

Kirtland Air Force Base Joint Land Use Study



Implementation Project Report



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Kirtland Air Force Base Joint Land Use Study

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Trestle EMP Simulator - B1B Bomber 1989, Credi: www.commons.wikimedia.org

Glossary of Acronyms

ABW	Air Base Wing
ADP	Area Development Plan (Kirtland Air Force Base)
AGIS	Albuquerque Geographic Information System
AMPA	Albuquerque Metropolitan Planning Area
APZ	Accident Potential Zones
BASH	Bird Aircraft Strike Hazard
CFR	Code of Federal Regulations
CZ	Clear Zones
DoD	United States Department of Defense
DOE	United States Department of Energy
DPM	Development Process Manual (City of Albuquerque)
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
GIS	Geographic Information System
JLUS	Joint Land Use Study for Kirtland Air Force Base
KAFB	Kirtland Air Force Base
KPA	Kirtland Air Force Base Planning Area
Ldn	Day-Night Average Sound Level (also DNL)
MIA	Military Influence Area for Kirtland Air Force Base
MOU	Memorandum of Understanding
MRCOG	Mid-Region Council of Governments of New Mexico
MSG	Mission Support Group
MTP	Metropolitan Transportation Plan
NEPA	National Environmental Policy Act
NNSA	National Nuclear Security Administration
NPDES	National Pollutant Discharge Elimination System
OEA	Office of Economic Adjustment of the U. S. Department of Defense
RPZ	Runway Protection Zone
SLO	New Mexico State Land Office
SNL	Sandia National Laboratories
USGS	United States Geological Survey
V/C	Volume-to-Capacity Ratio

Executive Summary

A Joint Land Use Study (JLUS) for Kirtland Air Force Base (KAFB) was published in 2010, following a two-year planning process. The U. S. Department of Defense Office of Economic Adjustment (OEA) provided funding for the JLUS to assist local governments in the Albuquerque metropolitan area to undertake a collaborative process for coordinating local development to ensure compatibility with KAFB. Subsequent to the publication of the JLUS, a continuation grant was also funded by the OEA to implement various recommendations from the JLUS.

This report presents the Implementation Project for the KAFB JLUS. The implementation activities proposed for this JLUS are concentrated within a designated buffer area encircling the Base, referenced as the Kirtland Military Influence Area (MIA). This MIA identifies those lands where KAFB compatibility issues are likely to occur.

Compatibility issues typically result from conflicting land uses between military activities and civilian populations, and may lead to encroachment upon military facilities. Encroachment from nearby civilian communities can interfere with the ability of a military installation to perform its missions and functions; or could jeopardize the continued usefulness of an airport for military purposes.

The Implementation Project for the KAFB JLUS included a thorough analysis of planning area jurisdictions administered by local, state, federal and tribal governments. Organizational structures, regulatory mechanisms, and development review procedures were evaluated for potential strategic actions to accomplish key recommendations selected from the JLUS. Implementation action strategies were formulated to provide a means of increased collaboration and communication through inter-local agreements for the review and approval of development occurring within the MIA. Other action strategies are proposed to avoid or prevent incompatible land use and development near KAFB.

Implementation activities are primarily intended to discourage incompatible development or conflicting land use near KAFB. A variety of methods are recommended for implementing the KAFB JLUS:

1. Establish governmental policies and procedures for reviewing proposed land development occurring within the Kirtland MIA;
2. Improve the administration and enforcement of local government codes and ordinances that control the development of lands in the vicinity of KAFB; and
3. Prepare and execute Memoranda of Understanding (MOUs) to formalize agreements between affected local governments and KAFB for maintaining direct communication, information exchange, and commitments for a development review process to ensure compatible development of lands near KAFB.

For purposes of implementing the JLUS, three types of safety zones, mostly associated with the airport runways of Albuquerque International Sunport, are identified for particular oversight regarding land use activities and future development. These safety zones are described as: Airport Runway Approach/Departure Corridors, Airspace Protection Areas, and Noise Impact Zones. The control of land uses within these safety zones is crucial to the current and future missions and operations at KAFB.

Implementation action strategies are presented in this report as specific recommendations for the appropriate jurisdictions to achieve the objectives of the JLUS. It is up to the individual governments to move forward with the implementation of the JLUS to ensure long-term compatibility of land use and development around KAFB. Listed below is an outline summary of the implementation action strategies prepared for the JLUS Implementation Project.

Mid-Region Council of Governments

- a) Provide ongoing support to governments implementing the JLUS and continue to facilitate the JLUS Implementation Team.
- b) Monitor the progress of the JLUS implementation action strategies, particularly in reviewing the status of MOUs and proposed regulations.
- c) Participate in multi-agency development review processes conducted by the City of Albuquerque and Bernalillo County.
- d) Provide GIS mapping assistance relating to MIA boundaries.
- e) Monitor JLUS-related activities in Valencia and Torrance counties.

City of Albuquerque

- a) Enhance the application review process for proposed development in the MIA, with the objective of identifying potential new development that may be or become incompatible to operations at KAFB.
- b) Distribute a prepared Fact Sheet to applicants proposing development in the MIA to explain the consequences of land use near KAFB.
- c) In the event that the City updates its Comprehensive Plan, references should be made to the action strategies of the JLUS.
- d) The City should review its Airport Zoning Ordinance, Airport Protection Overlay Zones, and area lighting regulations to promote the compatibility of land uses near KAFB and Albuquerque International Airport.
- e) Adopt a MOU between the City and KAFB to sanction a notification and review process to ensure compatible development near the boundary of KAFB. [Adopted]

Bernalillo County

- a) Enhance the application review process for proposed development in the MIA, with the objective of identifying potential new development that may be or become incompatible to operations at KAFB.

- b) Distribute a prepared Fact Sheet to applicants proposing development in the MIA to explain the consequences of land use near KAFB.
 - c) In the event that the County updates its Comprehensive Plan, references should be made to the action strategies of the JLUS.
 - d) The County should review its Light Pollution Ordinances and Airport Protection Overlay Zones to promote the compatibility of land uses near KAFB and Albuquerque International Airport.
 - e) Adopt a MOU between the County and KAFB to establish standard operating procedures for notification and communication concerning land use and development around KAFB.
- Other Action Strategies**
- a) Adopt a MOU between the Pueblo of Isleta and KAFB to establish formal notification and information exchange procedures in order to ensure compatible activities and development on both sides of their common border.
 - b) Adopt a MOU between the New Mexico State Land Office and KAFB to establish standards for the effective implementation of the JLUS with respect to State Trust Land and for the use of Trust Lands for the reciprocal benefit of KAFB and the State of New Mexico. [Adopted]
 - c) Adopt a MOU between the City of Belen and Valencia County to ensure City/County collaboration in developing a Belen Airport Master Plan and adopting a common set of regulations for land use near the airport in anticipation of airport use for training exercises conducted by the U. S Air Force in conjunction with KAFB.
 - d) Develop a template for avigation and noise easements relative to activities on KAFB or the Albuquerque International Sunport.
 - e) Develop a written disclosure statement as a means of notifying property owners within the MIA about the proximity impacts of KAFB and the Albuquerque International Sunport.
 - f) Develop a real estate disclosure template for property transactions within the MIA, informing buyers of the potential for off-site impacts such as sound and vibrations generated by KAFB or the Albuquerque International Sunport.



Credit: www.kirtland.af.mil/photos

1.0 Introduction

1.1 KAFB Joint Land Use Study

The Joint Land Use Study for Kirtland Air Force Base (JLUS) was completed and released to the public on June 30, 2010, following a two-year planning process. The JLUS was funded in part by the U.S. Department of Defense (DoD), Office of Economic Adjustment (OEA), with additional funding from the Mid-Region Council of Governments (MRCOG) of New Mexico and the County of Bernalillo. The JLUS report is comprised of two volumes which are available for download on the MRCOG website. The Study was prepared by Keystone International, Inc. and was reviewed and accepted by the JLUS Advisory and Technical Committees representing the key stakeholders and governments in the region.

The grant funding for the JLUS was administered by the MRCOG, acting as fiscal agent and contract manager. The MRCOG is organized as an association of local and special purpose governments and functions as a regional planning agency. (see Figure 1) Kirtland Airforce Base (KAFB) is located entirely within the four-county MRCOG planning region. While the primary focus of the JLUS was to develop potential strategies to discourage the development of incompatible land use in the vicinity of KAFB, there were additional references made pertaining to regional transportation systems, and the local economic impact of military operations at KAFB.

KAFB adjoins the Albuquerque International Sunport (the Albuquerque Sunport), which is a regional airport owned and operated by the City of Albuquerque. The Albuquerque Sunport is located adjacent to KAFB on the western side of the Base. A unique partnership exists between KAFB and the City of Albuquerque Aviation Department for the purpose of coordinating the operations of commercial airlines, air cargo, general aviation, and military aircraft. However, KAFB is a complex Air Force installation that conducts a variety of military operations, training missions, nuclear research, weapons testing, and other activities relating to military defense services and national security. Major tenants include the Department of Energy (DOE) and Sandia National Laboratories (SNL).

In addition to military aviation activities at KAFB and the Albuquerque Sunport, numerous military and non-military missions and operations are dispersed throughout the 80-plus square mile military reservation. Consequently, there are both aviation and non-aviation activities on KAFB that may impact the surrounding communities, and conversely may be affected by civilian development adjacent to KAFB.

1.2 Implementation Project

Kirtland JLUS Objectives. Thirty-three recommendations are proposed for implementation in the JLUS. The recommendations contain a wide range and diversity of strategies to meet the objectives identified in the Study. The four basic objectives of the JLUS analysis include the following:

1. Conduct a regional approach to a coordinated and collaborative land use planning process to minimize incompatible development adjacent to and around KAFB;
2. Sustain KAFB operations, which include aviation and aviation-related missions, activities to support national security strategies, research and development programs, special training of combat forces, and other unique missions at KAFB;
3. Ensure the long-term viability of the Albuquerque Sunport to support military flying missions and other DOD activities at KAFB; and
4. Balance the sustainability of military missions with compatible development of surrounding communities.

Implementation Project Funding. Because of the multi-jurisdictional responsibilities for managing land use outside the boundaries of KAFB, the MRCOG took the lead in coordinating a land use planning process to encourage compatible development around KAFB. The MRCOG conducts regional planning programs relating to transportation systems, water resources, and economic development; however, the authority for land use planning and regulation is carried out under the jurisdiction of individual local governments and other land management agencies.

Since adequate funding was not available to implement all of the recommendations in the JLUS, the MRCOG submitted an application to the OEA of the DoD for continuation of the funding grant to implement selected recommendations contained in the JLUS. Subsequently, a grant award was approved and funding was provided to carryout an Implementation Project for the JLUS.

Scope of Work. The Scope of Work for the JLUS Implementation Project contained three basic elements or tasks for completing a selected group of recommendations from the JLUS. The three tasks are described as follows:

1. **Area Analysis.** Specific planning areas will be designated in order to identify special regulatory areas where compatibility issues are likely to occur. A "Primary Tier Planning Area" will be delineated to include perimeter lands surrounding KAFB as a special planning and development review area where land use activities may be or become incompatible with KAFB operations, and conversely, where KAFB military operations may generate a negative impact on adjacent civilian land areas. In addition, "Secondary Tier Planning Areas" will be identified where training operations for aircraft and crews originating at KAFB are or may be conducted in outlying areas within the MRCOG region. These Primary and Secondary Tier Planning Areas will be analyzed for existing

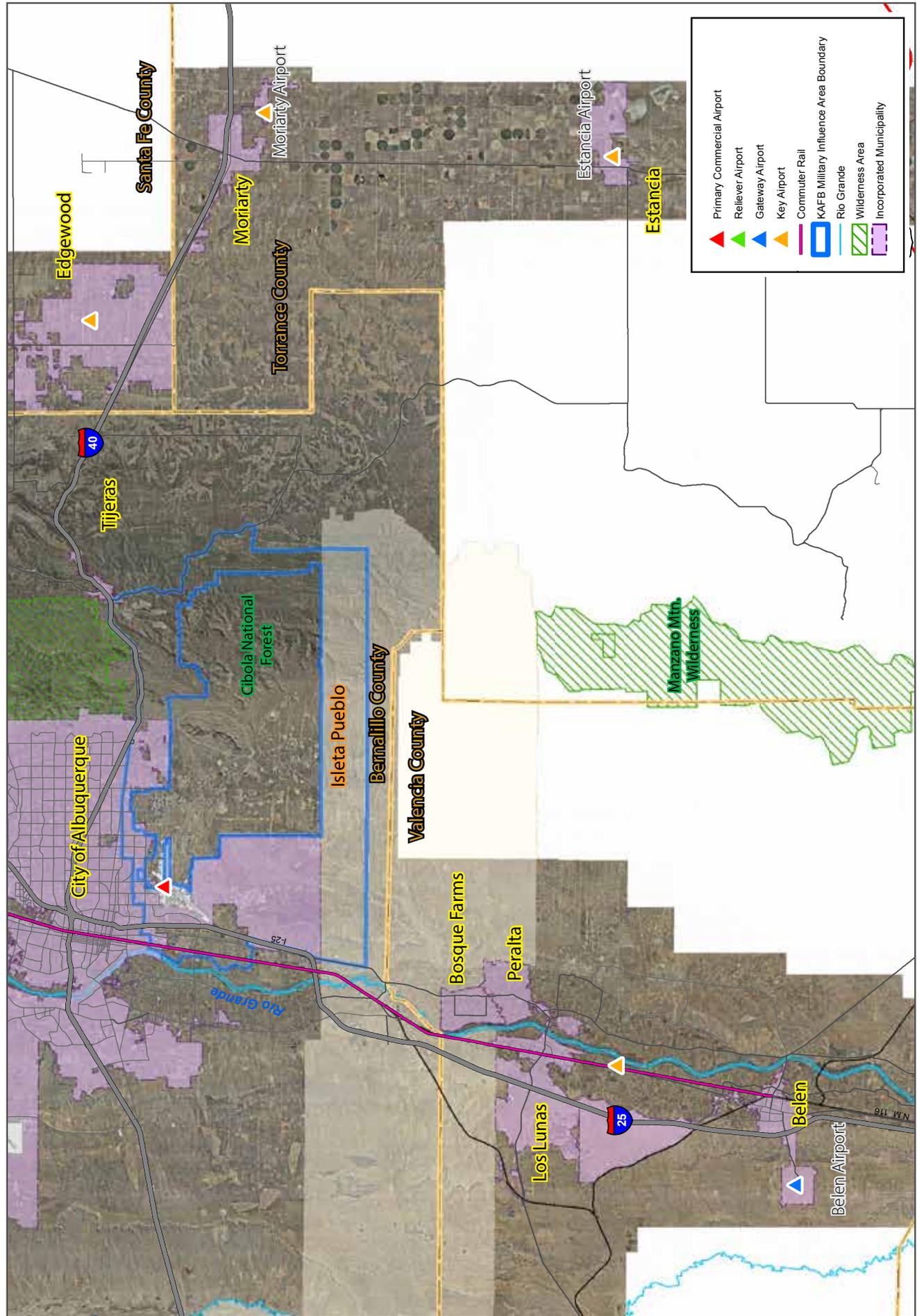


Figure 1: JLUS Regional Map
 KAFB JLUS Implementation Project
 July 2013

and future development and land use activities. The planning area analysis will provide a basis for reviewing the potential for incompatibility with military activities associated with KAFB.

2. **Process Review.** Organizational structures and development review procedures of local governments and other land use authorities will be analyzed for comparison and applicability to a collaborative multi-agency review of land development in the designated planning areas. Inter-local agreements will be developed to enable better coordination and exchange of information between KAFB and surrounding communities. Also, special review criteria and/or standards will be proposed for areas where new development or redevelopment may result in land uses that are incompatible with KAFB.
3. **Regulatory Recommendations.** The analysis of development review procedures conducted within the designated planning areas and other areas of military influence will be focused on regulations and standards designed to reduce or eliminate incompatible land uses near KAFB. Memoranda of Agreement will be prepared in accordance with Federal regulations concerning noise impacts, encroachment into military airspace, and other environmental impacts associated with the operations of KAFB. Existing local ordinances and agreements will be reviewed for possible revision or adaptation to accomplish the selected recommendations from the JLUS.

The Implementation Project will be conducted by the MRCOG staff with oversight by the MRCOG Board of Directors and with direct participation by the various governments affected by the Project. A final report of the Implementation Project will be written and published for use by the jurisdictions most affected by the JLUS. Implementation action strategies for the governing agencies with jurisdiction in the designated planning areas will be incorporated within the final report. See Appendix Q for the MRCOG Executive Board resolution accepting the implementation report.

1.3 Encroachment and Compatibility Issues

Conflicting land uses between military activities and civilian populations is often referred to as encroachment. The effects of encroachment from nearby civilian communities may interfere with the ability of a military installation to perform its missions or the continued usefulness of an airport used for military purposes. The consequences of incompatible land uses adjacent to any airport, military or civilian, may result in restricted runway expansion, limited airport operations, or changes in aircraft traffic patterns. Additionally, civilian populations may be exposed to detrimental effects associated with military operations or aircraft activities, such as noise or the risk of aircraft mishap. The presence of incompatible land uses near KAFB may also result in community opposition to current and future missions at the Base.

