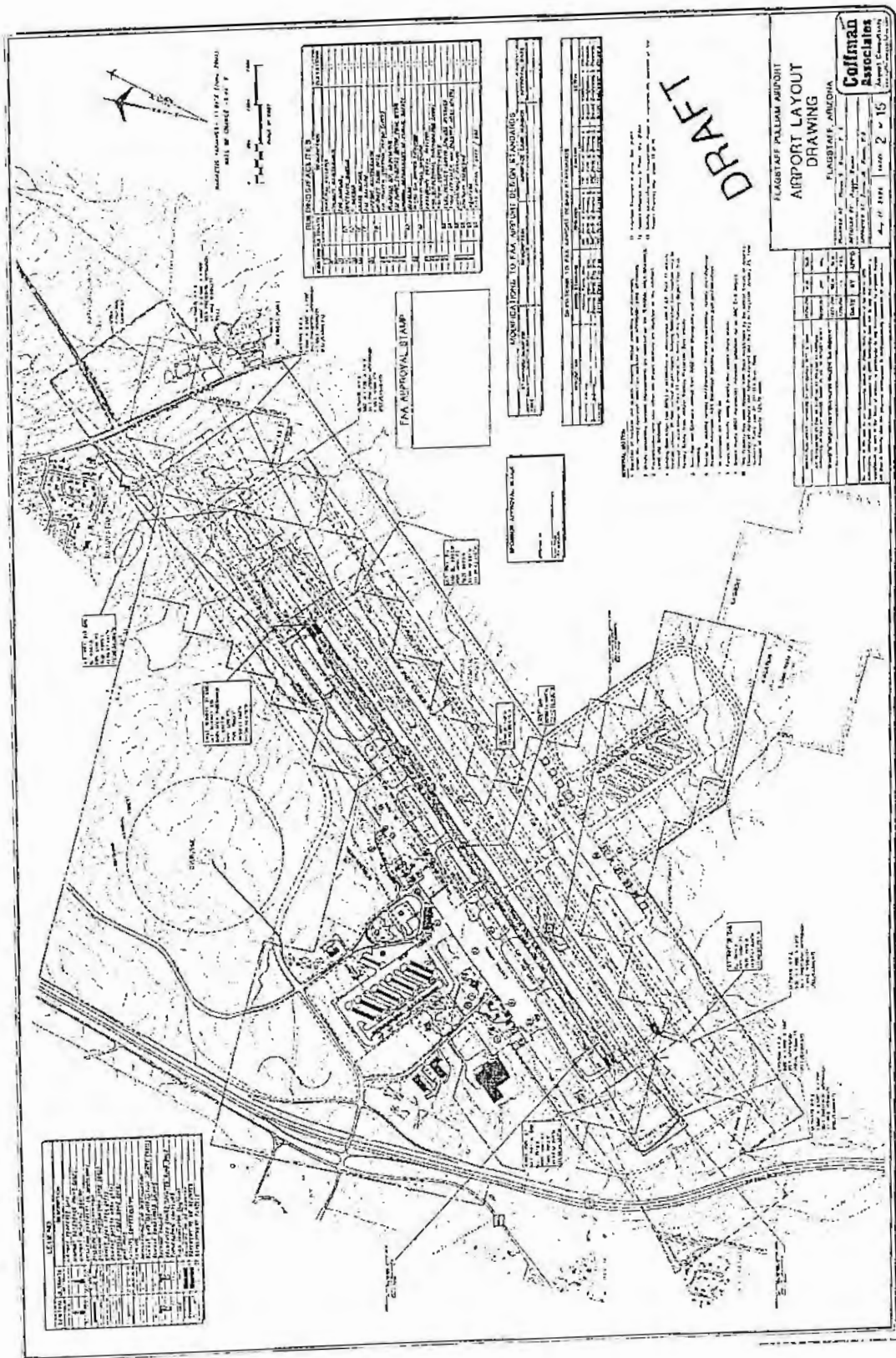
- Acquisition of approximately 85 acres of land to accommodate the Runway Safety Area and Runway Protection Zone for the proposed runway/taxiway extension.
- Site preparation, grading and drainage to accommodate a 1,801-foot northerly extension of Runway 3/21 from 6,999 feet to 8,800 feet long by 150 feet wide including the parallel taxiway system.
- Paving, lighting, and marking of the 1,801-foot northerly extension of Runway 3/21 from 6,999 feet to 8,800 feet long by 150 feet wide including the parallel taxiway system.
- Relocation of existing Approach Lighting System.
- Relocation of the existing on-airport service road.

Existing facilities at Flagstaff Pulliam Airport include one asphalt-paved runway oriented northeast to the southwest, aircraft parking, aprons and taxiways. The existing and future Airport Reference Code for Flagstaff Pulliam Airport is C-II. Runway 3/21 is 150 feet wide, 6,999 feet long with pavement strength of 30,000 pounds Single - Wheel Loading (SWL). The airport elevation at Flagstaff Pulliam Airport is 7,014 feet above mean sea level (MSL). For runway length calculations, the mean maximum daily temperature also referred to, as the design temperature that occurs in July in Flagstaff according to the National Weather Service is 81.9 degrees Fahrenheit (F).

The purpose of the Proposed Action is two fold. First the improvements will allow the airport to adequately fulfill its current and future role in the national and state aviation systems. On the National level, the FAA lists Flagstaff Pulliam Airport in the current National Plan of Integrated Airport Systems 2006-2009 (NPIAS) as a primary commercial service airport. Within the Arizona State Airport System, Flagstaff Pulliam Airport is also classified as a primary commercial service airport. Due to current needs in the general aviation community (particularly business jets), and in anticipation of changes in the commercial service fleet mix planned to serve the airport, Section 1.3.2.1 of the Final EA indicates the existing airfield facilities are inadequate to meet the role set forth for Flagstaff Pulliam Airport in the federal and state aviation system plans. Flagstaff Pulliam Airport's designation as a primary commercial service airport translates to the airport's level of importance within the national aviation system. Forecast and facility requirements contained within the NPIAS assume that the airport will continue to fulfill its role within the national aviation system through being capable of allowing air carriers to provide commercial air service to the northern portions of the State of Arizona as well as accommodate local general aviation needs. The proposed runway extension will allow the airport to continue to fulfill its role in the National and State Aviation Systems through enhancing the airports capability to accommodate general aviation business jets, as well as commercial service regional jets. Secondly, Section 1.3.2.3 of the Final EA indicates the airfield does not meet the operational requirements of the critical aircraft, business jets currently using the facility. A general aviation runway length analysis conducted by the airport indicates that the current runway is not sufficient for existing general aviation needs. In addition, the existing runway length is not adequate for the airport to accommodate daily scheduled flights by regional jets. With the commuter airline service becoming dominated by regional jets, a longer runway is needed. According to Section 1.3.2.3 of the Final EA, other cities that could be served using commercial service regional jets from Flagstaff Pulliam Airport that cannot be served now, include Salt Lake City, Las Vegas, Denver, Los Angeles, and San Francisco.

Figure 1 depicts the proposed action on the Airport Layout Plan of Proposed FLG Improvements.

FIGURE 1: AIRPORT LAYOUT PLAN FOR PROPOSED FLG IMPROVEMENTS.



