

Airport development programs are governed by a number of federal regulations. In most cases a large development program receives at least some portion of its funding from the *Airport and Airway Safety and Capacity Act of 1987*, which established the current Airport Improvement Program (AIP) development grant program. The Act permits project approval only after the Secretary of Transportation is satisfied that the project is reasonably consistent with the plans (existing at the time of approval of the project) of planning agencies for the development of the area in which the airport is located. Each airport project must also “provide for the protection and enhancement of the natural resources and the quality of the environment of the Nation.”

The approval of the Secretary of Transportation is provided through Federal Aviation Administration (FAA) airspace and environmental approval of a project. The airspace approval is typically provided through the Airport Layout Plan (ALP) airspace analysis. The environmental approval is provided through one of three documentation methods that are detailed later in this chapter.

AIRPORT LAYOUT PLAN

The ALP was originally conceived as one drawing that established the “blueprint” for the future. Through the years, the FAA requirements of the ALP have become more extensive. As the FAA requirements increased, the one drawing became too cluttered, so a set of drawings was developed instead. The ALP serves three primary purposes:

- To preserve areas needed for future facility development on drawings showing how the airport facility will look at the end of the planning period (20+ years).
- To review in detail FAA design standards to assure that appropriate clear areas are protected.
- To provide an opportunity for the various branches of the FAA to review the set of plans so that the development requirements of each group are considered (i.e. airway facilities, air traffic, etc.)

The Springfield-Beckley Municipal ALP set includes 15 sheets that together provide a complete picture of the existing and future facility needs at the airport. They are:

- Title Sheet
- Airport Data Sheet
- Existing Airport Layout Plan Sheet
- Future Airport Layout Plan Sheet
- Aerial Layout Plan
- Plan and Profile Runway 6
- Plan and Profile Runway 24
- Plan and Profile Runway 15
- Plan and Profile Runway 33
- Existing Terminal Area Plan
- Future Terminal Area Plan
- Land Use Plan
- FAR Part 77 Obstruction Plan
- Line of Sight Plan
- Exhibit “A” Property Map

A reduced size set of the ALP drawing has been included for reference at the end of this chapter. Full size drawings should be referred to when analyzing any specific development issues.

Two primary new developments are depicted on this ALP:

- Ohio Air National Guard's (OANG) replacement airport traffic control tower (ATCT)
- replacement general aviation terminal facilities

The existing OANG ATCT is older and outdated. A replacement facility is needed to update the ATCT to existing standards. The OANG conducted an ATCT siting study and follow-on analysis. Through this analysis and coordination with the City, a replacement site between the existing t-hangars and the Maintenance Hangar #2 apron was selected. This area has been leased to the OANG for their construction of a replacement ATCT.

Ultimately, the OANG also desires to lease the existing t-hangar area. To allow this to occur, the t-hangars, Maintenance Hangar #1 and Egairo hangar will need to be replaced in another location on the airport. The financially feasible alternative for relocating the facilities in the existing t-hangar area is to move them to the east side of the general aviation terminal area. The replacement ATCT makes development in this area feasible while providing controllers with a clear view from the tower of the runways and taxiways. Since these facilities are being relocated to accommodate the OANG, funding for their relocation is anticipated to come from the OANG.

In addition to the new development, some improvements to increase the utility of the airfield have also been identified. These include:

- upgrading the Runway 15-33 safety area
- minimizing the impact of the arresting barrier systems of Runway 6-24
- improving instrument approaches to Runway 6-24
- establishing straight-in approaches to Runway 15-33
- simplifying the Taxiway C/H intersection with Runway 6-24
- acquiring additional property interest in fee for runway protection zones as opportunity and funding allow

An important goal of the ALP process is airspace protection. On the federal level, Federal Aviation Regulations Part 77 (FAR Part 77) addresses the airspace surfaces that require protection. The FAA approval of the ALP places the future plans for the airport on file so that the airspace surfaces are protected for both the existing and future runways. The FAA cannot prevent the construction of structures near the airport.

On a state level, the Ohio Airport Protection Act (Tall Structures Law) is similar to FAR Part 77 and addresses airspace surfaces that require protection. The state regulations provide a means to enforce the federal requirements; however, the best protection is that which is provided at a local level.