Although the airport and military installations at KAFB were historically developed in isolated fringe areas, the urbanization of Albuquerque and Bernalillo County has expanded to the boundaries of KAFB. The JLUS Implementation Project seeks to formalize cooperative development review procedures and to establish prescribed communication protocols for notification of proposed land development adjacent to KAFB. Adjacent lands have been identified for purposes of implementing the JLUS; and are hereafter referred to as a Military Influence Area (MIA). It is ultimately the responsibility of the governmental land use authorities to administer appropriate control over land uses within such an influence area in order to promote compatible development near KAFB.

Airport Related Encroachment. The movement of aircraft affects land and property located near the Albuquerque Sunport, particularly during takeoffs and landings; and military aircraft can have a significantly greater impact on local communities. Airport operations in general are often perceived by the public to generate negative impacts on nearby communities. It is important to note however that Albuquerque Sunport is a multiple-use airport; and it is the State's largest commercial airport.

Airports and aircraft operations need to be protected from the encroachment of incompatible land use, especially land development that occurs within specified airport safety zones. The most critical airport safety zones are the areas where approaches to the runways (i.e., takeoffs and landings) occur. Although aircraft accidents are rare, maintaining compatible use around airports helps to reduce the risk to people who live and work near the airport, and to the aircraft passengers as well.

Development activities such as residential buildings, people-intensive facilities, noise sensitive activities, and land uses that attract wildlife have a potential for being or becoming incompatible to airport uses. Height of structures such as tall buildings, utility poles, and communications towers is also a significant issue of concern if located near airport runways. Airport runway clear zones, whether designated for military or civilian aircraft operations, are critical safety zones where non-airport related development should be minimized or prohibited.

The JLUS identifies military runway approach zones, which are defined as Clear Zones (CZ) and Accident Potential Zones (APZ) (see Figure 2). The Air Force utilizes CZs and APZs that extends from the end of runways to identify an increased potential for accidents. These are areas that extend out from the end of runways for 7,000 feet. Civilian airports under FAA regulation, however do not have an equivalent. Although military aircraft make use of the Albuquerque Sunport, the implementation strategies presented in this report will use the FAA approach/departure surfaces, which extend out from the ends of the runways, as a basis for reviewing land use. Therefore, airport safety zones associated with aircraft takeoffs and landings at Albuquerque Sunport will be defined, for the JLUS Implementation Project as "Runway Approach/Departure Corridors," (explained later in PART 3.2 of this report).

Airport noise is another issue affecting land use around airports.

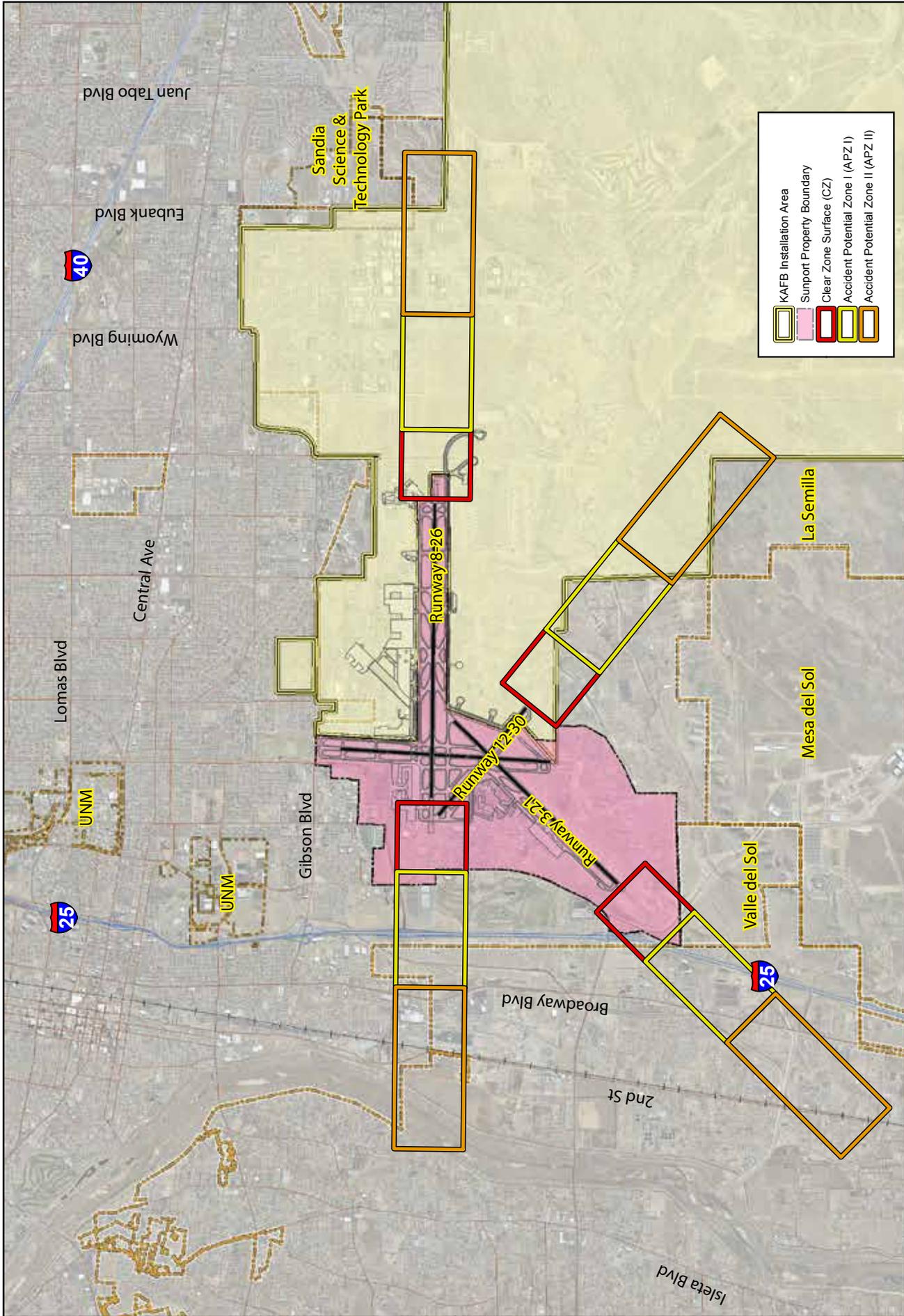


Figure 2: Clear Zones and Accident Potential Zones
 KAFB JLUS Implementation Project
 July 2013

Noise exposure impacts the environment and can disrupt normal community activities and lifestyles. High noise levels can also affect human health and safety.

Noise exposure areas have been delineated for Albuquerque Sunport and are mapped as noise contours (see Figure 3). The Albuquerque and Bernalillo County zoning maps utilize noise contours to define overlay zones for airports. Land use within a noise exposure zone is restricted and regulated by planning and zoning authorities.

Encroachments may also be defined as obstructions, or hazards, to navigable airspace around airport runways and other areas where low level flights are conducted. Airport hazards may be defined as structures or objects of natural growth (i.e., tall trees) that obstruct air space required for the taking off, landing, and flight of aircraft, or that interfere with visual, radar, radio, or other systems for tracking and acquiring data relating to aircraft activities.

Airspace protection zones are promulgated by the Federal Aviation Administration (FAA) and are defined as three-dimensional shapes that are circumscribed by "imaginary surfaces" connected to the runways of an airport. Imaginary surfaces typically slope outward and upward from the surface of the runway to characterize the airspace requirements for the various types of aircraft utilizing the airport. Penetrations or intrusions through these imaginary surfaces are considered obstructions to aviation; and are specifically applied to land use in terms of the height of structures, both manmade and natural, near an airport runway.

Civilian Land Use and Non-Military Development near KAFB. Areas situated outside and adjacent to the KAFB boundary are characterized by a diversity of non-military land uses including civilian neighborhoods, commercial corridors, industrial activities, forested lands, and grasslands. These adjacent land uses are managed by four governmental jurisdictions that abut the KAFB boundary line: the City of Albuquerque, Bernalillo County, Cibola National Forest (U.S. Forest Service), and the Pueblo of Isleta.

Most of the northern boundary of KAFB is adjacent to municipal incorporated lands under the jurisdiction and control of the City of Albuquerque. The development of neighborhoods just north of KAFB has been progressing since the 1940s and is approaching full build-out of low-to-medium density residential communities with low density commercial and business activities along the major travel corridors.

Bernalillo County is in proximity to KAFB west of the Base where land uses are mostly industrial and agricultural with scattered residential areas. Portions of Bernalillo County also lie northeast and east of KAFB. The East Mountain Area of Bernalillo County is characterized by rural development and federal forest lands.

KAFB is bounded on the south by the Pueblo of Isleta. There is minimal development along the reservation boundary. However, these lands have restricted access maintained and enforced by the Isleta Tribal government. The Pueblo reservation lands are considered noise sensitive areas affecting the traditional lifestyles

of the tribal population. In some cases, activities conducted on KAFB may create disturbances during cultural events or ceremonies of the Pueblo.

Noise and vibrations generated within KAFB are also a concern of the Albuquerque Seismological Laboratory located on Isleta Pueblo lands on the southern border of KAFB. The Seismological Laboratory is part of the Global Seismographic Network for monitoring earthquakes and other seismic events.

The Sandia Ranger District of the Cibola National Forest lies to the east of KAFB. This is part of the East Mountain Area of Bernalillo County, which includes federal forest lands and scattered rural residential settlements. The issue of concern in this mountainous area is trespass from public roads and rural residential areas onto KAFB, where access is restricted due to weapons testing and other hazardous activities.

Military Training Exercises. KAFB is one of eleven bases for the Air Force Materiel Command, and includes more than one hundred tenant organizations. KAFB maintains key operational, management, research, development, testing, acquisition and training missions as part of the nation's national defense strategy. Current military aviation activities at KAFB involve special operations for helicopter, tilt-rotor, and C-130 aircraft stationed at the Base. Training corridors have been established for the arrival and departure of aircraft at KAFB and consequently overfly a significant portion of the region which extends over much of New Mexico and into both Arizona and Colorado. These training corridors are used for low-altitude tactical navigation; and often require special operations crews to train at night and under adverse weather conditions. One of the obvious requirements of night training for pilots and other military personnel is the availability of relatively dark sky conditions where training maneuvers are conducted.

Explosives and Weapons Testing. Some of the missions at KAFB involve munitions firing and explosives testing. Specific areas on the Base have been designated for conducting explosive operations; other areas have been established for storage of explosives. Explosive safety zones on KAFB occur mostly in the central and southwestern portions of the Base, and to a lesser extent in the eastern portion (Cibola National Forest withdrawn lands) of the Base. Noise exposure areas have been calculated and delineated over land areas both inside and outside the boundaries of KAFB. For example, the noise from explosives testing occurring in the southwestern portion of the Base produces a noise footprint that overlaps the eastern portion of the Mesa del Sol planned community development, La Semilla buffer area, and along the northern portion of the Pueblo of Isleta reservation lands.

Firing ranges for small arms are located predominantly in the eastern portion of KAFB. The impacts for these firing ranges are contained within the Base perimeter. The impact areas, however, may contain unexploded ordnance which pose(s) a risk of injury or death to Base personnel as well as trespassers who wander in from the federal forest lands along the eastern boundary of KAFB. Some of the unexploded ordnance was deposited during artillery munitions testing in the 1940s and 1950s.

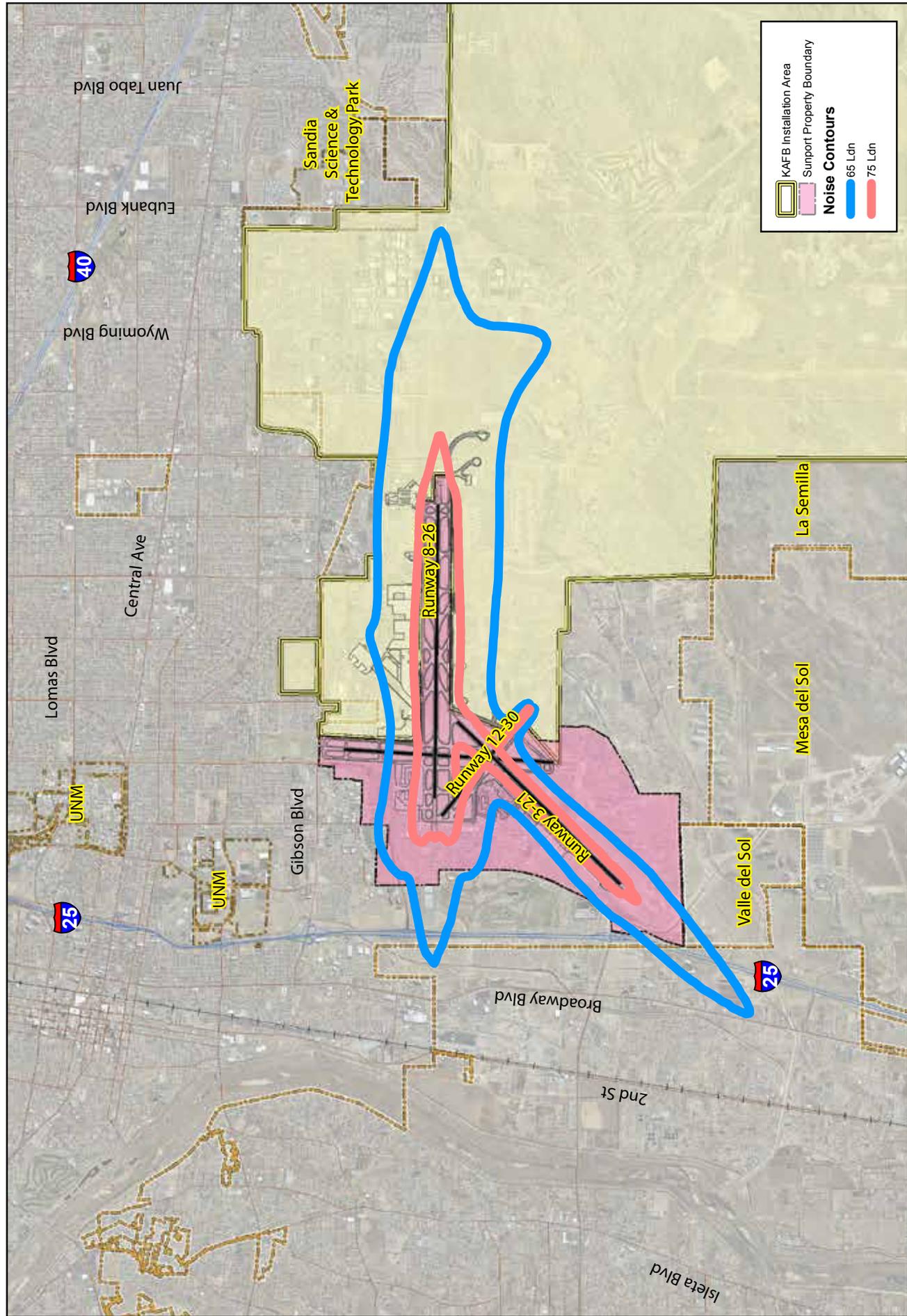


Figure 3: Noise Contours
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2.0 Implementation Methodology

2.1 Selected Recommendations

The JLUS proposed 33 recommendations for maintaining compatible development around KAFB, establishing coordinated and collaborative land use planning procedures, and administering land use regulations to ensure the sustainability of KAFB missions and operations. The transition to implementation of the JLUS involved an appraisal of realistic expectations for accomplishing as many recommendations as possible within a short period of time and by identifying the high priority recommendations.

Selection Process. Two JLUS Committees were established to provide oversight and monitor the preparation of the Study: the JLUS Advisory Committee comprised of public officials and policy makers, and the JLUS Technical Committee which included local planning staff and technical experts. Although the JLUS Committees were disbanded after the completion of the initial study report, an online poll of all previous Committee members was conducted to identify the priority recommendations for a “phase one” implementation of the Kirtland JLUS. The outcome of the survey provided a selection of ten recommendations from the JLUS to pursue for the Implementation Project. It should be noted that the selected recommendations listed below have no priority ranking:

- Consider designations of Clear Zones and Accident Potential Zones for selected Sunport runways;
- Mandatory referral of development applications;
- Military participation on local Planning Boards;
- Mandatory referral of documents requiring environmental review;
- Regional transportation planning and land use compatibility;
- Real estate disclosures;
- Real estate disclosures – zoning and development agreements;
- Avigation easements;
- Light control; and
- Ensure compliance with FAA Part 77 and 150.

During the early stages of the Implementation Project, it became obvious that other recommendations could or should be added to the initial ten recommendations that were selected by the JLUS Committees. Therefore, an additional six JLUS recommendations from the JLUS were identified as inherently related and necessary in order to accomplish the initial list of ten recommendations. The additional recommendations from the JLUS are as follows:

- Establish a JLUS Implementation Committee;
- Develop Memoranda of Understanding (MOU);
- Establish a regional planning forum (RPF);
- Establish a Kirtland AFB Planning Area (KPA);
- Formalize relationship between the Pueblo of Isleta and Kirtland AFB; and
- Preserve La Semilla as a Buffer.