IV. PROPOSED FEDERAL AGENCY ACTIONS AND APPROVALS

The Federal actions that are the subject of this FONSI/ROD include the following:

1. Unconditional approval of the portion of the Airport Layout Plan (ALP) that depicts the proposed runway and taxiway extensions pursuant to 49 U.S.C. Section 40103(b), 44718 and 47107(a)(16) and 14 CFR Part 77. The ALP depicting the proposed improvements has been processed by the FAA to determine conformance with FAA design criteria and implications for federal grant agreements (refer to 14 CFR Part 77 and 157). FAA has determined that the Proposed Project, as described in Section III above, is consistent with existing airspace utilization and procedures. The ALP was evaluated under airspace case number 2002-AWP-3154-NRA.
2. Determine under 49 U.S.C. § 44502(b), that the airport development is reasonably necessary for use in air commerce or in the interests of national defense.
3. Continued close coordination with the City of Flagstaff and appropriate FAA program offices, as required, to maintain aviation and airfield safety during construction pursuant to 49 U.S.C. § 44706.
4. Relocation of the Approach Lighting System to accommodate the proposed extension.
5. Extension of Runway 3/21 and associated runway safety area to meet FAA Airport Design Standards (14 CFR 139.309).
6. Extension of runway and taxiway lighting as well as the relocation of the existing airport service road.
7. Approval of modification to Airport Certification Manual. (14 CFR Part 139).

All items discussed in Section 1.1.1, and illustrated on Exhibit 1B in the Final EA, are expected to be developed within the next five years (2006-2011). The FAA has federal oversight for the implementation of the proposed Airport Master Plan Update near-term project improvements.

V. ALTERNATIVES

The Final EA contains a thorough and objective review of a range of reasonable alternatives to the City's proposed project at FLG in accordance with CEQ regulations (40 CFR § 1502.14). FAA then evaluated in detail all reasonable alternatives and alternatives that were practical or feasible from the technical and economic standpoint. In reviewing alternatives, the FAA considered all pertinent factors including the environmental impact as well as the FAA statutory charter in 49 USC § 40101 et seq. The FAA identified a total of seven alternatives, four on-airport and two off-airport alternatives and the No Action alternative. The full ranges of alternatives were scaled down by the Flagstaff Pulliam Airport to one that meets the cities and the FAA's purpose and need. Alternatives A and B warrant further consideration, and the alternatives that were rejected were eliminated from further discussion.

Title 40, Code of Federal Regulations Part 1502.14(d) requires that a range of alternatives be evaluated in the EA. The range of alternatives includes all reasonable alternatives, which must be rigorously explored and objectively evaluated, as well as other alternatives, which are eliminated from detailed study with a brief discussion of the reasons for eliminating them. The range of alternatives considered includes: Alternative A – Extend Runway 3/21, 1,801 feet to the northeast, Alternative B – No Action, Alternative C – Extend Runway 3/21, 1,801 feet to the southwest, Alternative D – Extend Runway 3/21, 1,600 feet to the northeast and 200-feet to the southwest, Alternative E – Extend Runway 3/21, 1,200-feet to the northeast and 600-feet to the southwest, Alternative F – Upgrade Alternate Airport, Alternative G – Construct New Airport. For this analysis, each alternative was evaluated for its ability to meet the runway length needs of the existing business jet fleet that already utilizes Flagstaff Pulliam Airport as well as commercial regional jets in the future. The results of the alternative analysis determined which alternatives would be considered reasonable and practicable thereby warranting further consideration.

ALTERNATIVES UNDER CONSIDERATION: Section 2.1 of the Final EA presents two alternatives to be carried forward for further consideration described below. They are also evaluated in Section VI of this FONSI/ROD, Alternatives Analysis and Conclusion.

ALTERNATIVE A: - EXTEND RUNWAY 3/21 1,801-FEET TO THE NORTHEAST. (PROPOSED ACTION): Under this alternative, the runway is extended to accommodate both the CRJ-200 as well as the business jet fleet, which currently utilizes the airport. The Proposed Action alternative includes a 1,801-foot extension of Runway 3/21 and its associated parallel taxiway system, Taxiway A to the northeast, thereby providing total runway length of 8,800 feet. The associated high intensity runway lighting (HIRL) and medium intensity taxiway lighting (MITL) would also be extended. The airport's medium intensity approach lighting system with runway alignment indicator lights (MALSR) would be placed within the pavement of the displaced runway threshold.

ALTERNATIVE B: - NO ACTION ALTERNATIVE: For the purposes of 40 CFR § 1502.14(d), this alternative is identified as the No Action alternative. This regulation requires an analysis of this alternative that would result in the Proposed Action not occurring. Implementation of the No Action alternative would mean the airport would continue to not meet the design standards for Airplane Design Group (ADG) C-II aircraft currently using the airport. The No Action alternative was retained in the Final EA for consideration pursuant to 40 CFR 1502.14.

ALTERNATIVES CONSIDERED BUT REJECTED: Section 2.2 of the Final EA presents five alternatives other than Alternative A the Proposed Action, and Alternative B the No Action alternative that were evaluated, and not given further consideration. These alternatives are described below and their reasons for elimination are presented in Section VI of this document, Alternatives Analysis and Conclusion.

ALTERNATIVE C: - EXTEND RUNWAY 3/21, 1,801 FEET TO THE SOUTHWEST: Alternative C places the full extension on the southwest end of the runway. The advantage of this alternative over the Proposed Action would be the use of the entire 8,800-foot runway length for both takeoffs and landings. A 1,801-foot extension to the southwest would place the runway at the edge of the Interstate 17 right-of-way. In addition, the extension would place the end of the runway closer to residences located to the southwest.

ALTERNATIVE D: - EXTEND RUNWAY 3/21, 1,600 FEET TO THE NORTHEAST AND 200-FEET TO THE SOUTHWEST: Alternatives D uses a combination of shorter

extensions on both ends of the runway. As with the full southwest extension, Alternative D places the runway end closer to the residences located southwest of the airport.

ALTERNATIVE E: - EXTEND RUNWAY 3/21, 1,200-FEET TO THE NORTHEAST AND 600-FEET TO THE SOUTHWEST: Alternative E was considered because it provides the maximum southwest extension that does not affect Interstate 17.

ALTERNATIVE F: – UPGRADE ALTERNATE AIRPORT: Alternative F presents an alternative to developing the proposed improvements at Flagstaff Pulliam Airport by upgrading another airport in the immediate area.

ALTERNATIVE G: - CONSTRUCT NEW AIRPORT: Alternative G proposes construction of a new airport. A new airport would result in the duplication of investment in airport facilities and supporting access and infrastructure that are already available at the existing airport site

VI. ALTERNATIVES ANALYSIS AND CONCLUSION

The proposed alternative is more effective and efficient in meeting the FAA's Purpose and Need than the other alternatives considered. The proposed runway extension 1,801 feet to the northeast would result in no significant adverse impacts. Therefore, the FAA, in this FONSI/ROD, has determined that Alternative A is the FAA's preferred alternative. This alternative would meet the FAA airport design standards at Flagstaff Pulliam Airport and accommodate current activity levels. Implementation of the No Action alternative would mean the airport would essentially remain in its present condition; therefore additional runway length would not be provided, and the airports ability to maintain and improve upon its current level of service would be jeopardized. Section 1.3.2.3 of the Final EA describes the runway length requirements for Flagstaff Pulliam Airport. At higher elevation airports such as FLG, it is stated in the Final EA that most regional jets require significantly more runway length. The runway length analysis demonstrates the impact elevation of the airport, air temperature, gradient of the runway and the operating weight of the aircraft has on the operating requirement of a given aircraft type. Table 1E of the Final EA provides airport and runway data, and runway length recommended for airport design that indicates the current runway length at FLG is not sufficient for existing aviation needs.

The No Action alternative was retained in the EA for consideration pursuant to 40 CFR 1502.14. The No Action Alternative does not meet the purpose and need of having the airport meet FAA Airport Design Standards. The advantage of Alternative C over the Proposed Action would be the use of the entire 8,800-foot runway length for both takeoffs and landings. A 1,801-foot extension to the southwest would place the runway at the edge of the Interstate 17 right-of- way.