Local zoning ordinances take two forms: land use and airspace control. Land use control is provided through local zoning that identifies airport compatible development for the areas around the

airport. Airspace zoning control provides height restrictions for objects around the airport that is at least as restrictive as FAR Part 77.

Clark County undertook an update of the airport zoning concurrent with, but independent of, the preparation of the master plan. The goal was to provide land use and airspace protection for the airport. The land-use zoning proposal was met with considerable public resistance, particularly with regard to the requirements for the development of noise sensitive uses in close proximity to the airport. As a result, the updated zoning ordinance addresses only height restrictions that mirror the FAR Part 77 requirements.

The City should continue to work with Clark and Greene counties so that the zoning around the airport, particularly any changes to existing zoning regulations, continues to be as compatible with the airport's operations as is feasible. While it is desirable to have airport specific land-use zoning adopted in the vicinity of the airport, coordination with the counties and use of the existing zoning regulations may be able to provide some protection for the airport.

ENVIRONMENTAL OVERVIEW

The FAA airspace approval of an ALP is generally issued as conditional approval. It is conditioned upon environmental approval of the individual improvements. Environmental approval is provided through one of three methods, depending on the specific project.

- Environmental Impact Statement
- Environmental Assessment
- Categorical Exclusion

The *National Environmental Policy Act of 1969* (NEPA) is the basis for the environmental review. NEPA established a broad national policy to improve the relationship between humans and the environment, and sets out policies and goals to ensure that environmental considerations are given careful attention and appropriate emphasis in all decisions of the federal government. Following the establishment of NEPA guidelines, several other important pieces of legislation were enacted that also provide guidance for the environmental approval of major development projects. These include:

- Subtitle VII, Title 49 U.S. Code – Aviation Programs, recodified from and formerly known as the “Federal Aviation Act of 1958” as amended
- The Airport and Airway Improvement Act of 1982
- Aviation Safety and Capacity Expansion Act of 1990
- Airport and Airway Revenue Act of 1987
- The National Environmental Policy Act of 1969
- The Clean Air Act of 1977
- The Noise Control Act of 1972
- The Aviation Safety and Noise Abatement Act of 1979
- Section 303, Title 49 U.S. Code – recodified from and also known as “Section 4(f) of the Department of Transportation Act of 1966”
- Section 106, National Historic Preservation Act of 1966
- The Archaeological and Historic Data Preservation Act of 1974
- The Endangered Species Act of 1973

- Section 404, Federal Water Pollution Control Act Amendment for 1972, as amended by the Clean Water Act of 1977
- Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
- Farmland Protection Policy Act
- Section 201(a), Federal Land Policy and Management Act of 1976
- Resource Conservation and Recovery Act of 1976 amended by the Solid Waste Disposal Act of 1980 and the 1984 Hazardous and Solid Waste Amendments
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Community Environmental Resource Facilitation Act (CERFA), October 1992
- Executive Order 11593, Protection and Enhancement of the Cultural Environment (dated May 13, 1971)
- Executive Order 11988, Floodplain Management and Order DOT 5650.2- Floodplain Management and Protection (dated April 23, 1979)
- Executive Order 11990, Protection of Wetlands and Order DOT 5660.1A, Preservation of the Nation's Wetlands (dated August 24, 1978)
- President's 1979 Environmental Message Directive on Wild and Scenic Rivers (dated August 2, 1979)
- Executive Order 11514, Protection and Enhancement of Environmental Quality (dated March 4, 1970)
- Executive Order 11296, Flood Hazard Evaluation Guidelines
- Executive Order 12898, Federal Actions Address Environmental Justice in Minority Populations and Low-Income Populations

FAA Order 1050.1E, Policies and Procedures for Considering Environmental Impacts, and *FAA Order 5050.4A, Airport Environmental Handbook* provide specific guidance for the environmental documentation for airport development. In an environmental documentation process, the proposed development is reviewed per the following 20 potential environmental impact categories.