2.2 Implementation Team

An Implementation Team (Team) was created to serve as an organizational structure for discussing, coordinating, and reviewing the Implementation Project. The members of the Team represented the governmental jurisdictions within the JLUS implementation planning areas as well as organizations directly affected by the JLUS recommendations. The roster for the Team is provided in Appendix A. The Team was ideally suited to provide technical expertise as well as a multi-jurisdictional perspective on the implementation strategies. Team membership included the following entities:

City of Albuquerque Planning Department
City of Albuquerque Aviation Department
Bernalillo County Planning Department
Pueblo of Isleta
Cibola National Forest, Sandia Ranger District
State of New Mexico Office of Military Base Planning and Support
Kirtland Air Force Base
U.S. Department of Energy, National Nuclear Security Administration
Kirtland Partnership Committee
New Mexico State Land Office
Mesa del Sol, Forest City Enterprises
Mid-Region Council of Governments

The Team occasionally met as a group and was provided information and reports through mass distribution e-mails; however, the majority of meetings occurred as individual or subgroup meetings concerning the drafting of specific regulations, procedures, and agreements.

2.3 Implementation Action Strategies

Implementing recommendations from the JLUS will be dependent on the appropriate follow-through of regulatory authority, maintaining rules of procedure, and clarifying policy guidelines established by the various governmental entities that have jurisdiction within the planning areas defined in this report. Research and analysis of local government plans, policies, and ordinances was conducted by MRCOG staff for the City of Albuquerque and Bernalillo County, and included many individual and small group meetings with City and County staff. Relevant federal agencies were consulted to gather information regarding legal authorizations, plans, programs, and rules and procedures that, in part, provide guidance for development review on lands within their jurisdiction. Communication and consultation with the Pueblo of Isleta was an ongoing activity through various contacts within the Tribal government.

Policies and Procedures. Land use decisions by governmental entities are strongly influenced by established policies and procedures. Written policies and action strategies may be found in planning documents, particularly in comprehensive plans. Process and procedural guidelines are typically placed in administrative reports and procedural manuals, if they exist. In the City of

Albuquerque and Bernalillo County, various master plans, sector development plans, and regional or area-wide infrastructure development plans involving land use near KAFB were reviewed for compatibility and encroachment issues pertaining to KAFB. The land development review process was analyzed and summarized for each of the governments having jurisdiction adjacent to KAFB; and including KAFB for development activities occurring within the Base.

Codes and Ordinances. Local governments in New Mexico are granted police powers to exercise reasonable control over the development of lands within their jurisdiction in the interest of protecting the health, safety, and general welfare of the community. This includes the power to manage the development process and to enforce local laws and regulations. Relevant codes and ordinances that control development and land use activities in the vicinity of KAFB were reviewed and analyzed specifically for the JLUS Implementation Project.

The two most significant land use control ordinances are the zoning and subdivision ordinances. Zoning ordinances divide the community into districts and regulate land use activity in each district or zone. Zoning maps are critical to the enforcement of zoning regulations. Special Geographic Information System (GIS) maps were prepared for purposes of the JLUS Implementation Project and are available to the City of Albuquerque and Bernalillo County for general planning applications. Subdivision regulations govern the division of land into lots or parcels for development

and the location of supporting infrastructure. Other regulatory ordinances such as dark sky or light pollution ordinances, and building code standards pertaining to sound insulation for buildings exposed to aircraft noise, were reviewed as well.

Cooperative Agreements. The JLUS recommends the adoption of Memoranda of Understanding (MOUs) to formalize multi-jurisdictional agreements. These agreements basically assign roles and responsibilities for actions and decisions to fulfill particular JLUS recommendations. A Memorandum of Understanding is a legal document that describes a cooperative agreement between two or more parties. For purposes of the JLUS Implementation Project, the MOUs are not legally binding, but are intended to express a common line of action or commitment. These MOUs are used primarily to establish standard operating procedures for notification, communication, and information exchange between the parties. Additionally, the MOUs are intended to maintain the coordination of proposed land use activities to ensure compatible development around KAFB. Five MOUs were developed for implementing the JLUS:

1. MOU between KAFB and City of Albuquerque,
2. MOU between KAFB and Bernalillo County;
3. MOU between KAFB and Isleta Pueblo;
4. MOU between KAFB and New Mexico State Land Office; and
5. MOU between City of Belen and Valencia County

3.0 Planning Area Analysis

3.1 JLUS Study Areas

The original study area for the JLUS was delineated as a five-mile buffer zone encircling KAFB (see Figure 4). Although the five-mile study area was located within Bernalillo and Valencia counties, representatives from Sandoval and Tarrant counties, and the southern portion of Santa Fe County were included in the study process. The MRCOG planning region provided a comprehensive background for evaluating impacts to and from KAFB missions.

The JLUS proposed the establishment of a Kirtland AFB Planning Area (KPA) comprised of sectors to provide a regional context for planning and to identify areas subject to special regulation of land uses due to aircraft operations at KAFB. The four KPA sectors were described as follows:

- KPA I – The four-county MRCOG region;
- KPA II – Runway Clear Zones and Accident Potential Zones;
- KPA III – Noise impact areas from aircraft and other KAFB operations; and
- KPA IV – Areas affected by low level flight patterns.

Following preliminary research and discussions with the Team, it was determined that a more refined buffer area around KAFB could be delineated for purposes of reviewing and regulating land uses adjacent to the KAFB boundary. Noise impact areas and other airport safety zones have been previously delineated

in the JLUS and are typically located within close proximity to the Albuquerque Sunport runways.

The City shares its runways with KAFB through a joint use agreement, which allows KAFB the use of the City-owned airport. KAFB provides aircraft rescue and firefighting services for the airport as part of the agreement. The City of Albuquerque Aviation Department provides operations and maintenance of the airport. Currently, the airport is comprised of three active runways (see Figure 5):

- 8-26 : an east-west air carrier runway, 13,793 ft. by 150 ft.;
- 3-21 : a northeast-southwest air carrier runway, 10,000 ft. by 150 ft.; and
- 12-30 : a northwest-southeast general aviation runway, 6,000 by 150 ft.

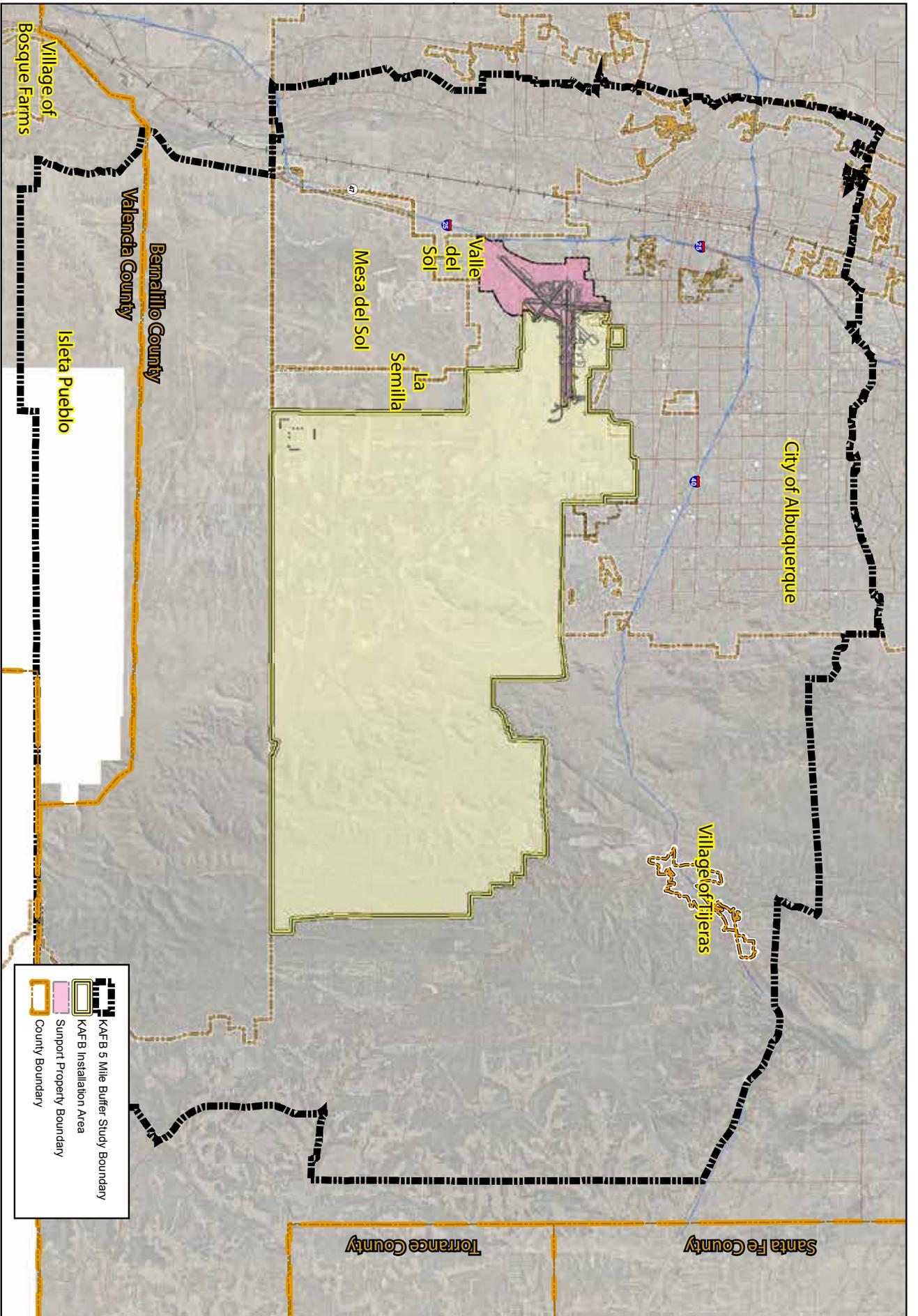


Figure 4: 5 Mile Buffer Zone - Study Area

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3.2 Designated Planning Areas

Primary Tier Planning Areas. In accordance with the Scope of Work for the JLUS Project, a Primary Tier Planning Area was created and endorsed by the Implementation Team to form a buffer area encircling KAFB to identify lands where land development or civilian activities may be or become incompatible to military operations on KAFB (see Figure 6). This area has been labeled the "Kirtland Military Influence Area" (MIA). The MIA buffer area varies in width, depending on the type and intensity of development adjacent to the KAFB boundary and the layout of the runways at Albuquerque Sunport. Wherever possible, the MIA boundary follows roadways and property lines for easier recognition of the boundary line for the MIA. Two particular boundary requirements were that the MIA boundary is at least one and one-half miles from the runways in the vicinity of the airport, and that the MIA boundary within the Isleta Indian Reservation has a fixed setback distance of two miles from the KAFB boundary. [Note: A very small portion of the incorporated Village of Tijeras in the far northeast corner of the MIA, at the intersection of I-40 and N.M. Highway 14, is excluded for purposes of this report on the Implementation Project.]

The MIA identifies an area within which development activities should be reviewed for compatibility with KAFB operations. The MIA is essentially a special-purpose planning and development review area that may be impacted by military activities occurring on KAFB, and also where civilian development may affect the ability of KAFB to carry out its missions.

Within the MIA, there are various types of safety zones associated with the airport runways of Albuquerque Sunport: 1) runway approach/departure corridors, 2) aviation noise impact areas, and 3) three-dimensional zones surrounding each runway where there is a potential for physical obstructions penetrating designated airspace. These three types of safety zones are described in detail below:

1. **Airport Runway Approach/Departure Corridors.** Due to the joint use operations of the Albuquerque Sunport, there are some complications with the definition of airport runway approach/departure zones because the civilian and military standards are different. Civilian airport runways designate Runway Protection Zones (RPZ) at the ends of runways in accordance with FAA regulations. The Air Force designates CZs and APZs extending from the ends of military runways to identify where there is a potential for aircraft accidents. Since the runways at Albuquerque Sunport are owned and operated by the City of Albuquerque as a commercial airport, the military designations of CZ and APZs are not applicable even though there are military aircraft utilizing the airport. Instead, the delineation of RPZs in conjunction with specified runway approach/departure corridors provides a basis for reviewing and restricting land uses which may be under flight paths for aircraft accessing the airport runways.

The *Albuquerque International Sunport - Airport Master Plan* includes maps which delineate runway approach surfaces. These runway approach surfaces typically extend for miles out from the runways at varying slopes; but land use compatibility issues are more significant closer to the runway. For purposes of implementing the JLUS, the runway approach surface delineation in the Airport Master Plan can provide a template for describing an approach/departure corridor which overlays an identifiable area of land. When reviewing applications for proposed development near the airport runways, approach/departure corridors would be considered an area of concern to aircraft operations within a stipulated distance of two miles from the end of the runway.

2. **Noise Impact Zones.** Noise is one of the most common environmental issues associated with aircraft operations near developed areas. Based on scientific analysis of the human perceptions of sound, noise metrics have been defined for