In addition, the extension would place the end of the runway closer to residences located to the southwest. Alternatives C, D and E are not reasonable to implement due to increased environmental and social impacts to noise sensitive land uses in town. The city of Flagstaff does not own or operate any other airports in the area. Sedona Airport is the closest at 22 nautical miles, and is a general aviation airport with no provisions for certificated passenger service. Section 2.2.2.1 of the Final EA state the airport would require even greater upgrades at a significantly higher cost. Therefore, Alternative F does not meet the purpose and need for the project, as it does not provide for an easy transition of activity to an alternate airport. A new airport would result in the duplication of investment in airport facilities and supporting access and infrastructure that are already available at the existing airport site. Therefore, as described in Section 2.2.2.2

of the Final EA, Alternative G was determined to result in significantly greater environmental impacts than any of the on-airport development alternatives.

VII. ENVIRONMENTAL CONSEQUENCES

The impacts of the seven development Alternatives are summarized below. Detailed discussions for each environmental impact category are contained in the Final EA. In this FONSI/ROD, each environmental impact category studied is listed with a brief discussion of the results of the impact analysis, and, if necessary, any mitigation measures. Those action or measures to avoid or minimize environmental harm that are practicable to implement are summarized in each environmental impact category, as appropriate. The Final EA included analysis and review of the Proposed Action and the No Action alternatives. The Final EA has satisfied FAA guidelines identified in FAA Orders 1050.1E and 5050.4B for the preparation of an environmental assessment.

The Final EA examined the following environmental impact categories: Noise; Compatible Land Use; Environmental Justice; Socioeconomic Impacts; Air and Water Quality; Department of Transportation Act Section 4(f) Land; Historical, Architectural, and Cultural Resources; Biotic Communities; Wetlands; Floodplains; Coastal Resources; Coastal Barriers; Wild and Scenic Rivers; Farmland; Energy Supply and Natural Resources; Light Emissions; Solid Waste Impact; Construction Impacts and Cumulative Impacts.

A. AIR QUALITY: Section 4.6 of the Final EA discusses air quality impacts. Communication received from the Arizona Department of Environmental Quality (ADEQ), Air Quality Division (See Appendix B of the Final EA), indicates that the project is located in a designated attainment area for air quality as the area currently meets federal and state health standards for air pollution levels, including air particulates. Consequently, there are no State Implementation Plan (SIP) requirements or specific control measures with respect to ambient air quality in the Flagstaff area. According to Section 4.6.5 of the Final EA, the implementation of the recommended mitigation measures discussed in Section 4.19, *Construction*, will aid in the Airport not adversely impacting the air quality attainment levels with implementation of the proposed action. Therefore the Proposed Action alternative will result in no adverse air quality impacts.

In order to document the impact of the Proposed Action on air quality, an emissions inventory was completed. Based on the evaluation contained in Table 4K of the Final EA, the forecasted net emissions of the proposed project are below the threshold emission rates. Therefore the emissions are not regionally significant. Although a General Conformity Determination (GCD) is not required for the project because it is located in an attainment area, the results of the emissions inventory was compared with *de minimis* emission levels established in the general conformity regulations, 40 CFR § 91.153 pursuant to Section 176(c) of the Clean Air Act Amendments of 1990. Therefore, the emissions are considered *de minimis* and the project is presumed to conform. The No Action alternative will result in no significant air quality impacts, as the airport will continue to operate in a manner similar to what it does today.

B. COASTAL ZONE MANAGEMENT AND COASTAL BARRIERS: Section 4.13 of the Final EA addresses potential coastal impacts. FLG is located more than 350 miles east of the Pacific Ocean, well outside of any coastal zone. The Proposed Action or No Action alternatives would have no direct or indirect impacts to coastal resources, as none are in the vicinity of the project area. The Coastal Barriers Resources Act refers to underdeveloped coastal barriers along the Atlantic and Gulf Coasts. The Proposed Action and the No Action Alternative do not create an impact to this geographic area.

C. COMPATIBLE LAND USE: Section 4.3 of the Final EA describes the potential Land use surrounding Flagstaff Pulliam Airport consists of a mixture open space, industrial, and residential uses. Areas immediately to the west and south of the airport are managed by the U.S. Forest Service and are currently underdeveloped. As required under 49 USC § 47107(a)(10), the City of Flagstaff's Land Use Assurance letter, is included in the Appendix of the Final EA. As discussed within Section 4.1 of the Final EA implementation of the Proposed Action alternative results in the removal of all currently impacted residences from the 65 DNL noise contour by the year 2011. Therefore, the Proposed Action alternative results in no negative land use impacts. Conversely, implementation of the No Action alternative results in the removal of only one residence from the 65 DNL noise contour. Due to the continued presence of residences within the 2011 65 DNL noise contour, the No Action alternative results in no adverse land use impacts. No mitigation measures are required.

D. CONSTRUCTION IMPACTS: Section 4.19 of the Final EA indicates impacts related to the Proposed Action Alternative would be associated with construction of the proposed development. Temporary environmental impacts may occur as a result of construction activities. These impacts would primarily relate to noise resulting from heavy construction equipment, fugitive dust emissions, and potential impacts on water quality from runoff and soil erosion from exposed surfaces. The No Action alternative will result in no impacts, as no construction will occur with project implementation. Section 4.19 of the Final EA states the project design and construction of the proposed action alternative will incorporate Best Management Practices (BMPs) to protect the quality of the natural resources and minimize environmental impacts. Mitigation measures during construction are a condition of approval and are outlined in Section 4.19.3 of the Final EA and in Section VIII of this document.

E. DEPARTMENT OF TRANSPORTATION (DOT) ACT OF 1966, SECTION 4(f), as amended and U.S. DEPARTMENT OF INTERIOR LAND AND WATER CONSERVATION FUND ACT OF 1965, SECTION 6(f): To determine potential impacts on Section 4(f) protected park resources, consultation with the City of Flagstaff and the National Park Service was undertaken. Section 4.11 of the Final EA indicated that the proposed project would not result in direct or indirect uses of protected park resources, which include publicly owned parks, recreation areas, or wildlife and waterfowl refuges of national, state or local significance. No direct acquisition of real property from existing protected parklands would be required. In addition, the Proposed Project would not substantially impair protected park resources in the vicinity of the airport.

In response to the National Park Service's concerns regarding the cumulative impact of the proposed airport improvement on various National Park units, the Supplemental Noise Analysis contained within Section 4.2 of the Final EA was undertaken. The results of this analysis indicated that the park units would not likely be substantially impaired. The Proposed Action project will not have a direct or constructive use of properties protected by DOT Section 4(f). The No Action alternative would not result in impacts to Section 4(f) properties since the project would not occur.

F. FARMLAND: In Section 4.15 of the Final EA, communication received from the National Resources Conservation Service (NRCS) indicated that the land surrounding the airport is already in or committed to urban development, used as water storage, or land that is not prime or unique farmland. A copy of the NRCS letter is included within Appendix B of the EA. As airport development projects are exempt from the requirements of the Farmland Protection Policy Act (FPPA), indirect impacts to this resource category are not expected to occur as a result of the Proposed Action.

G. FISH, WILDLIFE AND PLANTS: Section 4.12 of the Final EA addresses the potential impacts of the Proposed Action and the No Action Alternative on Fish, Wildlife and Plants. As part of the EA, the FAA consulted with the U.S. Fish and Wildlife Service (USFWS) and the Arizona Game and Fish Department (AGFD) for information regarding potential impacts to wildlife, plants and native habitat as a result of the Proposed Action. These agencies provided a list of protected species for Coconino County. To further define the existing environmental condition, two surveys were completed: a Biological Assessment (BA) for federally listed threatened or endangered species of flora or fauna within the proposed area and a Noxious Weed Assessment. Within the BA and noxious weed assessments, the potential impact of the Proposed Action alternative was assessed. The BA concluded the following. The Flagstaff Pennyroyal populations were identified in areas that would not be disturbed by construction of the proposed airport. The Bald Eagle and the Mexican Spotted Owl may be affected, but will not be adversely affected by the Proposed Action. This determination was made based on factors that are outlined in detail on pages 12 and 13 of the BA contained in Appendix F. Through coordination with the USFWS, the FAA determined that implementation of the Proposed Action alternative will result not adversely impact protected species. In addition with the mitigation measures discussed within the BA, no adverse impacts associated with the propagation of noxious weeds are expected to occur as a result of the Proposed Action.