- Noise
- Compatible Land Use
- Social Impacts
- Induced Socioeconomic Impacts
- Air Quality
- Water Quality
- Section 303c Lands [also known as Section 4(f) and Other Areas of Environmental Interest]
- Historic, Architectural, Archaeological, and Cultural Resources
- Biotic Communities
- Endangered and Threatened Species of Flora and Fauna
- Wetlands and Streams
- Floodplains
- Coastal Zone Management/Barrier Programs
- Wild and Scenic Rivers
- Farmland
- Energy Supply and Natural Resources
- Light Emissions
- Solid Waste Impacts
- Hazardous Waste Impacts
- Construction Impacts

Environmental Impact Statement

An Environmental Impact Statement (EIS) is the most detailed and generally most lengthy environmental documentation process. For an EIS, the FAA selects the specialized consultant to prepare the study. The FAA then enters into a memorandum of agreement with the airport sponsor. The agreement identifies that, while the airport will contract for and pay for the study process, the FAA will direct the study process not the airport. While an EIS process is ongoing, the consultant preparing the document can have no other interest in the development program under study. Depending on the type of development being assessed, there are numerous opportunities for public comment within an EIS process.

The outcome of an EIS, once accepted, is a Record of Decision (ROD) issued by the FAA. The ROD for a project identified to have an adverse effect is issued only after it is documented in writing, that “no feasible and prudent alternative exists and that all possible steps have been taken to minimize such adverse effects.” A ROD for an EIS is generally considered to have a “shelf life” of about five years during which the development program needs to be substantially under way, or a reassessment to validate the EIS may be required. An EIS is normally required for:

- First time airport layout plan approval or airport location approval for a commercial service airport located in a standard metropolitan statistical area (MSA).
- Federal financial participation in or ALP approval of a new runway capable of handling air carrier aircraft at a commercial service airport in an MSA.

In addition, an EIS is prepared for any projects that are found to have an adverse effect that cannot be completely mitigated. In some cases an EIS is undertaken immediately at the start of the environmental documentation process even though it is not automatically required for that type of project. In other cases it is an outgrowth of an environmental assessment.

Environmental Assessment

An environmental assessment (EA) is also a detailed environmental documentation process. However, the preparation of an EA is generally not as lengthy a process as that undertaken for an EIS. The EA also typically provides opportunities for public involvement varying with the specific project being assessed.

For an EA, the airport sponsor selects the specialized firm that prepares the study. The sponsor also directs the study process. The FAA’s role in an EA is that of a review agency. An EA becomes a federal document only after it is accepted by the FAA. The outcome of an EA is either a Finding of No Significant Impact (FONSI) or mitigated FONSI issued by the FAA, or an expansion to an EIS. To obtain a FONSI, it must be demonstrated that the project will have no significant impacts. For a mitigated FONSI, it must be demonstrated that any adverse impact identified can and will be mitigated. Similar to an EIS, after a FONSI is issued on an EA, it typically has a “shelf life” of about five years during which the development needs to be substantially under way, or a reassessment to validate the findings of the EA may be required.

An EA is prepared for federal financial participation in or airport layout plan approval of:

- Airport location
- New runway
- Major runway extension
- Runway strengthening resulting in a 1.5 DNL (Day-Night Average Sound Level) or greater increase in noise over any noise sensitive area located within the 65 DNL
- Construction or relocation of an entrance or service road connecting to public roads that adversely affects the capacity of such public roads
- Land acquisition associated with any of the above, plus land acquisition that results in relocation of residential units when there is evidence of insufficient replacement dwellings, major disruption of business activities, or acquisition that involves land covered under Section 4(f) of the Department of Transportation (DOT) Act recodified as Section 303(c)
- Establishment or relocation of an instrument landing system or an approach lighting system
- Airport development with extraordinary circumstances, such as highly controversial on environmental grounds or causing potential impacts in any of the 22 categories studied
- FAA requests for conveyance of government land for airport purposes

Categorical Exclusions

The level of documentation varies for a categorical exclusion. The documentation prepared must demonstrate that the project meets the categorical exclusion standards and will have no significant environmental impacts. For example, for the

overlay of an existing runway to improve the surface condition but not strengthen it, the necessary documentation is fairly short since no new areas are being disturbed and the project is on existing airport property. For a project like an apron expansion on airport property, depending on the site, the airport may need to demonstrate that there are no environmental impacts to items such as wetlands, endangered species, and archaeological sites; thus resulting in more documentation.