CV-22 Osprey, KOB-TV News Crew Ride, Credit: www.kirtland.af.mil/photos

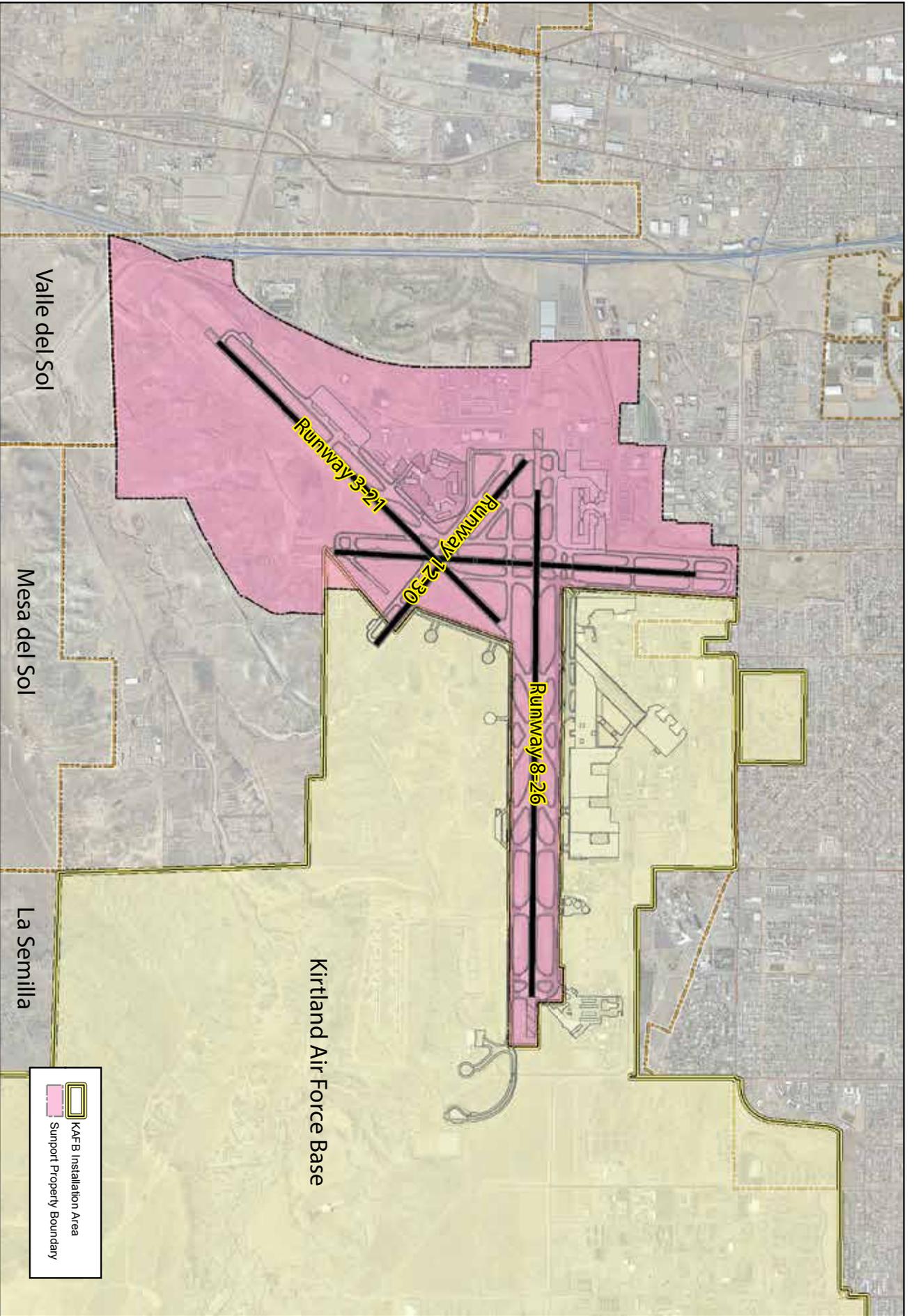


Figure 5: Albuquerque International Sunport Runways

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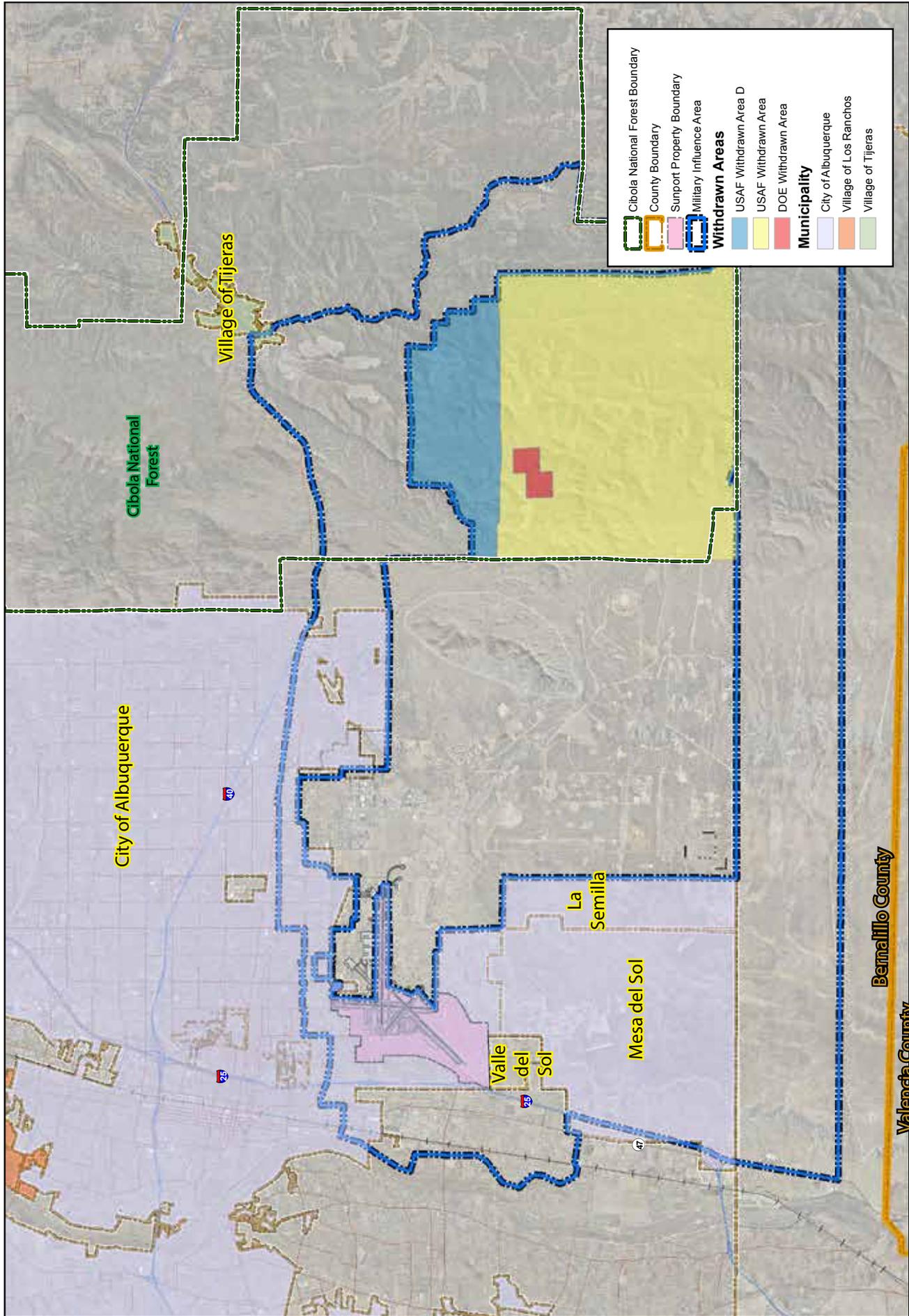


Figure 6: Military Influence Area
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measuring sound impacts. Airport noise is expressed in terms of time-averaged sound levels that provide a measure of the average sound energy during the measurement period. For evaluation of noise effects on the community, a measure of the noise impact known as Ldn, or DNL, (Day-Night Average Sound Level) is used. Ldn ratings can be plotted over land areas in the form of contour lines. Typically, noise contours for the Ldn 65, 70, and 75 noise levels are shown on maps used to identify areas where there are anticipated airport noise compatibility problems. The 65 and 75 Ldn contours for Albuquerque Sunport provide a basis for land use zoning in the City of Albuquerque and in Bernalillo County. Federal Aviation Regulation (FAR) Part 150 [49 CFR Part 150] is the primary regulation that provides guidance and standards for controlling land use to maintain compatibility with aviation noise on and around airports.

3. Obstructions to Military Airspace. FAR Part 77 [49 CFR Part 77] establishes standards and notification requirements for man-made structures or natural objects affecting navigable airspace around airport runways. "Imaginary surfaces" is the term used by the FAA for regulatory invisible volumes of air above the runway, in which aircraft do not fly below and objects on the ground do not penetrate. They typically slope outward and upward from the runway. These imaginary surfaces provide the basis for regulation of height of objects around the airport. FAA has a website to access in order to ascertain if a proposed construction project near the airport violates regulation. That website is <https://oaaaa.faa.gov/ObstructionEvaluation/AirportAirspaceAnalysis>. Graphically portraying these zones is also problematic on two-dimensional mapping systems such as the maps or map atlases commonly adopted by reference as an element of local land use zoning ordinances.

The City of Albuquerque does have an Airport Zoning Ordinance in place that identifies airport-related zones applicable to underlying lands subject to height limits for structures that may cause obstructions to airspace. The various zones that are created and defined by the ordinance include: Instrument and Noninstrument Approach Zones, Transition Zones, Horizontal Zones, and Conical Zones. The areas underlying these zones would be subject to airspace protection criteria to avoid development that may pose hazards to air flights. These airspace protection zones, however, are not represented on the Albuquerque zoning maps.

The *Albuquerque International Sunport -Airport Master Plan* contains maps describing airport airspace dimensions based on Part 77 surfaces. Accompanying the maps are tables which identify height requirements and various obstructions to the defined airspace.

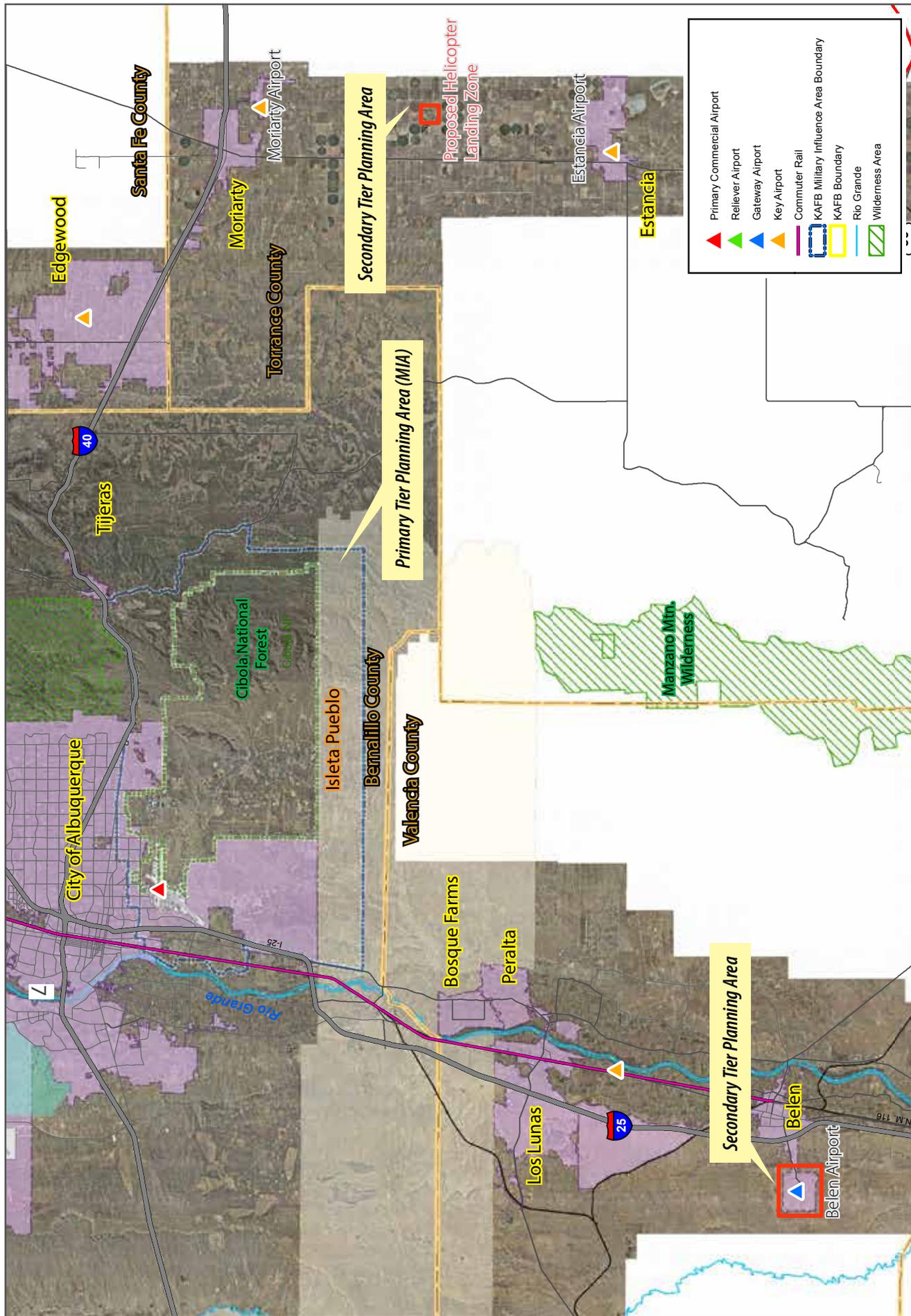
Secondary Tier Planning Areas. The Scope of Work for the JLUS Implementation Project called for investigation and analysis of Secondary Tier Planning Areas in which training operations involving aircraft originating at KAFB may be conducted in outlying areas within the region. Two specific areas in adjacent counties were identified for purposes of the JLUS Implementation Project (See Figure 7):

1. City of Belen Municipal Airport. The U. S. Air Force and KAFB are considering the Belen airport as a facility for night training of C-130 aircraft. This would be a long-range project because the airport would have to be expanded and improved to handle the landing/takeoff operations of C-130s. Airport expansion would involve construction of a new crosswind runway. In order to deal with the encroachment and compatibility issues at the Belen airport, the control of land use and development needs to be coordinated between the City of Belen and Valencia County.

Alexander Municipal Airport is owned and operated by the City of Belen. The airport property is situated on the far western side of the City and is surrounded by the unincorporated lands of Valencia County (see Figure 8). While Belen has zoning jurisdiction within its municipal boundary, Valencia County maintains zoning jurisdiction around the airport. Approval of any subdivision of land for development outside City limits around the airport is under concurrent jurisdiction of both the City and the County, and requires independent review and approval by the City and County based on their respective subdivision regulations. The City of Belen and Valencia County have initiated discussion on developing an airport master plan and a cooperative agreement to manage development of lands around the airport.

2. Torrance County Helicopter Landing Zone. An Environmental Assessment has been prepared by the U. S. Air Force to evaluate a potential Low-Dust Helicopter Landing Zone for aircrew training by the 58th Special Operations Wing from KAFB. This landing zone would be utilized by helicopters (HH-60 and UH-1) and tilt-rotor aircraft (CV-22). The location of the turf grass landing zone is on a 25-acre site subleased within a sod farm approximately four miles east of the community of McIntosh in Torrance County. McIntosh is an unincorporated community located on NM Highway 41 midway between the municipalities of Moriarty and Estancia. No site improvements would be required for helicopter operations. Helicopter sorties to the landing zone would involve training operations that include approach and landing procedures, flying in group formations, night vision goggle sorties, alternate insertion and extraction, and lift/hoist operations.

The Helicopter Landing Zone lies within the jurisdiction of Torrance County. Farming and ranching are the predominant activities around the proposed Landing Zone and the area is zoned as an Agricultural Preservation District. There are scattered residential structures within a half mile of the Landing Zone.



	Primary Commercial Airport
	Reliever Airport
	Gateway Airport
	Key Airport
	Commuter Rail
	KAFB Military Influence Area Boundary
	KAFB Boundary
	Rio Grande
	Wilderness Area

Figure 7: Secondary Tier Planning Areas
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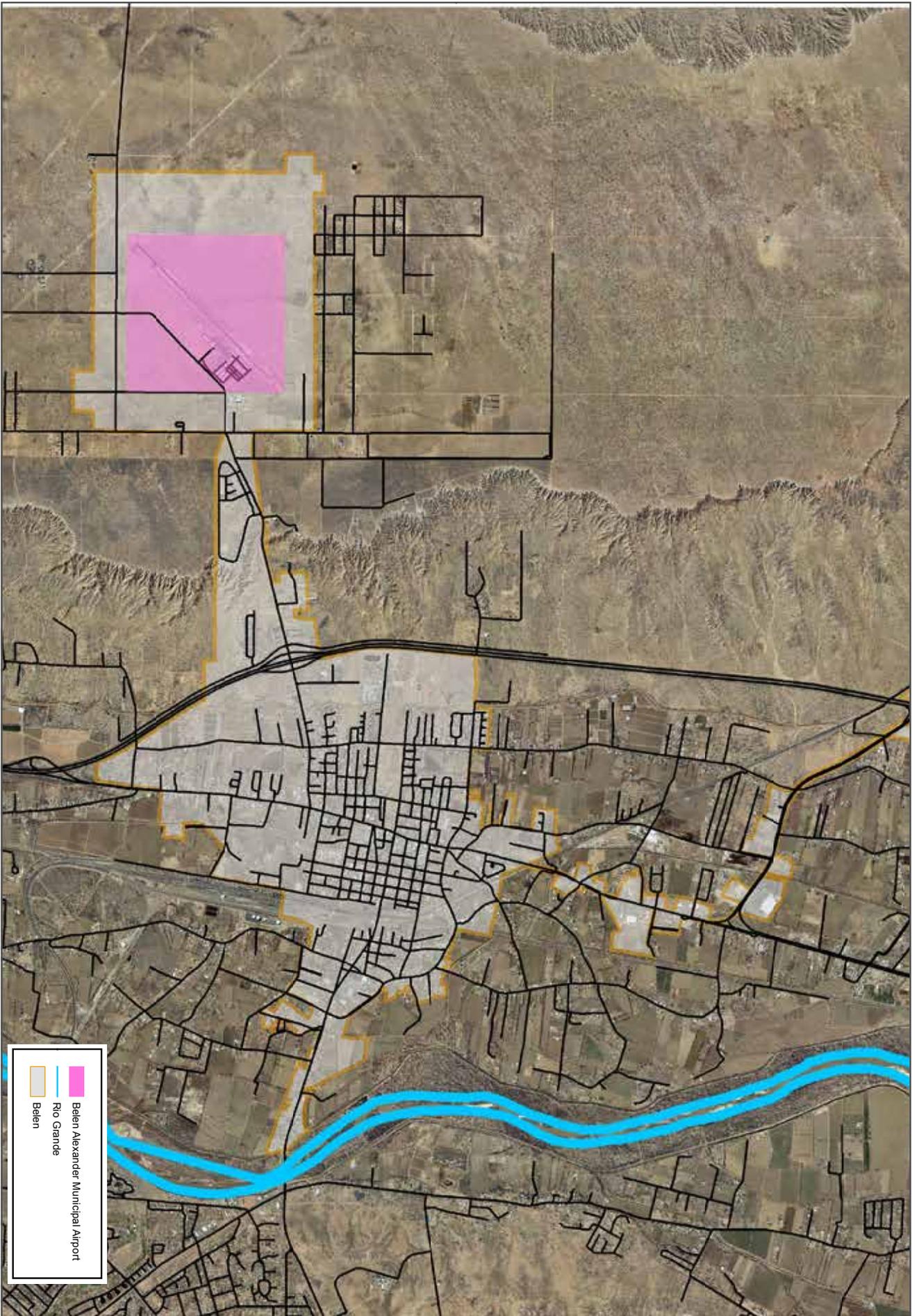


Figure 8: Belen Alexander Municipal Airport

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3.3 Jurisdictional Authorities

Several governmental jurisdictions have the authority to manage land use and control development around KAFB. Maintaining compatible land use around the Base requires communication and coordination with the City of Albuquerque, Bernalillo County, New Mexico State Land Office (SLO), Isleta Pueblo, and the Cibola National Forest (refer to Figure 9).

Local Governments. Counties, just like municipalities, are local governments in New Mexico. They are granted police powers by the State to regulate land use and development within their jurisdiction. The City of Albuquerque and Bernalillo County both administer and enforce zoning ordinances that control the use of land adjacent to the northern and western boundaries of KAFB. Both the City and County also control the division of land for purposes of selling or leasing real estate for development; and they maintain capital improvement programs that provide public infrastructure around and into the Base.