No construction will occur with implementation of the No Action alternative; therefore, no impacts to biological resources are anticipated.

H. FLOODPLAINS: Section 4.9 of the Final EA states no direct or indirect impacts to flood plain resources would be experienced with implementation of the Proposed Action or No Action alternatives. The project area does not contain any designated 100 or 500 year floodplains. Therefore, no mitigation measures are required.

I. HAZARDOUS MATERIALS AND SOLID WASTE: No known hazardous materials are located on site other than those used for typical operation of the airport, including aircraft fuel and maintenance materials. Construction of the Proposed Action alternative will result in some earthwork disturbances; however, based on research conducted by Environmental Data Resources, Inc. (EDR), it is unlikely that earthwork will expose or uncover any buried hazardous materials. A copy of the EDR report is contained in Appendix E, of the EA. Development of the Proposed Action alternative is anticipated to result in no adverse impacts to hazardous materials, or solid waste. Obtaining and modifying necessary permits for operation of the airport and construction of the proposed improvements will help to ensure that in the event there are any potential impacts, they are properly mitigated. The No Action alternative is not expected have any impacts on hazardous materials or solid waste since the proposed project will not occur.

J. HISTORIC, ARCHITECTURAL, ARCHAEOLOGICAL AND CULTURAL RESOURCES: Section 4.10 of the Final EA describes the potential impacts on archaeological and historic properties. Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended and its implementing regulations (36 CFR Part 800), FAA consulted with the Arizona State Historic Preservation Officer (SHPO) on the Proposed Action. In accordance with Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, FAA coordinated with the Hopi Tribal Historic Preservation Officer (THPO) at the onset of the project. Based on the survey findings, the FAA determined that the construction and operation of the proposed project alternative would not affect any historic properties listed or eligible for listing, on the National Register of Historic Places (NHRP). The SHPO concurred with FAA's findings in a letter dated August 3, 2004. A copy of this letter is contained within Appendix B of

the Final EA. Tribal coordination was undertaken at the onset of the project, as well as at the conclusion of the cultural resources surveys to identify any concerns related to potential impacts to tribal resources. The Hopi Tribe submitted a written response, and none of the Native American tribes indicated concerns regarding impacts to tribal resources. Copies of the letters sent to and received from the tribes are contained within Appendix B of the Final EA.

Both the SHPO and Hopi Tribe indicated that if any cultural features or deposits are encountered during construction, all construction activities in the vicinity of the project would cease until a determination can be made as to its significance. FAA has determined the proposed undertaking and the No Action Alternative will not affect any properties listed or eligible for listing on the National Register of Historic Places.

Area of Potential Effect (APE). The APE consists of three parcels of land adjacent to the current airport. Area 1 is comprised of 88 acres located northeast of the existing Runway 3/21. A 1,800-foot extension will be added to the runway in this area. The APE in Area 1 generally corresponds to the area impacted by pavement construction plus a proposed increase in the Runway Protection Zone (RPZ) for this project. Changes in Area 1 will also include modification and relocation of the approach lighting, and relocation of the airport access road from Lake Mary Road. Construction in Area 1 will require a cut of 225,000 cubic yards, the addition of 1,000,000 cubic yards of fill, and mechanical grading and leveling. Area 2 consists of 11 acres southwest of the existing runway, corresponding to a proposed increase in the RPZ, and will be graded and cleared for an extended Runway Safety Area. There will also be an acquisition of an aerial easement area within the Coconino National Forest. Area 3 is a 180-acre parcel located southeast of the current runway. Area 3 is located within the Future Eastside Aviation Development Area and will be used as a borrow source for the additional 775,000 cubic yards of fill required for Area 1. Altogether, the APE consists of 279 acres. Extending the runway and taxiway will not involve any substantial changes to the type or intensity of lights currently employed at the airport. Therefore, the proposed undertaking at Flagstaff Pulliam Airport will not result in any visual effects.

No significant impact to cultural or historic resources would likely occur with implementation of the No Action alternative as no construction would occur.

K. LIGHT EMISSIONS: Section 4.17 of the Final EA describes the potential impacts on light emissions. Section 4.17.1 of the Final EA addresses the measures the city has established to prevent the creation of light emissions that would diminish the night sky and astronomical activities at various observatories around the city. Implementation of the Proposed Action Alternative or No Action Alternative will not result in significant impacts to lighting or visual resources. There is currently a vegetative buffer between the airport and residential land uses. This vegetative buffer would remain after alternative implementation.

L. NATURAL RESOURCES AND ENERGY SUPPLY: Section 4.16 of the Final EA discusses the resource utilization and energy supply associated with the Proposed Project. Implementation of the Proposed Action alternative would result in increased aircraft fuel usage when compared to the No Action alternative. However, as the airport begins service to additional markets, and improves service to Phoenix Sky Harbor International Airport, the number of vehicle trips to Phoenix could decrease, thereby partially offsetting the increased aircraft fuel usage. There are no known sources of mineral or energy resources in the project area that would be adversely affected by the Proposed Action Alternative.

There are no adverse impacts to energy supply and natural resources are anticipated with implementation of either alternative.

M. NOISE: Section 4.1.4.1 and 4.1.4.2 of the Final EA analyzes the noise impacts of the Proposed Action and No Action alternatives. In accordance with FAA Orders 1050.1.E and 5050.4B, the anticipated noise condition for both of the alternatives has been developed for the anticipated year of project implementation (2006) and five years from the implementation date (2011). Section 4.1.1.2 of the Final EA indicates that from the time the environmental assessment was started in 2003, the City of Flagstaff expected to have the runway extension completed by 2006. As a result 2006 and 2011 were chosen as appropriate time frames for analysis.

The 65 *Yearly Day – Night Average Sound Level (DNL)* noise contour for the Proposed Action alternative in 2006 extends southwest approximately 3,000 feet from the end of the Runway. To the northeast, the contour remains within the proposed acquisition area and extends approximately 600 feet off the end of extended Runway 21. The 70 and 75 DNL noise contours are contained within the airport's aviation easements. Two dwelling units are contained within the 2006 Proposed Action noise contour. Indirect noise impacts primarily relate to those that occur during construction of the proposed airport improvements. These impacts are discussed further in the Final EA in Section 4.18.

The 2011 proposed project noise contours are smaller than those prepared for 2006. The 65 DNL noise contour extends southwest approximately 2,700 feet from the end of Runway 3. To the northeast, the contour remains within the proposed property acquisition area and extends approximately 600 feet off the end of extended Runway 21. The 70 and 75 DNL noise contours are contained within the airport's aviation easements. No dwelling units are contained within the 2011 Proposed Action 65 DNL noise contour.

The No Action 2006 noise contours are shaped differently than the Proposed Action alternative due not only to the runway extension, but also the change in the commercial service fleet mix. The 65 DNL noise contour extends approximately 4,000 feet from the end of Runway 3 to the southwest and approximately 2,200 feet from the end of Runway 21 to the northeast. The 70 DNL noise contour extends approximately 1900 feet from the end of Runway 3 to the southwest. The contour remains on airport property to the northeast. The 75 DNL noise contour is contained entirely on airport property. Fourteen dwelling units are contained within the 2006 No Action 65 DNL noise contour. These dwelling units consist of single-family homes and are located southwest of the airport.