The FAA must concur with the supporting documentation before the project can be categorically excluded. Similar to an EIS and EA, if a categorical exclusion is prepared well in advance of a project, it also has a “shelf life” of about five years before it may need to be reviewed.

Unless specifically covered by the requirements of an EA or EIS, the following projects are typically eligible for a categorical exclusion, providing there are no extraordinary circumstances that create significant impacts:

- Runway, taxiway, apron, or loading ramp construction or repair work including extension, strengthening, reconstruction, resurfacing, marking grooving, fillets and jet blast facilities, and new heliport on existing airports, except where such action will create environmental impacts off airport property
- Installation or upgrading of airfield lighting systems, including runway end identifier lights, visual approach aids, beacons, and electrical distribution system
- Installation of miscellaneous items including segmented circles, wind or landing direction indicators or measuring devices, or fencing

- Construction or expansion of passenger handling facilities
- Construction, relocation or repair of entrance and service roadways
- Grading or removal of obstructions on airport property and erosion control actions with no off-airport impacts.
- Landscaping generally, and landscaping or construction of physical barriers to diminish impacts of airport blast and noise
- Projects to carry out noise compatibility programs
- Land acquisition and relocation associated with any of the above
- Federal release of airport land
- Removal of a displaced threshold
- Issuance of certificates and related actions under the Airport Certification Program
- Issuance of grants for preparation of noise exposure maps and noise compatibility programs
- Airspace determinations

SPRINGFIELD-BECKLEY MUNICIPAL DEVELOPMENT PROGRAM

The primary development depicted on the ALP was overviewed from an environmental perspective.

Replacement General Aviation Facilities

The projects associated with the general aviation replacement/expansion facilities are typically eligible for a categorical exclusion providing it can be documented that there are no significant impacts. The first step in this documentation process is to use the environmental checklist prepared by the FAA to identify whether there are any factors that may trigger the proposed development items to be assessed through an environmental assessment. Some field investigations may be necessary in order to document whether or not there would be significant impacts.

Airfield Improvements to Increase Utility

Preliminarily reviewing airfield improvements to increase utility, it does not appear that any of the thresholds requiring preparation of an EIS or EA will be met since the majority of the airfield improvements are in previously disturbed areas. Also, the proposed approach improvements would not involve any instrument landing system or approach lights. With these improvements the first

Also categorically excluded and not subject to extraordinary circumstances:

- Acquisition of an existing privately owned airport as long as acquisition only involves change of ownership
- Acquisition of security equipment required by rule or regulation for the certification of an airport, or snow removal equipment
- Issuance of planning grants
- Airport Improvement Program actions that are tentative and conditional as a preliminary action to establish a sponsor's eligibility under the Program
- Retirement of the principal or bond or other indebtedness for terminal development
- Issuance of airport policy and planning documents that are not intended for direct implementation or are issued by the FAA as administrative and technical guidance to the public

step would also be to use the FAA checklist and conduct any field investigation as necessary.

Replacement ATCT

The replacement ATCT is an OANG project being constructed on new OANG leasehold, so it followed the military's regulations as well as meeting any local or state permitting requirements. It was also been submitted to the FAA for airspace review.

SUMMARY

The ALP will provide airspace approval of the proposed development. As structures are constructed on the airport they all need a more detailed airspace review via the submittal of an *FAA 7460-1 Form, Notice of Proposed Construction*

or Alteration, so the exact location, height, building materials, and any use of radio frequencies can be reviewed for airspace compatibility. This submittal also typically addresses the height of any equipment that will be used during construction.

It appears the development proposed on the ALP may be eligible for categorical exclusion, although some field investigation may be needed to demonstrate that there are no significant environmental impacts. It is anticipated that some local and/or state permits will need to be acquired for construction, particularly with regard to erosion control with land disturbing activities. While the ALP shows the overall development, the following Implementation Plan chapter addresses how the proposed development is envisioned to occur and the funds that will be needed.