Tribal Governments. The Isleta Pueblo, located along the southern border of KAFB, is a Native American Indian reservation covering an area of more than 211,000 acres with a 2010 population of 3,400 residents. The Tribal Governor, with two Lieutenant Governors, and the Tribal Council provide the administrative and legislative oversight to govern the Pueblo community. Although the Isleta Pueblo population continues to live mostly according to the ancient cultural traditions, the Pueblo also operates a casino and hotel resort complex and other modern business enterprises. Pueblos in New Mexico are not subject to any State powers concerning development and land use control, however each pueblo government does maintain control of development throughout their reservation lands according to tribal practices. A two-mile wide buffer zone that extends south from the KAFB boundary into Isleta Pueblo is included in the MIA. Other than the Isleta Casino Resort complex, this buffer zone does not contain development.

State Agencies. The SLO is the prominent state agency with land holdings in the MIA. The New Mexico Commissioner of Public Lands holds and manages State Trust Lands within two general areas of the MIA: the Mesa del Sol and La Semilla master planned areas located on the west end of KAFB south of the Albuquerque Sunport; and various tracts of land in the vicinity of the Sandia Science and Technology Park adjacent to the KAFB Eubank Gate on the northeast side of the Base. State Trust Lands are generally exempt from the local planning and regulatory jurisdictions of municipalities and counties; but leased trust land are ordinarily developed in cooperation with the relevant local planning authorities to be in compliance with local plans and compatible with surrounding land development. The SLO has many other holdings around New Mexico, some of which may be available for military purposes such as the Secondary Tier Planning Areas identified for this JLUS Implementation Project.

Federal Agencies. KAFB is a unique military installation that includes a number of federal agencies, military and non-military as well as aviation and non-aviation activities. The DoD and DOE are the primary federal entities working within KAFB. The activities of more than 100 organizations within KAFB are generally contained

within the boundaries of the Base; however, there are some off-Base impacts generated by Base programs which affect properties within the MIA. The various federal agencies and federally-contracted organizations within KAFB conduct a wide range of programs comprising aviation and combat training, military-related research and development, national security initiatives, health care activities, energy research and development, and other specialized missions.

Cibola National Forest both overlaps and wraps around the eastern end of KAFB (see Figure 10). Portions of Cibola National Forest have been withdrawn for military purposes by the DoD and for research and development programs by the DOE. These withdrawn areas are restricted to public access. The Sandia Ranger District is one of four ranger districts in the Cibola National Forest; and is adjacent to the eastern boundary of KAFB. This Ranger District is located geographically in the Sandia-Manzano Mountains that serve as a premier open space refuge to the Albuquerque metropolitan area. The Sandia-Manzano Mountains also provide spiritual lands for traditional Indian beliefs and are occasionally visited for tribal ceremonial purposes.

The U.S. Geological Survey (USGS) maintains an installation containing the Albuquerque Seismological Laboratory; however, the laboratory complex is located on lands leased from the Isleta Pueblo and abuts the southern boundary of KAFB near the southeast corner of the Base. This facility is accessed through KAFB.

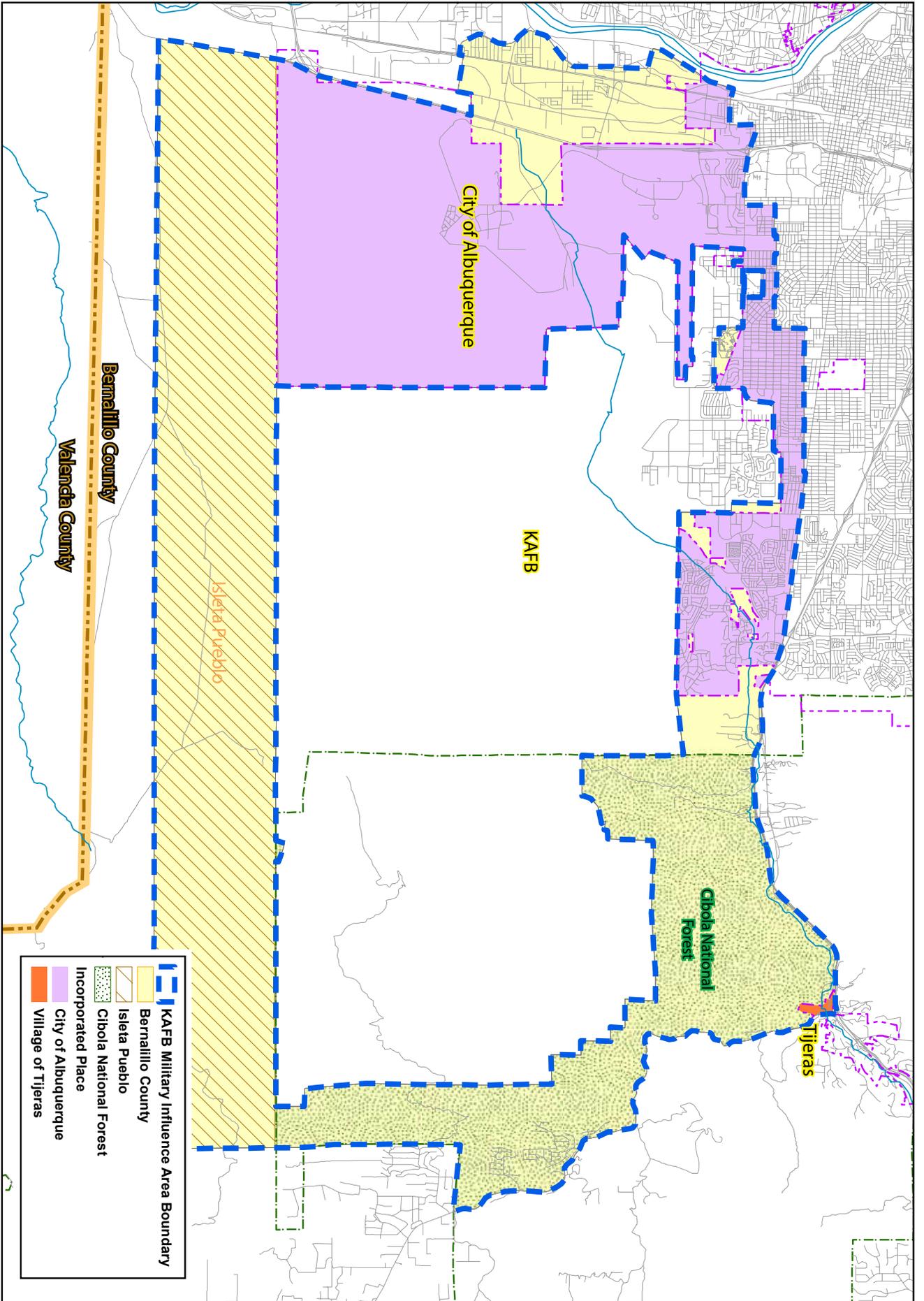


Figure 9: Jurisdictions in the Military Influence Area

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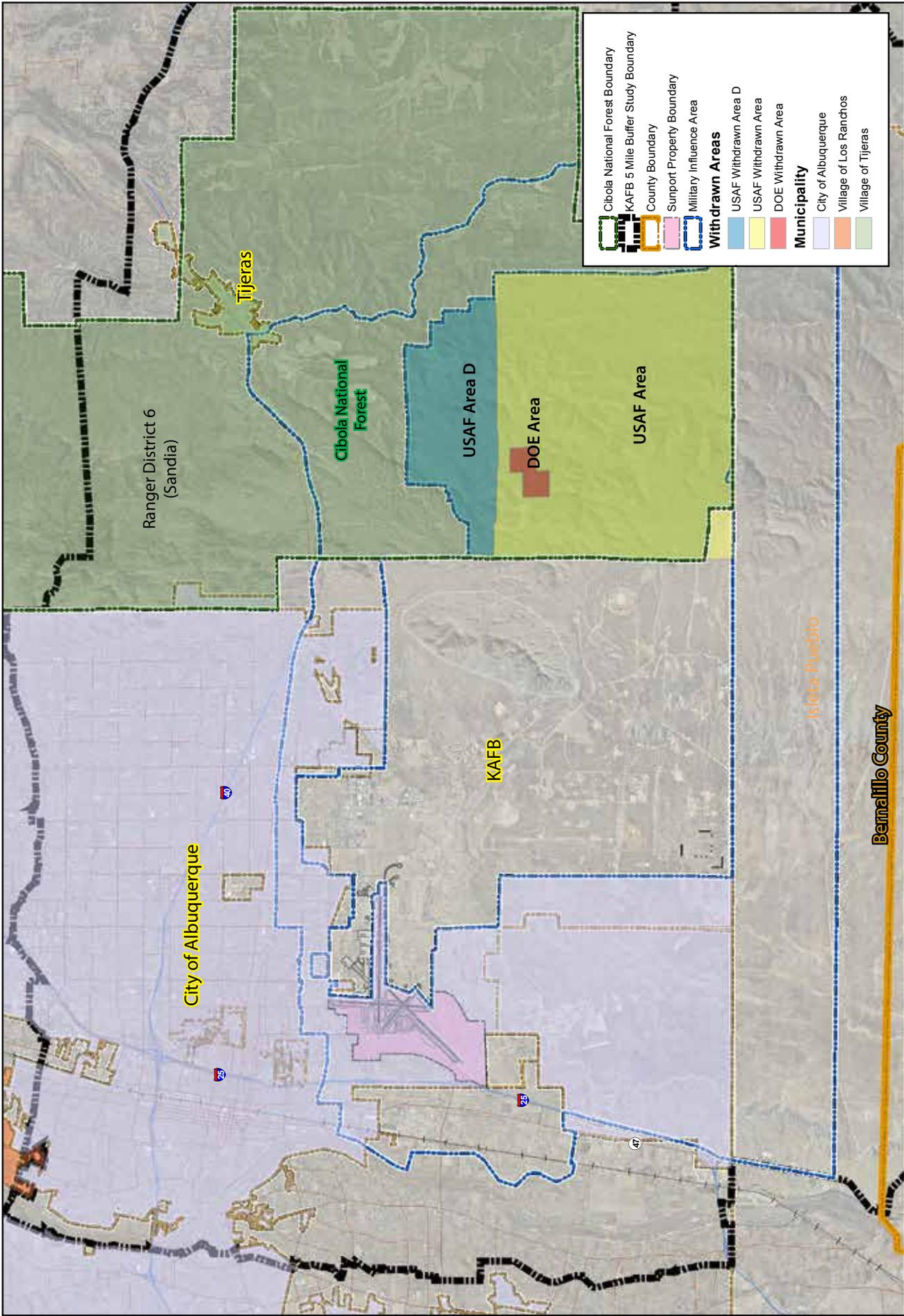


Figure 10: Sandia Ranger District and KAFB Withdrawn Areas
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3.4 Current Land Use Patterns

Encroachment issues and compatibility of land uses around KAFB are the result of land development and population growth in the Albuquerque metropolitan area. The current land use patterns as well as zoning and other regulatory controls within the MIA to a large extent determine the level of compatibility with the KAFB missions and operations.

Land Use and Development in the MIA. Thirteen categories of current land use within the MIA are displayed in Figure 11. Development in the MIA within the City of Albuquerque is near full build out. Overall, the development adjacent to KAFB is primarily low-to-medium density residential and commercial land use with building heights less than 50 feet. These housing and business land uses would not be considered incompatible with Base activities based on their density characteristics. In addition, there are scattered non-airport related industrial activities, warehousing, agricultural croplands, vacant lands, and transportation corridors throughout the MIA. However, there may be issues concerning existing and future development underlying the airport approach/departure corridors as described in this Implementation Project report.

Runway safety zones constitute the key areas where incompatible land use is a significant concern. The RPZs are designated areas attached to the ends of runways and are essentially free from non-airport related development and are mostly located on airport property (City of Albuquerque) or KAFB. Current land use within the approach/departure corridors extending beyond the airport runways is predominantly non-residential; however, there is some low density residential development within these corridors for the stipulated distance of two miles from the end of runway.

The approach/departure corridor for Runway 26 is located within KAFB; however, it does overlay Sandia National Laboratories (Technical Areas I and II) within the two-mile distance from end of Runway 26. Consequently, land use compatibility should be reviewed in terms of the density of employees and structures within this approach/departure corridor, and for certain uses related to scientific research and development which could produce interference to aircraft operations.

There are also noise impact zones associated with the runways of Albuquerque Sunport (previously shown in Figure 2, Part 1.3). Within the 65 Ldn noise contour for all runways, there is no existing residential development. The 65 Ldn noise contours on the ends of Runways 03 and 08 extend over the I-25 freeway and into areas in the Rio Grande valley west of the airport.

Zoning Regulations in the MIA. Land areas within the MIA that are not federal or state trust lands are subject to the zoning authority of either the City of Albuquerque or Bernalillo County. Generalized zoning classifications from combined City and County zoning maps are displayed on Figure 12 which shows the zoning patterns in the MIA. The official zoning maps of the City and County incorporate noise impact zones as designated overlay zones listed with the zoning categories.

There are established residential neighborhoods within the two

western approach/departure corridors (linked to Runways 08 and 03). However, there is no residential or residentially-zoned land within a mile from the end of runway in any of the approach/departure corridors. In fact, the majority of the lands in the RPZs and approach/departure corridors are zoned for manufacturing or industrial uses.

The City of Albuquerque has adopted an Airport Zoning Ordinance which is intended to establish height limits around the Albuquerque Sunport. This ordinance establishes height restrictions within various defined zones around the airport runways, basically in accordance with FAR Part 77 guidelines promulgated by the Federal Aviation Administration for eliminating obstructions to navigable airspace near runways. While this ordinance has been “on the books” for decades, it does not appear that the ordinance has been fully enacted, including the creation of a City/County Joint Airport Zoning Board of Appeals, and is not enforced at this time. The Albuquerque Airport Zoning Ordinance refers to maps that portray the various zones established for purposes of the ordinance, but such maps are not referenced in the zoning map atlas. Such maps do exist in the Airport Master Plan and are referred to as “Airport Airspace Drawings.” Since the Albuquerque Airport Zoning Ordinance is currently in place, it should be either revised and enforced, or repealed.

Dark sky ordinances are recommended in the JLUS. Such ordinances are sometimes incorporated into zoning ordinances as part of the outdoor lighting regulations, but may also be adopted as independent regulatory ordinances. Bernalillo County adopted a Light Pollution Ordinance for the East Mountain Area in 1991 in order to regulate outdoor lighting in that rural and mountainous area specifically. The East Mountain Area Plan encompasses the eastern portion of the MIA. The City of Albuquerque has minimal area lighting regulations (revised in 2002) in the current zoning ordinance (Sec. 14-16-3-9); however, those regulations do not meet the requirements of dark sky regulations discussed in more detail later in this report.

The City of Albuquerque established a special task force to prepare comprehensive dark sky text amendments to the zoning ordinance in 2005. A draft proposal was completed for revising specific sections of the zoning ordinance concerning area lighting and illuminated signage within the City. The stated intent was to significantly reduce sky glow by requiring most outdoor lighting to be directed downward and shielded from the sky, to place a curfew on lighted signs and buildings, to reduce disruptive lighting in residential neighborhoods, and to increase the energy efficiency of lighting in general. This ordinance was never adopted by the City Council. However, there are dark sky regulations that were adopted as an element of the Mesa del Sol Master Plan community within the City of Albuquerque. Mesa del Sol is located near light sensitive KAFB project areas, such as the Starfire Optical Range. The Starfire Optical Range employs a massive telescope equipped with optical systems designed for satellite tracking.