The 2011 No Action noise contours are smaller than the 2006 No Action noise contours. The 65 DNL noise contour extends approximately 3,700 feet from the end of Runway 3 to the southwest and approximately 2,100 feet from the end of Runway 21 to the northeast. The 70 DNL noise contour extends 1,700 feet from the end of Runway 3 to the southwest. The contour remains on airport property to the northeast. The 75 DNL noise contour is contained entirely on airport property.

The 1,800-foot runway extension to the northeast, proposed as part of the Proposed Action alternative, allows aircraft more distance to gain altitude before leaving airport property, thereby resulting in fewer noise impacts when compared to the No Action alternative. As indicated in Table 4C, of the Draft EA, implementation of the Proposed Action alternative reduces the number of dwelling units in the 65 DNL noise contour under both the 2006 and 2011 modeling scenarios. Twelve residences are removed from the 65 DNL noise contour in 2006 under the Proposed Action and 13 are removed

implementation of the Proposed Action. In Summary, based on the analysis contained within Section 4.1.1.1 of the Final EA with implementation of the Proposed Action, 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 decreases significantly with the implementation of the Proposed Action alternative; therefore, no significant noise impacts would result with the implementation of the Proposed Action alternative.

Given the land uses around the airport, noise impacts for both the No Action and Proposed Action are not considered significant.

Supplemental Noise Analysis: FAA Order 1050.1E, Appendix A, Section 14.5, allows for the preparation of supplemental noise analyses for select projects. These analyses are prepared at the direction of the FAA and are tailored to enhance understanding of the pertinent facts surrounding the potential environmental changes, which could result with implementation of the proposed project. The standard methodology for evaluating noise at or around airports involved the use of the FAA approved Integrated Noise Model (INM) for use in Environmental Assessments. The INM model describes aircraft noise in the *Yearly Day – Night Average Sound Level* (DNL). Supplemental noise analyses allow for the use of additional noise descriptors other than the DNL descriptor discussed previously in Section 4.1 of the Final EA. The supplemental descriptors discussed within Order 1050.1E included in this study are:

Single event loudness: L_{max} (maximum sound level), a single event descriptor that is the highest A-weighted sound level, on the basis of an average annual day, measured the sound event over a 24-hour period.

Cumulative sound energy: Leq (equivalent sound level), a cumulative level of a steady tone that provides an equivalent amount of sound energy for any specific period.

Time that aircraft can be heard: TAA (time above ambient), a time-based descriptor that gives the duration, in minutes, for which aircraft-related noise exceeds the average ambient sound level or other specified A-weighted value in decibels (dB) during a given period.

During the initial scoping process for this EA, which included both resource agencies and public interest groups, a number of comments were received regarding concerns about increased noise over National Park units resulting from the proposed airport improvements. A letter dated September 18, 2003 from the National Park Service (NPS) (included in Appendix B of the Draft EA) indicated concerns regarding the increase in overflights of a number of NPS units ranging from Walnut Canyon, located approximately eight miles from Flagstaff Pulliam Airport, to the Grand Canyon National Park (GCNP), which, at its closest point, is located approximately 55 miles from the airport. As a result of the NPS concerns, as well as the interest of other public groups concerned about noise over the park units, the FAA determined that a supplemental noise analysis was warranted for inclusion into the Final Draft EA.

The supplemental noise analysis focused on quantifying the potential cumulative impact of the proposed airport improvements, principally the introduction of regional jets into the airport's fleet mix (Proposed Action alternative). The remaining fleet mix using the airport would be the same regardless of whether the proposed airport improvements are undertaken. As discussed in Chapter One of the Final EA, introduction of the regional jet could allow the airport to be capable of allowing air carriers to provide commercial air

service to additional markets such as Los Angeles, Salt Lake City, and Denver; therefore, the modeling efforts would include trips to these destinations. For comparative purposes, the future No Action alternative was modeled. The future No Action alternative assumes that additional markets would be introduced to the Flagstaff area. As discussed in Chapter One of the Final EA, the additional potential destinations included Salt Lake City and Denver. For modeling purposes, the Beech 1900 would be utilized in lieu of the regional jet. These fleet mix changes were incorporated into the cumulative overflight fleet mix experienced at the park units.

To best analyze the potential changes on the cumulative impacts of the Proposed Action and No Action alternatives, two tiers of supplemental analysis were developed. These analyses used Cartesian coordinate systems (i.e., grid points) to determine the potential impacts by the proposed airport improvements on NPS units within the two levels of analysis.

The first tier is a cumulative analysis of potential noise changes for those areas where the regional jets or Beech 1900s, departing from Flagstaff Pulliam Airport, would be below an altitude of 10,000 feet above ground level (AGL). The 10,000-foot elevation was selected for several reasons. First, according to paragraph 14.5e of Appendix A of FAA Order 10501E, for airspace actions where the study area is larger than the immediate vicinity of the airport, noise impacts will be determined from the ground to 10,000 feet AGL. Second, the FAA revised Air Traffic Noise Screening (ATNS) policy (January 5, 2001), which was created to address airspace changes that may cause controversy on environmental grounds, uses 10,000 feet as an altitude cut-off when evaluating departure procedures. Finally, the aircraft profile data used for FAA noise modeling have been developed to 10,000 feet.

The second tier analysis was focused on the cumulative impacts of the proposed project, primarily as they relate to the potential impacts of additional overflights of the GCNP. This analysis also focused on the impacts of both the Proposed Action alternative, introduction of the regional jet, and the No Action alternative's use of the Beech 1900. This analysis was conducted over the entire GCNP at five nautical mile increments to determine if there were any changes in cumulative noise exposure.

Section 4.2 of the Final EA contains the Supplemental Noise Analysis that provides an outline of the modeling assumptions used, followed by the results of each tier of analysis. The INM Version 6.1 was used for the supplemental noise analysis. The INM has been the FAA's standard noise modeling tool since 1978 for predicting noise impacts in the vicinity of airports and other areas. For this study, it was determined that utilizing four noise descriptors would be appropriate. L_{max} is beneficial as it provides the peak noise level that an individual may hear during an aircraft overflight, pending the absence of other background noise. TAA was also found to be a potentially suitable descriptor for this analysis as it provides a time-based comparison of the number of minutes the aircraft noise exceeds an ambient sound level during a 24-hour day. Leq (12-hour) and Leq (24-hour) were determined to be suitable versus the 24-hour noise descriptor DNL (which penalizes nighttime aircraft noise events), as the national parks are often only open to the public during daytime hours.

The FAA identified 26 dBA as a reasonable and representative average ambient sound level to apply to the regional Tier One analysis based on available 2000 data for quiet conditions in sparse conifer forest areas near the Grand Canyon National Park (GCNP) and the proximity of GCNP to Flagstaff. It is notable that the Tier Two analysis of GCNP takes advantage of variable ambient sound levels that are specific to GCNP and cover the Tier Two study area. The GCNP variable ambient sound levels are based on

different terrain and vegetation categories (e.g., desert scrub, pinion juniper, coniferous forest, and water-affected areas).

The Supplemental Noise Analysis sections in the Final EA outline the modeling assumptions followed by the results of each tier of analysis. In summary the cumulative noise analysis results demonstrate that 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 the less efficient and noisier turbo-prop aircraft. 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. 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. The analysis findings are not, by themselves, a measure of adverse aircraft noise or significant aircraft noise impacts.