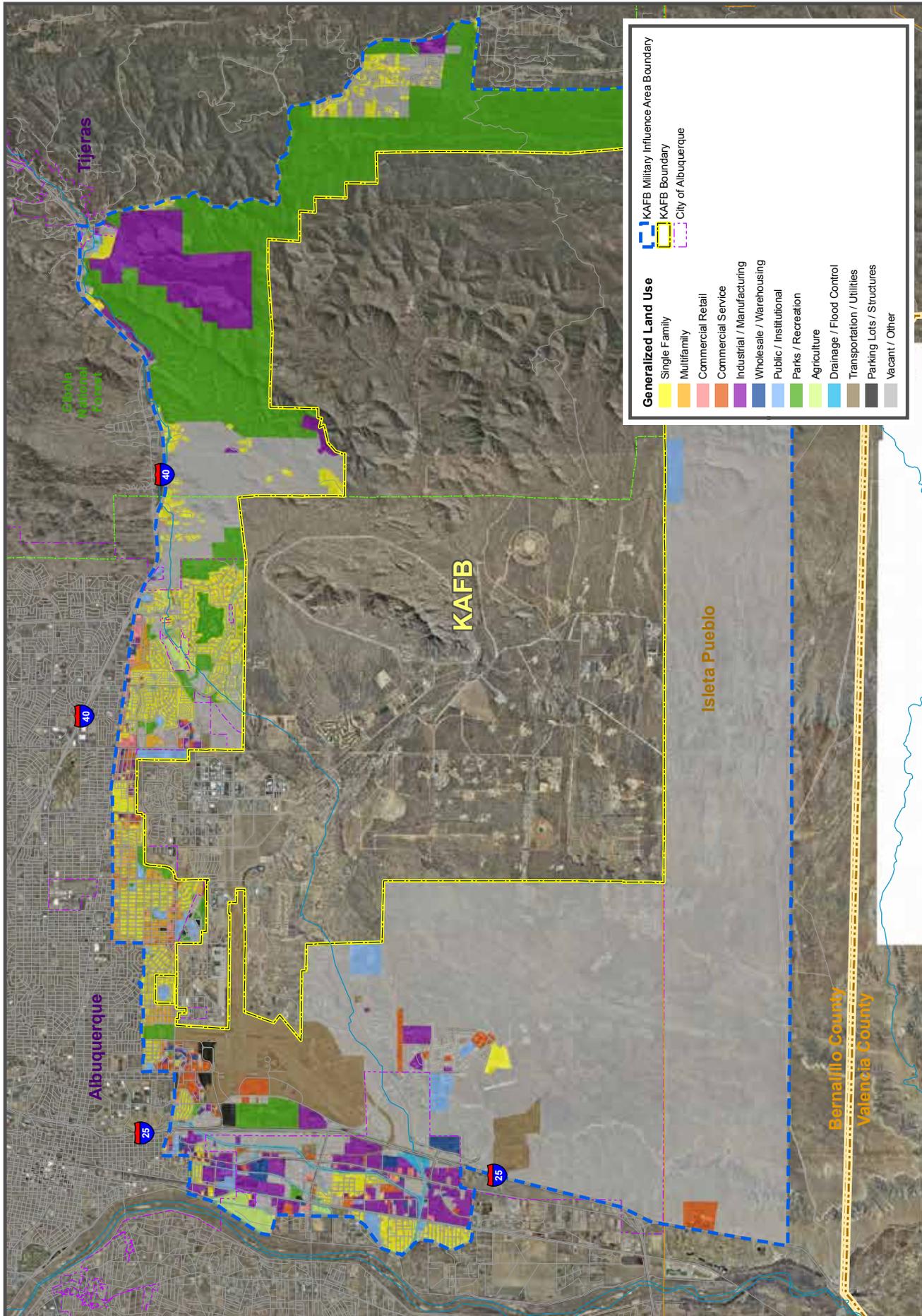


Figure 11: Generalized Land Use in the Military Influence Area
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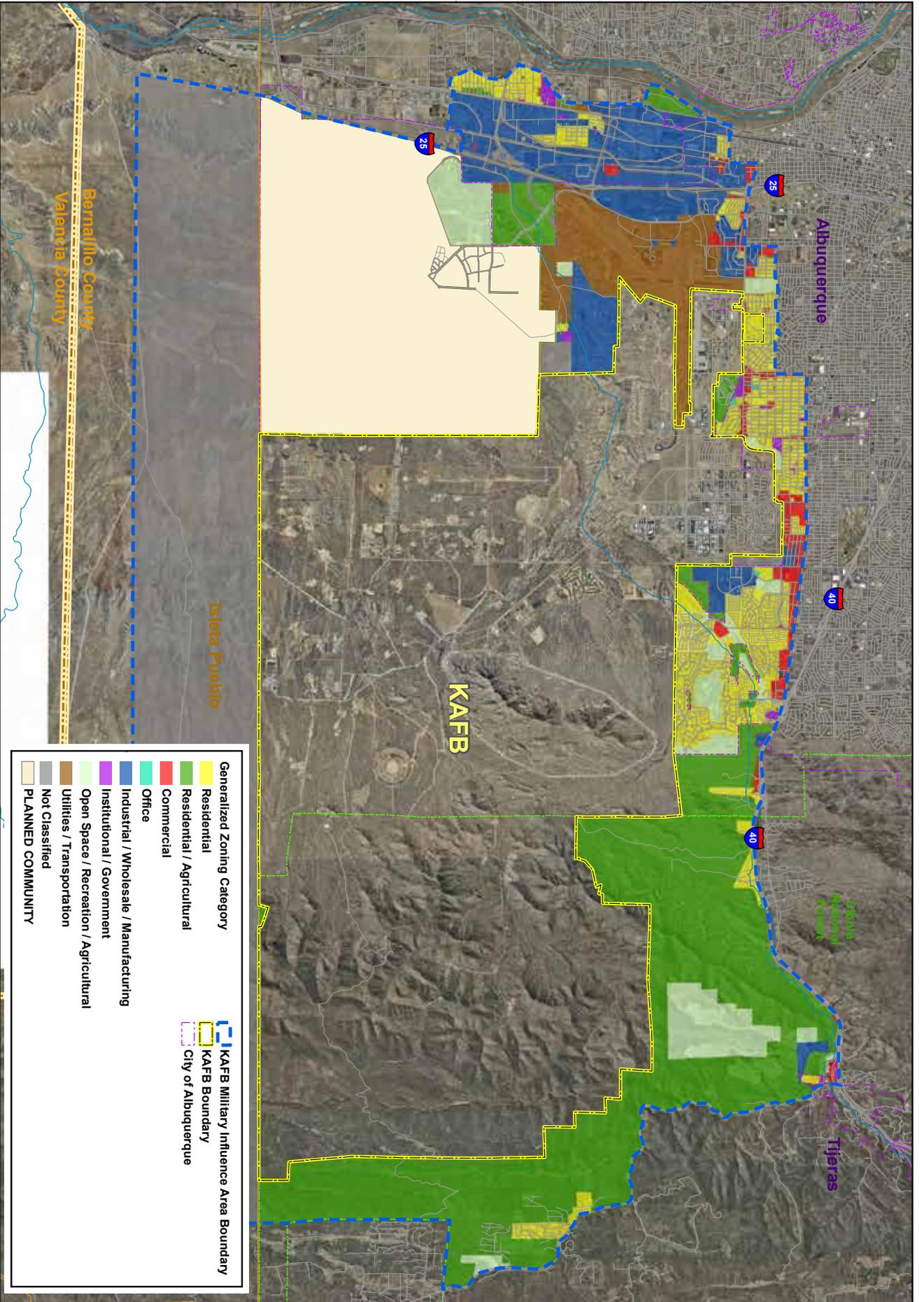


Figure 12: Generalized Zoning in the Military Influence Area

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3.5 Future Development Potential

Growth in the Albuquerque metropolitan area is projected to continue; so it is assumed that there may be new development or redevelopment occurring within the MIA. Therefore, any future development within the MIA should be evaluated in terms of the potential for incompatibility or encroachment affecting the operations at KAFB.

Such evaluation is not a specific element of the current development review process among the jurisdictions abutting KAFB. By acknowledging the MIA, land management agencies would be provided with a basis for monitoring development activities in that area through a different perspective (i.e., one that considers the influence of KAFB) and modifying regulations and procedures regarding changes and improvements for future development in the MIA.

Population and Employment Forecasts. Based on the 2035 Regional Forecast presented on the MRCOG website, population in Bernalillo County is projected to increase by 60 percent between 2008 and 2035, and employment is projected to increase by 50 percent over the same period. These projections reflect growth assumptions made before the effects of the nationwide recession beginning in 2008, but new projections of population as well as employment are anticipated to show a slower rate of growth for this region. Regardless, both population and employment growth in the region have the potential to stimulate additional land development in the MIA.

The MRCOG forecast also estimates the distribution of population growth within the Albuquerque metropolitan area. In general, the major population growth areas are projected to occur west of the Rio Grande and in the Mesa del Sol planned community located south and west of KAFB. All of Mesa del Sol lies within the MIA.

The distribution of employment is forecast by MRCOG to gravitate toward major job centers. Employment within KAFB is identified as one of the top five job centers in the metropolitan area. Significant employment growth in or near the MIA is expected to occur along the I-25 corridor, Mesa del Sol Center, and Sandia Science and Technology Park in the South Eubank corridor.

Plans, Zoning, and Land Use Controls. Most of the MIA lies within the jurisdictional coverage of the Albuquerque/Bernalillo County Comprehensive Plan (as amended in 2002). This Comprehensive Plan is designated a "Rank One Plan" which has the highest level of precedence among the many plans that cover the City and County. "Rank Two Plans" include facility/infrastructure plans and area plans. Airport Master Plans, for example, are Rank Two Plans. "Rank Three Plans" are Sector Development Plans pertaining to neighborhoods and urbanizing areas. The Rank Two and Rank Three Plans must be consistent with the Comprehensive Plan which is basically an overall development policies plan for the City of Albuquerque and Bernalillo County.

The Albuquerque/Bernalillo County Comprehensive Plan contains several policies which are applicable to the implementation of the JLUS. While aviation is briefly discussed in the plan document, it is in the context of the transportation section, and is focused on the

Albuquerque Sunport which serves as the primary commercial airport for the region, and which is also noted as a facility that is shared with KAFB. Albuquerque Sunport is identified as a major Activity Center with access to major and enhanced transit corridors. In fact, all of the five north-side gates for KAFB have access to major and enhanced transit corridors identified in the Comprehensive Plan.

Probably most relevant to the JLUS is the Comprehensive Plan goal "to protect the public health and welfare and enhance the quality of life by reducing noise and by preventing new land use/noise conflicts." The policy statement for that goal reads: "Noise considerations shall be integrated into the planning process so that future noise/land use conflicts are prevented." There are various techniques mentioned in the Comprehensive Plan to minimize noise/land use conflicts. The noise consideration is embodied by the zoning ordinances of both the City and County wherein there are noise overlay zones delineated around the airport runways of the Albuquerque Sunport. Land use within the 65 Ldn and 75 Ldn contours is regulated through the zoning process.

Lower ranking plans typically provide a basis for localized zoning and other regulatory ordinances. There are a number of Area Plans and Sector Development Plans that establish land use guidelines within the MIA. These plans are discussed elsewhere in this report and are listed in the References section.

Metropolitan Transportation Plan, Traffic Projections and Congestion. The current Metropolitan Transportation Plan (MTP) covers the Albuquerque Metropolitan Planning Area (AMPA) which is the designated region for transportation systems planning. The MTP is generally consistent with the Albuquerque/Bernalillo County Comprehensive Plan. KAFB and the MIA are included in this planning area.

The MRCOG collects in-depth congestion data on a series of major corridors around the AMPA. For purposes of this JLUS Implementation Project, a special evaluation was conducted by MRCOG staff concerning the current and future traffic congestion issues for the transportation corridors around KAFB (see Appendix B). The data presented in the evaluation include average weekday daily traffic volumes; peak period volume-to-capacity (V/C) ratios which compare the actual roadway usage to its intended carrying capacity; and travel delay data based on observed travel times along the corridor. The summary notes below describe KAFB roadway accessibility, and are based on corridor profiles developed as part of MRCOG's Congestion Management Process.

San Mateo Boulevard – Traffic volumes south of Central Avenue have dropped by approximately 40 percent between 1996 and 2010. This stretch of San Mateo operates well-below capacity. There are some delays between Zuni Road and Central Avenue during the AM and PM peak periods, although these delays may be unrelated to KAFB-travel. San Mateo is an access-controlled facility between Gibson Boulevard and I-40.

Wyoming Boulevard – Traffic volumes between Zuni Road and the KAFB Wyoming Gate have dropped by about 25 percent between 1996 and 2010. Northbound travel in the PM peak period between Zuni Road and the KAFB Wyoming Gate is slightly over capacity (the 2010 volume-to-capacity ratio is 1.01). There are also significant delays and low travel times compared to the posted speed along this segment (an average speed of 23 MPH along a segment with a speed limit of 40 MPH). Southbound travel in the AM peak period is relatively high but is below capacity (V/C ratio is 0.67). The data does not indicate any travel time delays.

Eubank Boulevard – Traffic volumes between the KAFB Eubank Gate and Southern Avenue have increased by 25 percent between 1996 and 2010 and by nearly 100 percent between Southern Avenue and Central Avenue. There are high volume-to-capacity ratios heading southbound during the AM peak period (V/C = 0.97) and heading northbound during the PM peak period (V/C = 0.93). Eubank experiences considerable delay in both directions during both peak periods between Southern Avenue and Central Avenue. Despite the high traffic volume there is no delay between Southern Avenue and the KAFB Eubank Gate in either peak period, according to MRCOG's 2010 survey.

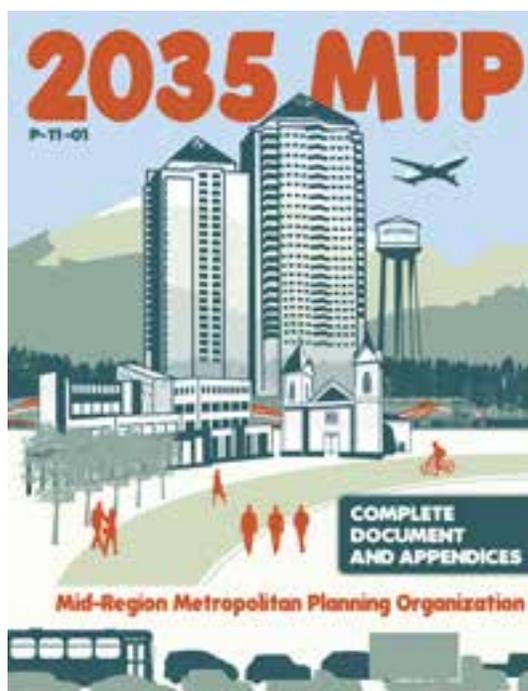
Louisiana Boulevard – Average daily volumes dropped by 25 percent between 1996 and 2010 between Kathryn Avenue to Gibson Boulevard. This stretch of Louisiana is well below capacity. There are significant traffic delays on southbound Louisiana during the AM peak between Kathryn Avenue and Gibson Boulevard. Traffic delay during other periods is minor.

Gibson Boulevard – Gibson Boulevard displays the greatest overall congestion levels in the immediate proximity of KAFB. Traffic volumes along Gibson have fallen between Carlisle Boulevard and Louisiana Boulevard between 1996 and 2010. The highest volume segment is between Carlisle and San Mateo, however the 2010 volume of 31,000 vehicles per day is 25 percent lower than 15 years ago. There are relatively high V/C ratios in the AM peak heading eastbound between I-25 and San Mateo. In the PM peak heading westbound, V/C ratios are high east of University, and Gibson Boulevard is at or above capacity between Girard and Carlisle. The westbound traffic on Gibson Boulevard between University Boulevard and Louisiana Boulevard experiences delay in the PM peak. There are moderate delays in the AM peak period heading east from Carlisle, as well as around I-25 in both directions along Gibson. Gibson Boulevard is an access-controlled facility with high speed limits. This ensures that Gibson remains a viable east-west facility in spite of high volume-to-capacity ratios with high speed limits. This ensures that Gibson remains a viable east-west facility in spite of high volume-to-capacity ratios.

along the Gibson Boulevard corridor during the peak commuting periods. However, due to its limited-access policy, Gibson is able to retain a reasonable level of performance despite its high volumes.

Wyoming Boulevard south of Zuni Road is over capacity during the PM peak and experiences moderate travel time delays. The approach to KAFB on Eubank Boulevard has seen a steady increase in travel, while other roadways have seen sometimes sharp declines in traffic volumes. The segment between Southern Avenue and the KAFB Eubank Gate is near capacity during the peak periods. Congestion on other roadways that approach KAFB experience congestion, although that congestion often occurs outside of the MIA; and KAFB-related travel is likely to be one factor among many contributing to delays or high traffic volumes.

Based on computer output from the MRCOG Travel Demand Model, depicting V/C ratios for year 2035 across the Albuquerque Metropolitan Planning Area, there is little to no severe congestion projected within the MIA. However, it is important to understand that these results are based on modeled rather than observed data. Actual data indicates more congestion in the MIA in 2010 than the model predicts in 2035. An interpretation of these data might be that conditions are not expected to worsen and create excessive levels of congestion in the coming decades. To the extent that KAFB-related travel may be affected by congestion, it is most likely to occur on the Interstate highways and the north-south arterial roadways from I-40 to KAFB.