N. SECONDARY (INDUCED) IMPACTS: The Proposed Action will allow the airport to better accommodate general aviation business jets, as well as commercial service regional jets. Section 4.4.4 of the Final EA indicates the introduction of larger corporate aircraft service into the Flagstaff area could induce additional industries into the area. Several major mixed-use communities are planned in the Flagstaff area, which will result in additional employment and revenues associated with the increased populations. This increase will also have an effect on the growth of Flagstaff Pulliam Airport.

Section 4.4.4 of the Final EA indicates there will be positive impacts to employment from the Proposed Action, in part, due to the enhancement of the commercial airline service. Alterations to surface transportation patterns, division or disruption of existing communities or interference with orderly planned development is not anticipated to occur with implementation of the proposed action alternative.

The No Action alternative would result in the airport's potential inability to fulfill its assigned role in the national and state aviation systems.

O. SOCIOECONOMIC, ENVIRONMENTAL JUSTICE AND CHILD HEALTH: Social and Environmental Justice impacts and considerations contained in Executive Order 12898 and the analysis procedures described in DOT Order 5610.2, have been evaluated for this project. Direct socioeconomic impacts resulting from implementation of the Proposed Action alternative are primarily related to potential changes in

employment related to the project. The No Action alternative does not disrupt or socially impact the existing or future community. Implementation of the Proposed Action alternative would likely result in positive socioeconomic benefits to the Flagstaff area due to the enhancement of the commercial airline service. This enhancement would likely result in job creation and potential benefits to the tourism-related business. The No Action alternative could potentially result in temporary negative socioeconomic impacts due to the anticipated transition in the commercial airline provider at the airport. Section 4.4.3.1 of the Final EA indicates the Proposed Action Alternative will not divide or disrupt surface transportation patterns, around the city of Flagstaff.

Areas that would be impacted by the proposed improvements, such as those contained within the 65 DNL noise contour, do not contain a higher percentage of minority or low-income populations than what exist at the city, county, or state levels. Therefore, there is no disproportionately high and adverse impact to minority or low-income populations.

P. WATER RESOURCES: Section 4.7 of the Final EA discusses impacts to water resources. Implementation of the Proposed Action alternative will require a number of permits be obtained to alleviate potential water quality impacts. These permits include an Arizona Pollution Discharge Elimination System (AZPDES) construction permit (discussed further in Section 4.19), a Section 404 permit from the U.S. Army Corps of Engineers (refer to Section 4.8 of the Final EA), and the City of Flagstaff's existing AZPDES operating permit will need to be modified to include the additional impervious surfaces at the airport. It is anticipated that impacts to water quality will be managed through the various permitting processes; as a result the Proposed Action alternative is anticipated to result in no adverse impacts to water quality. The No Action alternative will result in no impacts to water quality, as no construction would occur.

Q. WETLANDS: Section 4.8 of the Final EA discusses impacts to wetlands. An inquiry was made to the U.S. Army Corps of Engineers (COE) as to the jurisdictional limits of Section 404 of the Clean Water Act for the unnamed washes within the Flagstaff Pulliam Airport expansion area. A jurisdictional determination was undertaken for the northeastern portion of airport property in September 2004. A copy of this delineation is included within Appendix G of the EA. The results of this jurisdictional determination are depicted on Exhibit 3E in Chapter Three of the Final EA. There are jurisdictional areas located along, and north east of existing Taxiway A. Implementation of the Proposed Action alternative will result in impacting approximately 2,700 feet of the delineated waters of the U.S. located along, and north of, Taxiway A. The project design will allow for this area to be relocated along the extended Taxiway A; as a result it is not likely the action will have substantial alterations on the hydrology needed to sustain the functions and values of the affected wetland or any wetlands to which it is connected. In addition, the impact would likely not reduce the jurisdictional area's ability to retain floodwaters or storm-associated runoff. Section 4.8.4 of the Final EA indicates that the wetlands along the taxiway do not harbor or support the hazardous movement of wildlife. In addition, the proposed project would have no affect on the fish or wildlife habitat. There would be no adverse affects on the function of a wetland to protect the quality or quantity of municipal water supplies.

Based upon the information provided in Section 4.8 of the Final EA, the Proposed Action Alternative is anticipated to result in no adverse impacts to wetlands or waters of the U.S. The No Action alternative will result in no development activities at the airport, therefore no impacts to wetlands or waters of the U.S. are anticipated.

R. WILD AND SCENIC RIVERS: Section 4.14 of the Final EA discusses impacts to wild and scenic rivers. Only one river in the State of Arizona is designated as wild and scenic. This River, the Verde River is located 45 miles south of Flagstaff Pulliam Airport. Due to the distance from Flagstaff Pulliam Airport to the river segments designated or eligible to be included in the Wild or Scenic River system, impacts to these resources would not occur. The No Action alternative would not impact any wild or scenic rivers.

S. UNAVOIDABLE ADVERSE IMPACT AND IRREVERSIBLE COMMITMENT OF RECOURCES: The proposed action alternative would result in the use of resources and have environmental impacts that are unavoidable. The impacts associated with the proposed improvements are disclosed for specific impact categories in the Final EA. None of the impacts are considered to be adverse or exceed thresholds of significance. Mitigation measures recommended during construction that are a condition of approval are outlined in Section 4.19.3 of the Final EA and in Section VIII of this document. The No Action Alternative would not result in the unavoidable use of resources or environmental impacts.

T. CONSISTENCY WITH PLANS, GOALS AND POLICIES: The Final EA was developed in coordination with various public agencies, and is consistent with development plans for the area. The Proposed Action Alternative would not conflict with the objectives of Federal, regional, state or local land use plans, polices or controls for the city of Flagstaff. The No Action Alternative is not consistent with the plans, goals and policies in that it would not allow the city of Flagstaff to safely and efficiently meet the aviation goals of the airport.

U. DEGREE OF CONTROVERSY: The City of Flagstaff began the scoping period for this Environmental Assessment in January 2004. Comments that were received raised issues about potential impacts of the proposed runway extension on units of the National Park System in the vicinity of the Grand Canyon. Based on National Park Service (NPS) concerns at FLG and St. George, Utah, the FAA recommended to the City of Flagstaff to conduct a Supplemental Noise Analysis for inclusion into the Draft EA. On July 20, 2005 the Draft EA was made available for review. On August 18, 2005, a Public Information Workshop and Public Hearing were held regarding the Draft EA findings. The formal public comment period closed on the Draft EA August 25, 2005. Comments received on the Draft EA resulted in the FAA reviewing the Supplemental Noise Analysis as it applied to potential noise impacts on National Park Units. Subsequently, FAA directed the City to amend its Draft EA to include the new Supplemental Noise Analysis information. The Amended Draft EA was made available for public review on December 11, 2005. On January 18, 2006, the City held a second public hearing on the Amended Draft EA. Comments on the Amended Draft EA were received from members of the public after the second public hearing. The sponsor, in an effort to ensure public participation and to provide additional time for the public to submit comments, filed a public notice on March 13, 2006 to extend the comment period on the Amended EA to April 24, 2006. All comments on the Amended Draft EA during the comment periods are included in the Final EA.

V. MAN'S RELATIONSHIP BETWEEN LOCAL SHORT-TERM OF HIS ENVIRONMENT AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY: The Proposed Action Alternative would require the use of the environment to achieve the short term goals of meeting design standards, and providing a safe operating facility for existing and anticipated future users of the airport. Traffic delays, fugitive dust, and increased emissions form construction vehicles; visual and aesthetic impacts and additional construction noise are probable as a result of the proposed action. These impacts, short term in nature, would be minimized through the establishment of and use

of environmental controls, such as Best Management Practices (BMPs) and Federal and local construction standards. Mitigation measures recommended during construction that are a condition of approval are outlined in Section 4.19.3 of the Final EA and in Section VIII of this document.

W. CUMULATIVE IMPACTS: According to CEQ, cumulative impacts represent the "impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR § 1508.7)."

The Final EA considered, to the extent reasonable and practical, the possible impacts of the Proposed Project alternative and other developments, both on and off the airport that are related in terms of time or proximity.

In Section 3.5 of the Final EA, FAA evaluated past, present and reasonably foreseeable on- and off-airport projects to assess their potential for significant environmental impacts that have been undertaken or are planned to be undertaken in the near-term. These projects include the following:

Completed Projects:

- Runway safety area improvements
- Removal of obstructions to the airport's Part 77 surface

Projects to be undertaken in the near-term:

- Construction of an aircraft rescue and fire fighting (ARFF) building
- Widening of JW Powell and Pulliam Drive
- Connection of JW Powell Drive with Lake Mary Road
- Development of airport perimeter roads
- Construction of the east parallel taxiway system
- Miscellaneous airport improvement projects
- Land exchange between the U.S. Forest Service and the Yavapai Ranch Limited Partnership
- Development of various sections of the Flagstaff Urban Trails System
- Routine road maintenance projects

The proposed airport improvements under the Proposed Action alternative and recently completed airport improvements are consistent with the Flagstaff Pulliam Airport Master Plan. Resources issues that are appropriate for analysis under a cumulative impact assessment are addressed in Section 4.20 of the Final EA. A summary of the analysis of the cumulative overall impacts of the Proposed Action alternative and the No Action alternative is found in Table 4M. The Proposed Action alternative would maintain the airport's competitiveness in the regional air service industry. Due to the lack of proposed runway improvements under the No Action alternative, adverse social impacts are reasonably foreseeable due to the airports probable decline in competitiveness in the regional air service industry. In Section 4.1.5 of the Final EA, under the No Action alternative, noise sensitive development experiences a 1.5 DNL increase in noise when compared to the Proposed Action alternative. Based on the less than significant impact of the proposed preferred alternative and the significant impact on noise sensitive development of the No Action Alternative, the Proposed Action Alternative will not result in a significant cumulative impact to the airport and surrounding communities.

VIII. MITIGATION

REQUIRED MITIGATION MEASURES: In accordance with 40 CFR § 1505.3, the FAA will take appropriate steps, through Federal funding grant assurances and conditions, airport layout plan approvals, and contract plans and specifications, to ensure that the mitigation action is implemented during project development, and will monitor the implementation of these mitigation actions as necessary to assure that representations made in the Final EA with respect to mitigation are carried out. There are approvals contained in this FONSI/ROD that are specifically conditioned upon full implementation of these mitigation measures. The following mandatory mitigation measures are fully described in Chapter Four of the Final EA.

Fish, Wildlife and Plants. The following identifies mandatory mitigation measures recommended for controlling invasive species/noxious weeds. According to the USFS's Noxious Weed Strategic Plan Working Guidelines, Coconino, Kaibab and Prescott National Forests, use of the following BMPs will decrease the spread of the identified invasive species:

- Prior to construction taking place, dig up any bull thistle plants in the construction areas. Dig a hole a minimum of five feet below the 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.
- Wet all soil before scraping or moving it in order to prevent soil containing seeds of noxious weeds from becoming airborne or spread otherwise.
- In areas with Dalmatian toadflax, Mullein and Cheatgrass, vehicles and equipment that are driven through, or parked in, weed-infested areas must be spray-washed each time 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 shown on a 1:24,000 scale map and should be monitored for future weed infestation.
- All construction vehicles and equipment will be washed before coming onto national forest system land as described above.
- When construction is complete, all disturbed areas will be reseeded with a certified weed-free native plant mix.
- 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. Rather, weed-free soil will be used in the top three inches. If material is imported from off-site, the origin site of the fill will be surveyed for noxious weeds. Fill material will not come from a source infested with noxious weeds.
- Water used for dust abatement and other construction activities should be obtained from a source that is free of noxious weeds.
- 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.

Construction Impacts. The following mitigation measures are mandatory conditions of approval of this FONSI/ROD during construction:

Site Preparation

- Minimize land disturbance.
- Use watering trucks to minimize dust.
- Cover trucks when hauling dirt.
- Stabilize the surface of dirt piles if not removed immediately.
- Use windbreaks to prevent accidental dust pollution.
- Limit vehicular paths and stabilize these temporary roads.
- Grade to prevent soil from washing onto paved roadways.
- Pave all unpaved construction roads and parking areas to road grade for a length no less than 50 feet where such roads and parking areas exit the construction site, to prevent dirt from washing onto paved roadways.

Construction

- Cover trucks when transferring materials.
- Use dust suppressants on traveled paths, which are not paved.
- Minimize unnecessary vehicular and machinery activities.
- Minimize dirt track-out by washing or cleaning trucks before leaving the construction site.

Post Construction

- Revegetate any disturbed land not used.
- Remove unused material.
- Remove dirt piles.
- Revegetate all vehicular paths created during construction to avoid future off-road vehicular activities.

Construction Scheduling

- Sequence construction activities so that areas void of vegetative are not exposed for long periods of time.
- Schedule landscaping and other work that permanently stabilizes the area, to be done immediately after the land has been graded to its final contour.
- Alter the project schedule to minimize the amount of denuded areas during wet months.
- Construct permanent storm water control facilities early in the project schedule and then utilize these structures for controlling erosion and sedimentation.

Limiting Exposed Areas

- Divert up-slope water from entering the denuded areas of the construction site by constructing dikes and swales.
- Divert or intercept storm water before it reaches long and/or steep slopes.
- Release captured storm water at a slow and controlled rate to prevent damage to downstream drainage ways and structures.
- Increase the soil's ability to absorb moisture through vegetative means, surface roughening, and/or mulching.
- Stage grading so that the native vegetation provides a buffer to slow and disperse runoff.

Runoff Velocity Reduction

- Build a check dams or other energy dissipation structures in unlined drainage channels to slow runoff velocity and encourage settlement of sediments.
- Limit slopes to 3:1 wherever practical.
- Intercept runoff before it reaches steep slopes using diversion dikes, swales, or other barriers.
- Protect slopes with mulches, matting, or other types of temporary or permanent soil stabilization.
- Provide velocity-reducing structures or rip rap linings at storm water outfalls.

Sediment Trapping

- Direct sediment-laden storm water to temporary sediment traps.
- Construct temporary sediment traps or basins at the drainage outlet for the site.
- Use temporary sediment barriers such as slit fences, straw bale barriers, sand bag barriers, and gravel filter barriers for construction sites with relatively flat slopes that produce sheet flow runoff.

Good Housekeeping

- Schedule regular inspections of storm water and sediment control devices.
- Repair and/or replace storm water and sediment control devices as often as necessary to maintain their effectiveness.

IX. AGENCY PREFERRED ALTERNATIVE

Based on the information disclosed in the Final EA, the FAA has determined that Alternative A demonstrated the best ability to meet the purpose and need of the project with minimal adverse environmental impact. The proposed runway extension 1,801 feet to the Northeast would result in no significant adverse impacts. This alternative would meet FAA airport design standards at Flagstaff Pulliam Airport and accommodate current and future activity levels. Therefore, Alternative A is the FAA's preferred alternative.

X. ENVIRONMENTALLY PREFERRED ALTERNATIVE

In accordance with 40 CFR §1505.2(b), the environmentally preferred alternative should be identified in the FONSI/ROD. The environmentally preferred alternative is the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves and enhances historic, cultural and natural resources. (See CEQ Memorandum, Questions and Answers about the NEPA Regulations, 46 Fed. Reg. 18026, March 23, 1981, as amended, 51 Fed. Reg. 15618, April 25, 1986, Question Number 6a). After considering these factors, including the long-term consequences, the FAA has determined the environmentally preferred alternative is the Proposed Alternative for the reasons discussed in this FONSI/ROD, Section VII, *Environmental Consequences*.