Credit: Mid-Region Council of Governments

From a regional perspective, congestion levels in and around the MIA are not detrimental to roadway capacity. Figure 13 displays overall congestion levels in 2010 on major corridors serving KAFB. There are three specific areas where congestion is worth noting. MRCOG data indicates minor and moderate levels of congestion

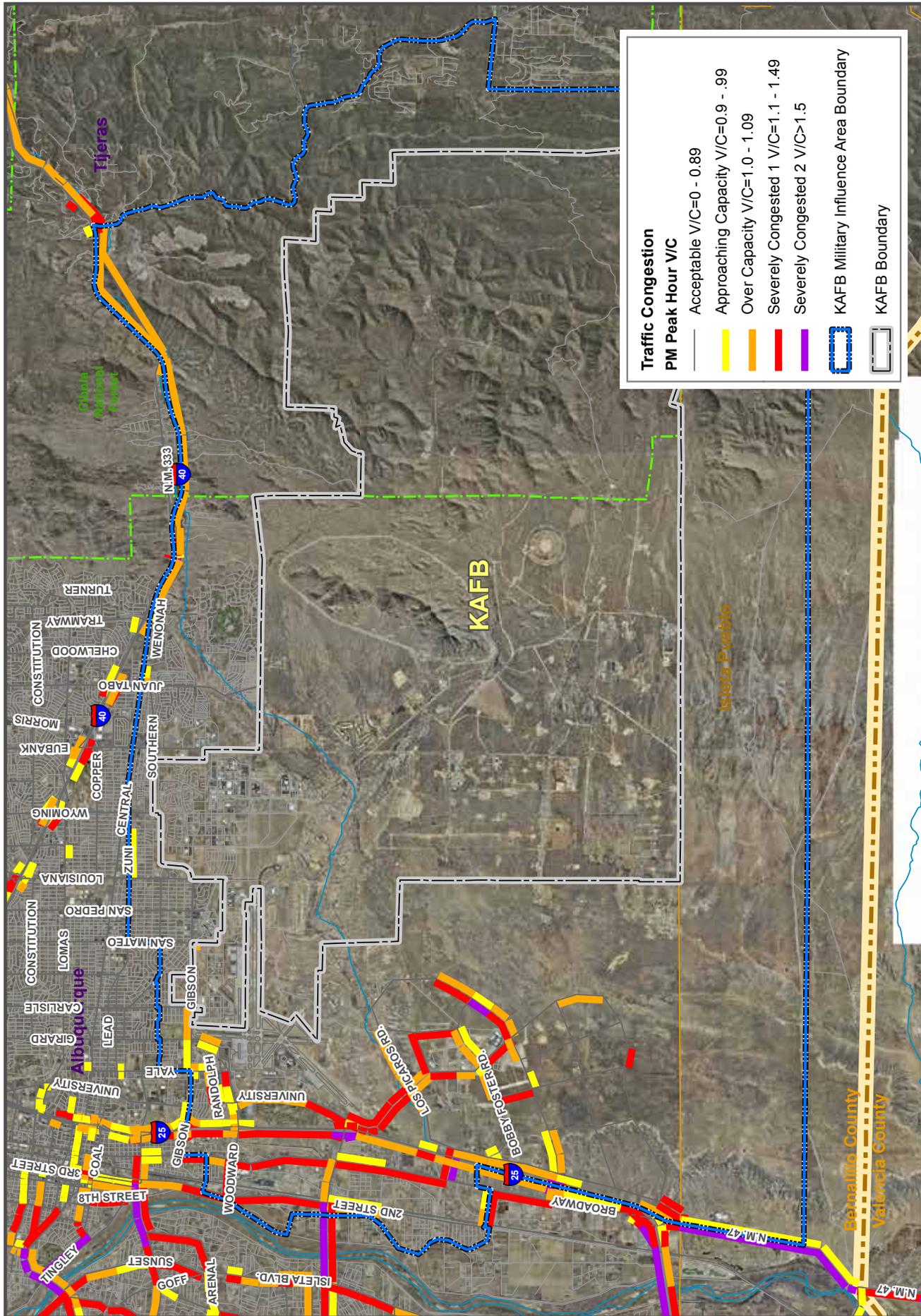


Figure 13: 2010 Traffic Congestion Levels in the Military Influence Area
 KAFB JLUS Implementation Project
 July 2013



Source: MRCOG

4.0 Development Review Process

4.1 Kirtland Air Force Base

Development on the Base. The process for land development on KAFB involves the organization of Base land into planning areas for the appropriate placement of new development according to mission. These areas, or districts, are distinct from one another due to operational functions or geographic characteristics. A mission may include functions such as research, testing, administration, flight line, explosives, training, dwelling, or recreation. Each district maintains an Area Development Plan (ADP). The ADP's provide a planning strategy to ensure that new missions, new buildings and new infrastructure are compatible with their surroundings, sustainable and compact, and are supported by efficient circulation. Developable areas are identified through the process of subtracting out in-grant areas, non-Air Force property, areas of explosive testing and training, and topographically or environmentally constrained areas. By analyzing developable areas within the ADPs, a determination can be made regarding the best possible scenarios for future development that satisfies the needs of tenants, while conforming to an overall Base vision. Currently, the Base contains seven planning districts:

West District – located south of Gibson, east of closed runway 17, and contains airfield and research, testing and development.

East District – located between San Mateo and Eubank, and the northern base boundary on the north. This district contains Sandia Labs, which is autonomous in its facilities planning and not covered by an ADP.

South Flight Line District – located south of Runway 08-26 (the primary east-west runway).

Manzano District – located adjacent to the north base boundary and civilian development in Four Hills and Juan Tabo Hills in the City of Albuquerque.

South District – borders Isleta Pueblo and La Semilla.

Arroyo Planning District – this district is defined as a no development or very low development district within Tijeras Arroyo.

Withdrawn District – this is an extensive mountainous land area that is withdrawn from the U. S. Forest Service located on the east side of the base.

There are two types of requirements for initiating the construction process on KAFB. Once a mission partner initiates a work request, the 377 Mission Support Group Civil Engineer Division (377 MSG/CE) evaluates the work request and determines the best way to execute the construction project. The review process involves engineering, environmental, safety, occupational health, and fire personnel. Examples of the Physical Requirements include repairing roads, renovating existing facilities, maintaining infrastructure, and constructing new facilities.

The other type of requirement is typically initiated by an off-base entity to request assistance in determining the feasibility of a new mission and whether KAFB has the capacity to accommodate the potential mission. Once it is determined that KAFB has the capacity to accommodate the new mission, the physical requirement for supporting the new mission is identified. The physical requirement is then defined; and planning proceeds through the same process as all other construction projects shown on the left side of the flow chart. Examples of potential missions may be requests for administrative space in facilities, land for training activities, or temporary use of facilities or land.

When a work request is approved and funding is secured, the facility and site design work is prepared in accordance with applicable codes and standards for the proposed construction project. At this point in the flow chart, public comment is invited and considered as part of the development process, particularly if actions are required under the National Environmental Policy Act (NEPA). The completed facility design must be approved by the Kirtland Air Force Base Facilities Board and construction begins when funding is obtained.

One of the consequences of developed lands within the Base is that KAFB is required to obtain a permit under the National Pollutant Discharge Elimination System (NPDES) for storm water discharges which may carry pollutants from the Base to waters of the U.S. (i.e., Rio Grande). This NPDES permit is issued by the U.S. Environmental Protection Agency under the Phase II requirements of the Clean Water Act, and is available to public review and comment whenever updated.

Energy Siting Clearinghouse. The Department of Defense (DoD), in 2010, created the Energy Siting Clearinghouse which was codified by Congress in Section 358 of the Ike Skelton National Defense Authorization Act of 2011. The Secretary of Defense established the Siting Clearinghouse to promote compatibility between energy independence and military capabilities. Also, the Siting Clearinghouse provides a single point of contact for industry, state and local governments, tribal governments, federal agencies, and private landowners to obtain energy development information and to review proposed energy projects. The clearinghouse process is designed to evaluate and mitigate potential impacts of energy projects on military test, training, and operational missions. Energy projects of particular concern are renewable energy installations such as large-scale wind turbines, solar towers, and overhead transmission lines. In addition to the tall height obstructions to low-level aircraft operations, energy generating facilities may cause electromagnetic interference and other issues for military electronic sensing devices such as radar systems. The DoD Energy Siting Clearinghouse process applies to projects whether they are located on or off military bases.

In regard to KAFB, which conducts military flight training exercises, implementation of the JLUS should include identification and assessment of any development of large-scale energy facilities both within the MIA and within special use airspace and low-level military aircraft training routes.

Airspace management is controlled by the Federal Aviation Administration, but can be delegated to the military for purposes of conducting training missions. Any new or modified airspace proposals require NEPA documentation. The identification of designated airspace corridors for KAFB missions should be made available to land use decision-making authorities in all levels of government in order to collaboratively evaluate the compatibility of land use underlying the affected airspace utilized for military training purposes. A formal notification and assessment process is not clarified in New Mexico for large-scale energy facilities within local government or State jurisdictions impacted by military aircraft operations. However, communication protocols such as those included in the MOUs prepared for this JLUS Implementation Project could be executed to establish a military compatibility evaluation process for energy development facilities.

4.2 City of Albuquerque

Planning Department. The Albuquerque City Planning Department provides a full range of services from processing building permits to developing long range, regional plans and policies. The current structure of the City Planning Department is comprised of six divisions: AGIS (Albuquerque Geographic Information System), Building and Safety, Code Enforcement, Development Review Services, Office of Neighborhood Coordination, and Urban Design and Development. The Development Review Services Division administers the Planning Department's "One Stop Shop" which is the central location for initial contact with the City in order to obtain information regarding the development review and approval process.

Applications for various types of development requests are initiated and transmitted through the planning staff to an appropriate board or commission for public hearing and authorization to proceed with the development activity. In general, applications for land subdivisions are heard by the Development Review Board and applications for other land use activities are sent to the Environmental Planning Commission or the Landmarks and Urban Conservation Commission. In addition, applications for public infrastructure plans are transmitted to the Design Review/Construction Section for review and acceptance of public infrastructure installed within City right-of-way and easements.

Development Review Process. There are several resources that provide guidance for reviewing applications for proposed development activities. One of the principal resource documents in the Planning Department is the Development Process Manual (DPM) which clarifies the development process from the initial proposal to project completion. Its purpose is to carry out the goals and policies of the Comprehensive Plan and other relevant adopted plans of the City. Any legislation regulating development (i.e., zoning and subdivision ordinances) is published in the Revised Ordinances for the City. The DPM is intended to be a reference manual for City staff, property owners, and developers and is comprised of two major components: Procedures (Volume I) and Design Criteria (Volume II). In general, the development process requires analysis of land characteristics, appropriateness of zoning, required planning elements, infrastructure services, construction permits, and special conditions affecting the

development proposal. Revisions, for purposes of the JLUS, could be incorporated into the DPM in order to identify the MIA and provide administrative guidelines for specialized review of development and related proposals within the MIA.

Multi-Agency Review. The formal application process for major development proposals is initiated through the City's One Stop Shop where an application and supporting materials are deemed complete and then distributed to various agencies outside the City government for their review and comment prior to a public hearing conducted by the appropriate board or commission. Major development proposals might include zone changes, site plans, annexations, actions of sector plans, or large subdivisions of land. Any written comments received from outside agencies are included with the information packet for consideration at the public hearing. The multi-agency review process provides an opportunity for comments regarding land use compatibility with KAFB, although such comments have been inconsistent in the past.

Aviation Department. The Aviation Department is a department of the City of Albuquerque, responsible for the management, operations, and development at the airport. The Aviation Director is the administrator of the Department and reports directly to the Mayor and City Council. The Airport Master Plan for Albuquerque Sunport is the guiding plan for airport development and provides forecasts of passengers, cargo, based aircraft, and operations which serve as a basis for future planning and priorities for development of airport facilities. The Aviation Department is financially accounted for as an enterprise fund of the City and maintains a Capital Development Program for the design, construction, and management of capital projects and airport programs.

The Airport Master Plan includes airport airspace drawings which illustrate the three-dimensional imaginary surface areas assigned to each of the airport runways in accordance with the FAR Part 77 guidelines. Part 77 imaginary surfaces are utilized to protect approaching and departing aircraft from the hazards of obstructions to the airspace needs for the airport. The airport airspace drawings delineate two-dimensional footprints representing the three-dimensional zones comprised of sloping "imaginary surfaces." For purposes of development review, the Aviation Department could apply the airport airspace drawings provided in the Airport Master Plan in order to identify potential encroachments to the defined airspace prior to construction of tall structures near the airport; and the developers can be advised by the Aviation Department to file a notice to the Federal Aviation Administration (FAA Form 7460-1 shown in Appendix C) regarding the proposed construction or alteration of structures. Filing can be done over the internet and the FAA will make the official determination as to whether or not the proposed construction presents a hazard to air navigation in the vicinity of the Albuquerque Sunport.

4.3 Bernalillo County

Zoning, Building and Planning Department. The Zoning, Building and Planning Department administers the County's development-related regulations, including the zoning and subdivision ordinances, building codes, inspections and related permits,

business licenses, impact fees, and other regulatory standards. The Zoning Section reviews requests for zoning changes and issues permits as needed. The Building Section is responsible for reviewing building plans, issuing appropriate permits and inspecting building progress. The Planning Section is responsible for a wide range of short and long-term development functions, including administration of land use ordinances (i.e., subdivision, zoning and impact fees), and drafting plans, studies and ordinances. The Planning Section processes all current land use cases (i.e., zone changes/Special Use Permits, master plans, plan amendments, and sector plans) for the County.

Multi-Agency Review. The Zoning, Building and Planning Department coordinates the development review and approval process, facilitates public hearings, and provides staff support for the County Planning Commission, the County Development Review Authority, and the Board of County Commissioners. Development review for land use cases may include requests for outside review and comments which are used for consideration of major development proposals.

4.4 State of New Mexico

State Government Role. State government agencies generally do not have land use regulatory powers over local jurisdictions; but the State does impose land use related standards concerning development impacts on air and water quality, conformance to state and federal transportation systems, and installation of large-scale utility infrastructure. State agencies typically administer and enforce both federal and state regulations. The State may also participate indirectly in local land development activities by providing funding assistance for capital outlay projects that benefit local communities. County governments are required by State Statute to include several state agencies in reviewing certain types of land subdivision as an advisory body to the

County Commissions. Consequently, a local development review, under certain circumstances, may invite or request the review and comment of a state government agency.

Of relevance to the JLUS is a Governor's Executive Order issued in 2004 (see Appendix D) concerning land-use planning and military installation compatibility. This Executive Order (E.O. 2004-046) directed appropriate State agencies involved in land-use planning to ensure compatible development with military installations in New Mexico. The E.O. also recommended that local governments adopt land-use plans and enforce regulations to ensure compatible development near military installations. Although this E.O. was enacted during a previous administration, it has not been rescinded to date and can be referenced as advisory guidelines for governmental jurisdictions around military establishments.

State Land Office. The SLO is responsible for managing and protecting state trust lands which were granted to New Mexico by the U.S. Congress. State trust lands are intended to generate revenues primarily to support public education institutions; but environmental protection and the sustainability of natural resources are also important objectives in maintaining the trust. Trust land resources include both surface and subsurface lands that are well distributed throughout the State.

There are noteworthy state trust lands that exist within the MIA. These trust lands include the Mesa del Sol planned community, La Semilla, and land parcels within the Sandia Science and Technology Park. Although trust lands are generally exempt from local land use regulations, the SLO has worked in collaboration with City of Albuquerque and KAFB and other stakeholders to plan and develop these trust lands in order to be compatible with the operations and missions of KAFB. These planned areas are subject to the development review process of the City of Albuquerque as they build out.



Two 58 SO Helos reach aviation milestone, Credit: www.kirtland.af.mil/photos

The SLO is also committed to consult with the KAFB regarding development and changes of land use on trust lands within the MIA in the future.

4.5 Pueblo of Isleta

Tribal Governance. The Isleta Pueblo governing structure includes Executive, Legislative and Judicial Branches. In accordance with the Pueblo of Isleta Tribal Constitution, the Pueblo is administered by a Governor, First and Second Lieutenant Governors, Sheriff and Under-Sheriff, Secretary and Treasurer. The Tribal Council is the Legislative Branch of the Pueblo and generally ensures that all Tribal members are accorded the opportunity to participate in the programs, activities, and economic resources of the Tribe. The Tribal Council has the authority to enact various codes, ordinances and resolutions that may pertain to land development issues on the reservation. The Judicial Branch includes a Tribal Court and an Appellate Court. Tribal jurisdiction is exercised within established reservation boundaries.

Tribal Land Management. Much like the local governments in New Mexico, the Pueblo of Isleta has established a departmental structure to provide various land management services to the Tribe. Key departments that influence land development on the reservation include Administration, Housing Authority, Natural Resources, Public Works, Parks and Recreation, and the Police and Fire Departments. These departments are responsible for developing and carrying out programs and projects subject to the oversight and authorization by the Governor and Tribal Council.

4.6 Cibola National Forest

Sandia Ranger District. The Sandia Ranger District is an administrative

unit of the Cibola National Forest in the Sandia-Manzano Mountains on the east side of KAFB (refer to Figure 9 in Part 3.3). These forest lands are subject to intensive planning and management to reduce fuel loads and the risk of wildfire, to enhance wildlife habitat and ecosystem health, and to provide public recreational opportunities. The wildland/urban interface is a particular issue of the forest health program as residential and non-residential development increases in the Sandia-Manzano mountain area. Also, the west front of the mountain range is a primary avian flyway and migratory route for a variety of birds, and there are many collaborative efforts to study and protect these bird populations along the eastern boundary of KAFB.

The Cibola National Forest Land and Resource Management Plan (Forest Plan) provides guidance for the long-range planning and forest management process conducted by the Sandia Ranger District. The Forest Plan provides management policies and prescriptions for multiple-use and sustainable forest lands within the Sandia Ranger District and the Sandia Mountain Wilderness. Activities and projects are planned, budgeted, and implemented to carry out the management prescriptions from the Forest Plan applicable to the Sandia Ranger District. The management area for the Sandia Ranger District is adjacent to KAFB; and the emphasis is on providing opportunities for recreation, and maintaining wildlife populations and ecosystem health.