XI AGENCY FINDINGS

In accordance with the guidelines described in paragraph 1202 of FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing instructions for Airport Actions*, the FAA has made the following findings and determinations, as necessary, for the proposed project based upon appropriate evidence set forth in the administrative record required by the Airport and Airway Improvement Act of 1982, as amended.

1. **The project is reasonably consistent with existing plans of public agencies for development of the area [49 USC § 47106(a)].** Flagstaff Pulliam Airport is situated entirely on land owned and controlled by the City of Flagstaff. The Proposed Action is consistent with the plans, goals and policies for the area.
2. **Fair consideration has been given to the interests of communities in or near the project location [49 USC § 47106(b)(2)].** Throughout the EA process, local government officials, agencies, organizations, and residents of nearby communities have been consulted, or have participated in activities that have contributed to the preparation of the Final EA. Appendix B of the Final EA contains the responses from the various agencies that were consulted.

The Draft EA was made available to the public on a July 19, 2005. The public comment period on the Draft EA ended on August 26, 2005. There were 51 written comments received and addressed in the Final EA. A public hearing was held on August 18, 2005. Two comments were received during the hearing. On December 11th an amended Draft EA was made available for public comment as a result of modifications to the Supplemental Noise Analysis. Three comments were received on the document. On March 13th the public comment period was extended again due to comments received on the amended Draft EA and to ensure all interested parties had a reasonable opportunity to review the revised Draft EA and submit comments. The comment period closed April 24, 2006. Attached as an appendix to the Final EA are the comments and the responses prepared by the Airport Sponsor.

3. **Appropriate action has been or will be taken to restrict, to the extent reasonable, the use of land in the vicinity of the airport to purposes compatible with airport operations [49 USC § 47107(a)(10)].** In its February 23, 2005 letter, the Flagstaff Airport provided the required land use assurances to the FAA (See EA, Appendix C).
4. **The FAA has given this proposal the independent and objective evaluation required by the Council on Environmental Quality [40 CFR 1506.5].** As described in the Final EA the Proposed Action, and the No Action alternatives were studied extensively to determine the potential assessed impacts and appropriate mitigation measures. FAA provided input, advice, and expertise throughout the planning and technical analysis, along with an administrative and legal review of the project. FAA has independently evaluated the 2006 Final EA, and takes responsibility for its scope and contents.
5. **The air emissions resulting from the Proposed Action have been determined by the FAA to be "de minimis" and will therefore conform with the State Implementation Plan for air quality pursuant to Section 176 (c)(1)(a) and (b) of the Federal Clean Air Act as amended in 1990.** Flagstaff Pulliam Airport is located in an area designated as attainment area that does not exceed the National Ambient Air Quality Standards (NAAQS) for any pollutant. Therefore air quality conformity

rules do not apply. Based on the evaluation contained in Table 4K of the EA, the forecasted net emissions of the proposed project are below the threshold emission rates. Therefore the emissions are not regionally significant.

6. **Determination that the airport development is reasonably necessary for use in air commerce or in the interests of national defense pursuant to 49 USC § 44502(b).** The FAA has determined that the Proposed Action described in the Flagstaff EA would improve the safety and efficiency of the airport. FAA has determined the proposed runway and taxiway extensions can be operated safely. The Airport Layout Plan was evaluated under airspace case number 2002-AWP-3154-NRA.
7. **Appropriate action has been or will be taken to restrict, to the extent reasonable, the use of land in the vicinity of the airport to purposes compatible with airport operations [49 U.S.C. § 47107(a)(10)].** As required under 49 USC § 47107(a)(10), the City of Flagstaff's Land Use Assurance letter, is included in the Appendix of the Final EA.
8. **The proposed action does not involve the displacement and relocation of people [42 U.S.C. § 4601 et. seq.].** Alternative A the Proposed Action of the Final EA does not include any residential acquisition or relocation of businesses as part of the proposed actions.

XII. DECISION AND ORDERS

Section 2.1.1 of the Final EA identifies Alternative A, the Proposed Action Alternative as the City of Flagstaff's preferred action. The FAA has identified Alternative A as the FAA's preferred alternative in this FONSI / ROD. The FAA must now select one of the following choices:

- Approve agency actions necessary to implement the Proposed Action, or
- Disapprove agency actions to implement the Proposed Action.

Approval would signify that applicable federal requirements relating to airport development and planning have been met. Approval would also permit the City of Flagstaff to proceed with the proposed eligible development and possibly receive federal funding. Not approving these agency actions would prevent the City of Flagstaff from proceeding with implementation of the Proposed Action in a timely manner with federal assistance in the form of Airport Improvement Program funds.

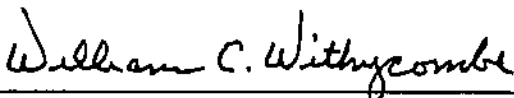
Decision: I have carefully considered the FAA's goals and objectives in relation to the various aeronautical aspects of the proposed runway and taxiway extensions project at Flagstaff Pulliam Airport as discussed in the Final EA. The review included: the purpose and need to be served by this Proposed Action; alternative means of achieving the purpose and need; the environmental impacts of these alternatives; and the mitigation necessary to preserve and enhance the human environment.

Under the authority delegated to me by the Administrator of the Federal Aviation Administration, I find that the project is reasonably supported. I therefore direct that action be taken to carry out the following agency actions discussed more fully in Section IV of this FONSI/ROD, including:

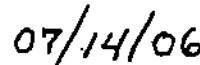
1. Unconditional approval of the portion of the ALP that depicts the proposed relocation, extension and widening of Runway 03/21 submitted by the City of Flagstaff for the Flagstaff Pulliam Airport pursuant to 49 USC § 40103(b), 44718 and 47107(a)(16) and 14 CFR 77. The approval of the ALP is based on determinations through the aeronautical study process regarding obstructions to navigable airspace, and that the airport development proposal is acceptable from an airspace perspective.
2. Determine under 49 U.S.C. § 44502(b), that the airport development is reasonably necessary for use in air commerce or in the interests of national defense.
3. Continued close coordination with the City of Flagstaff and appropriate FAA program offices, as required, for safety during construction.
4. Approval to proceed with further processing of an application for federal assistance for those eligible airport development projects described as the Proposed Action within the Final EA and this FONSI/ROD, under 49 USC § 47101 et seq.
5. Extension of Runway 3/21 and the associated runway safety area to meet FAA Airport Design Standards (14 CFR Part 139.309).
6. Extension of runway and taxiway lighting, relocation of existing approach lighting system, as well as the relocation of the existing airport service road.
7. Approval of modifications to the Airport Certification Manual (14 CFR Part 139)

This order is issued under applicable statutory authorities, including 49 USC § 40101(d), 40103(b), 40113(a), 44701, 44706, 44718(b), and 47101 et seq.

I have carefully and thoroughly considered the facts contained in the attached EA. Based on that information I find that the proposed Federal action is consistent with existing national environmental policies and objectives as set forth in section 101(a) of the National Environmental Policy Act of 1969 (NEPA). I also find the proposed Federal Action, with the required mitigation referenced above will not significantly affect the quality of the human environment or otherwise include any condition requiring consultation pursuant to section 102 (2)(C) of NEPA. As a result, FAA will not prepare an EIS for this action.



William C. Withycombe
Regional Administrator



Date

Right of Appeal

This decision, including any subsequent actions approving a grant of Federal funds or approval of an application to impose and use passenger facility charges to the City of Flagstaff, Arizona, is taken pursuant to 49 USC § 40101 et seq. and 49 USC § 47101 et seq., and constitutes an order of the Administrator which is subject to review by the Courts of Appeals of the United States in accordance with the provisions of 49 USC § 46110.