5.0 Land Development Controls

5.1 Municipalities

City of Albuquerque

1. Zoning and Subdivision Regulations. Lands within the MIA that are under the jurisdiction of the City of Albuquerque are regulated through zoning and subdivision ordinances. Most of the land within the MIA has been subdivided, but there are relatively large tracts that may be subdivided in the future. Ideally, in terms of compatibility with KAFB, larger minimum lot sizes should be maintained and encouraged in order to avoid greater densities of development and population concentrations than those which currently exists, particularly within airport-related safety zones around airport runways. Zoning regulations should also promote lower density development in the MIA, particularly residential development, and to minimize new facilities and structures which provide places of assembly or large gatherings of population. Height limits for tall structures may also be imposed by FAA (Federal Aviation Administration) in the MIA, based on proximity to individual runways of the Albuquerque Sunport.

City zoning ordinance amendments have been proposed to reduce light pollution, but such regulations have not been enacted to date. Since the JLUS recommends the adoption of light controls to reduce light pollution around KAFB, model standards for dark sky regulations have been compiled for purposes of the JLUS as a consideration for zoning ordinance amendment or as an independent regulatory ordinance for the City (see Appendix E). These proposed dark sky regulations are similar to the unadopted City zoning ordinance amendments noted above.

Albuquerque enforces a Noise Control Ordinance [§ 9-9-1 to 9-9-99] which includes a section on aircraft-related noise [9-9-10]. The intent of this section, however, is to regulate the noise levels produced in the testing, maintenance, and repair of aircraft engines and aircraft during nighttime hours. Aircraft landing, takeoff, or moving on ground surface at an airport are exempt from the provisions of this section.

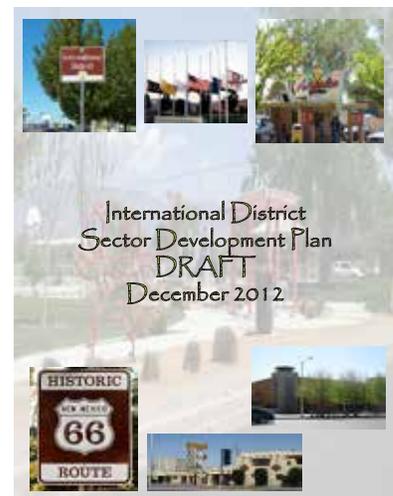
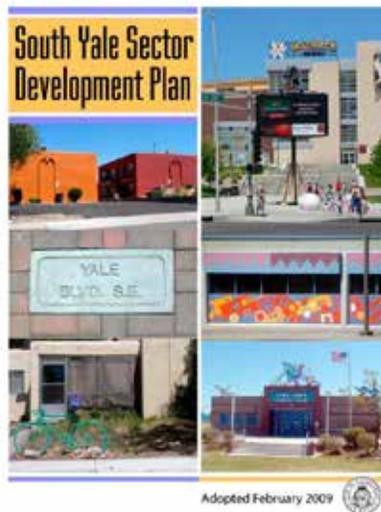
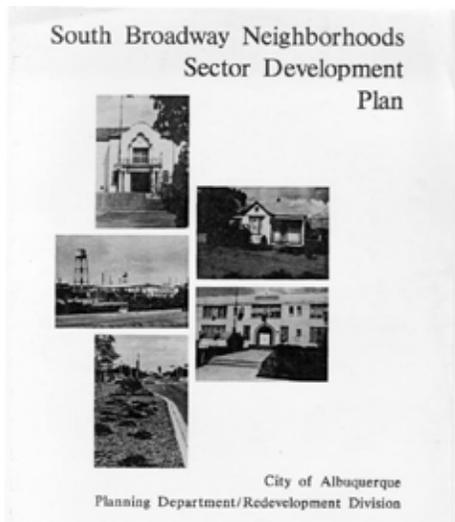
2. Sector Development Plans. The planning framework for the City of Albuquerque involves a hierarchy of plans. The Comprehensive Plan is a rank one plan; area and facility plans

are rank two plans; and sector development, neighborhood, and corridor plans are rank three plans. All plans must be compatible with higher ranking plans. For purposes of promoting compatibility of land use within the MIA, sector development plans provide policy and regulatory guidance for future development within the boundaries established for the sector planning process. Sector development plans typically identify areawide goals for development and recommended land use, and design and development standards for the planning area to ensure particular development outcomes. A general review of the sector development plans within the MIA has not revealed any obvious or potential issues of incompatibility. The key sector plans which cover areas within the MIA (see Appendix F) include the following:

- a. East Gateway Sector Development Plan (2010). This sector planning area lies between I-40 and KAFB, and east of Wyoming Boulevard to the eastern City limits. Travel corridors are emphasized in this sector plan, particularly Central Avenue (Route 66) and Wyoming, Eubank, and Juan Tabo Boulevards. This sector plan also emphasizes the coordination of land use and transportation through recommendations for public projects and regulatory guidelines. An alternative energy demonstration project, such as small scale wind turbines to capture the east canyon winds, is suggested in this plan, if compatible with an urban environment. Although the sector plan includes street lighting proposals to improve safety and visibility, dark sky objectives are not mentioned.
- b. South Broadway Sector Development Plan (1986). The planning area for this sector plan is situated west of the I-25 Interstate Highway to the railroad tracks from Coal Avenue on the north to Woodward on the south. The principal goal of this sector plan is to redevelop and rehabilitate an existing developed area just south of downtown Albuquerque. This area contains old and historic structures and mixed-use neighborhoods with

dilapidated housing, businesses, and infrastructure. It is currently designated as a Metropolitan Redevelopment Area. The sector plan calls for stabilization of land use patterns appropriate to the area's character. There is a disorderly mixture of commercial, industrial, and low-density residential in this area. The overall direction of the sector plan is to upgrade the local infrastructure, expand aid programs for low income residents, and improve the zoning categories in order to preserve the low-density character of residential development with non-residential development directed to appropriate locations.

- c. South Yale Sector Development Plan (2009). The South Yale area includes the abutting neighborhoods along Yale Boulevard north of Gibson Boulevard. Yale Boulevard is a corridor that serves as an entryway into the City from the Albuquerque Sunport terminal. The South Yale planning area includes large sports arenas (located outside the MIA) as well as extensive areas of vacant lands. The goals for this sector planning area focus on improved transportation facilities, pedestrian friendly neighborhoods, increased commercial and business activity, and attractions for tourists and sports enthusiasts. Design and regulatory guidelines are presented in the sector plan.
- d. International District Sector Development Plan. This sector development plan is currently in draft form and will be considered for adoption in the near future. The planning area for the International District covers a relatively large area abutting KAFB on the north side and extending further north to Lomas Boulevard, between San Mateo and Wyoming Boulevards. The planning area is predominantly residential with commercial corridors along major streets. This sector plan proposes new zoning regulations and development standards for the planning area with the intent of creating more compact, mixed use, and walkable neighborhood environments.



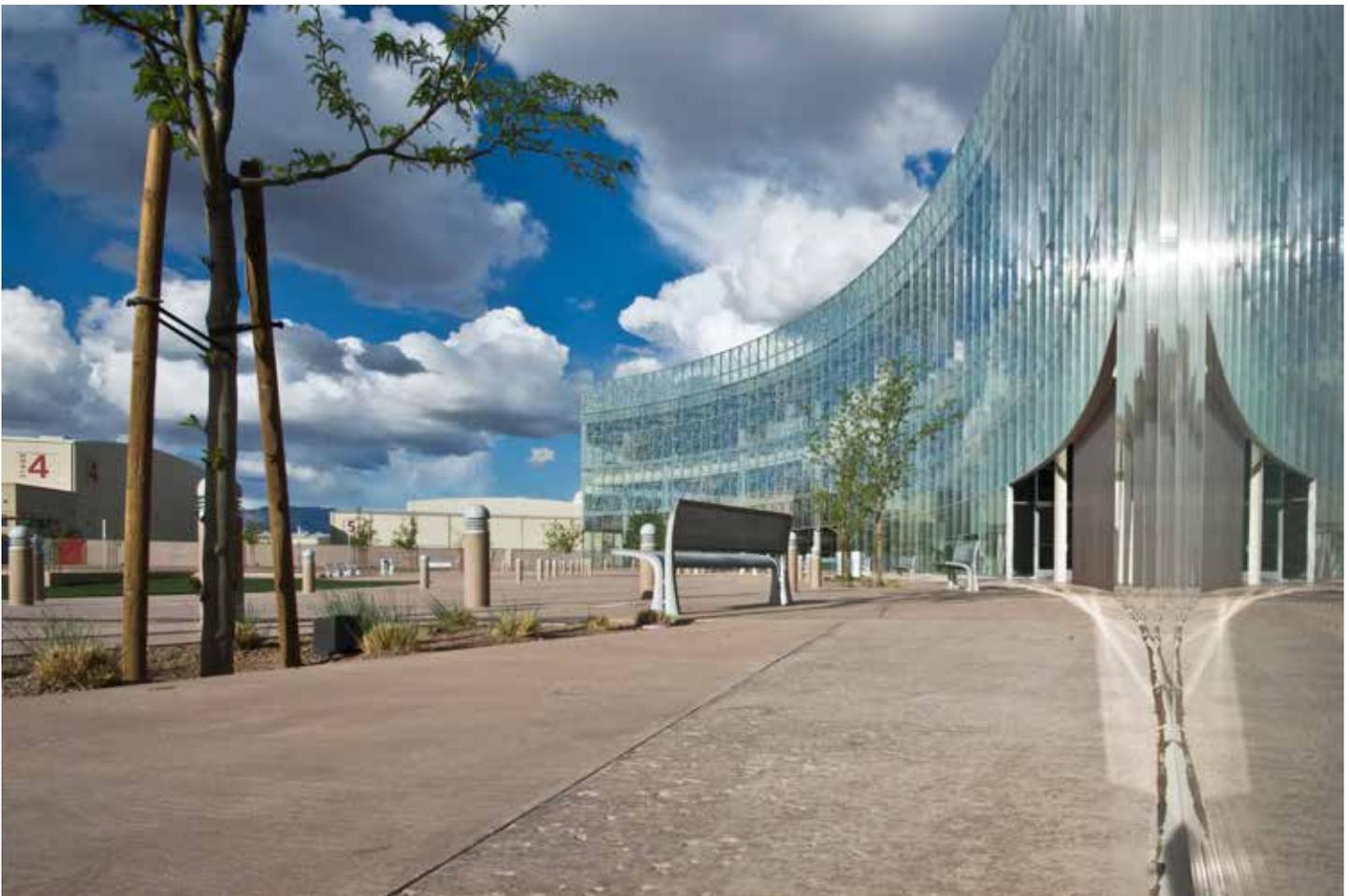
City of Albuquerque Sector Development Plans, Credit: www.cabq.gov/planning

3. **Mesa del Sol.** A new planned community, called Mesa del Sol, is being developed south of the Albuquerque Sunport and KAFB on Albuquerque's southeast mesa. Most of Mesa del Sol is held by the SLO in trust for the University of New Mexico and the public schools. A Level A Community Master Plan, covering almost 13,000 acres, approved and adopted by the City of Albuquerque in 2005, controls the pattern and distribution of development at Mesa del Sol. The development of land and infrastructure is controlled by the master plan itself, while zoning administration and enforcement is maintained by the City of Albuquerque.

Mesa del Sol was designed as a mixed use development to include villages, community centers, employment centers, recreational facilities, and open space areas. Although the eastern boundary of Mesa del Sol abuts KAFB, a tract of land, known as La Semilla, was established as a buffer zone and planned under a separate master plan completed in 2000 by the SLO. La Semilla is State Trust Land that is leased to the DOE to serve as a buffer zone between Mesa del Sol and

KAFB facilities. The Master Plan for La Semilla proposes land uses that may include a renewable resource research park, an environmental education campus, and an agriculture and rangeland education demonstration site.

There are a number of research and testing facilities operated by Sandia National Laboratories as well as the U.S. Air Force and Department of Energy located to the east of Mesa del Sol. To ensure compatibility with KAFB, a number of measures were put in place as part of the development process applicable to Mesa del Sol. For example, developers of property in the Mesa del Sol community are required to sign real estate disclosure statements acknowledging aircraft activity and noise impacts resulting from operations at KAFB. Also, development within specified KAFB impact areas may be subject to noise and aviation easement agreements with a "covenant not to sue" as a condition of development. Preserving dark skies at Mesa del Sol will be accomplished through design requirements and control of outdoor lighting.



The Aperture Center at Mesa del Sol, Credit: Flickr user Mitchell Tillison, www.flicker.com

4. **Airport-related Safety Zones.** There are three distinct types of airport-related safety zones associated with the Albuquerque Sunport. The lands within these airport safety zones are, or should be, subject to special review and evaluation supported by regulatory standards or guidelines to avoid incompatible land uses and encroachment to aircraft operations and military functions at the airport. The airport-related safety zones are as follows:

a. **Noise Impact Zones.** The Albuquerque Code of Ordinances designates Airport Protection Overlay Zones [Section 14-16-2-28]. The purpose of the airport protection overlay zones is to restrict development sensitive to noise exposure and to encourage sound attenuation in buildings by utilizing construction materials and designs to minimize interior noise levels in buildings. The overlay zones are delineated on the zoning atlas as Ldn contours with a noise rating of 75 Ldn and higher for zone AP-1 and a noise rating of 65 to 75 Ldn for zone AP-2. The 65 Ldn contour is shown previously in Figure 2, Part 1.3, which encompasses both the AP-1 and AP-2 overlay zones combined. Permissive and conditional land uses are listed for the areas within the AP-1 and AP-2 overlay districts. Suggested land use compatibility guidelines for military airport noise zones are set out in Department of Defense Instruction 4165.57, "Air Installations Compatible Use Zones." Appendix G provides a table of recommended land use compatibility in noise zones taken from DoD Instruction 4165.57 with ratings from 65 to 85+ Ldn (DNL). This table may be used as a reference for local governments to consider in their planning process for regulating development in noise zones around airports.

b. **Airport Runway Approach/Departure Corridors.** The JLUS identified Airport Runway CZs and APZs extending from certain runways (refer to Figure 1 in Part 1.3). The affected runway ends are on Runway 08/26 (east-west), Runway 03 (southwest), and Runway 30 (southeast). There are no land use regulations in the Albuquerque zoning ordinance pertaining specifically to CZs and APZs. However, there are RPZs identified in the *Albuquerque International Sunport - Airport Master Plan* that define the restricted area at the end of each runway.

For development review purposes, the runway approach surfaces as delineated in the Airport Master Plan essentially describe an overflight area that may be affected by underlying land use and development. This overflight area can be referred to as the Runway Approach/Departure Corridor beginning at the end of each runway. For purposes of implementing the JLUS, such approach/departure corridors can be referenced as indeterminate (i.e. lacking distinct boundaries) areas for development review and advisory comments about potential incompatibility with the airport.

c. **Airspace Protection Zones.** The City of Albuquerque Code of Ordinances includes the Albuquerque Airport Zoning Ordinance [§14-15-1 et seq] which applies to both Albuquerque Sunport and Double Eagle II Airport. This ordinance creates a system of regulatory zones around airport

runways to impose height limitations and use restrictions for land within such zones. The ordinance requires permits for potential obstructions to airspace as defined by the airport zones. The regulated zones in the Albuquerque Airport Zoning Ordinance include: Instrument Approach Zones, Noninstrument Approach Zones, Transition Zones, Horizontal Zones and Conical Zones. The areas underlying these zones should be subject to airspace protection criteria to avoid development that may pose hazards to air flights. These airport zones are not delineated on the Albuquerque zoning maps, so development in these zones is not regulated under the zoning ordinance. Furthermore, the Albuquerque Airport Zoning Ordinance is not being administered and enforced.

The *Albuquerque International Sunport - Airport Master Plan*, however, does have airport layout plans with maps that depict airspace requirements in accordance with FAR Part 77, including tables for determining potential obstructions. The "Airport Airspace Drawings" in the Airport Master Plan include the two-dimensional footprints for the three-dimensional imaginary surfaces related to each runway and are intended to aid local governments in determining if proposed development might create a hazard to aircraft. These maps and airspace obstruction tables can be referenced by the City's Planning and Aviation Departments whenever any development is proposed within these zones. Regardless, development proposed within these airspace protection zones should be reviewed for potential airspace obstructions; and the developer may be required to file a Notice of Proposed Construction or Alteration (FAA Form 7460-1 is shown in Appendix C) for a determination by FAA regarding airspace hazards.

City of Belen

1. **Zoning and Subdivision Regulations.** The City of Belen is located in a Secondary Tier Planning Area where the U.S. Air Force is proposing to utilize the Belen Municipal Airport for training exercises that involve landing/takeoff operations of C-130 aircraft from KAFB. This military activity however is dependent on major improvements to the Belen airport, such as a new crosswind runway. The Belen airport property, which is owned and managed by the City, is within the municipal limits of Belen. However, most of the surrounding lands on the southern, western, and northern sides of the airport are under the jurisdiction of Valencia County.

Belen exercises its statutory authority to adopt and enforce zoning and subdivision ordinances. Belen's zoning jurisdiction is limited to the territory within city limits; so the airport is zoned as a Special Use District which allows airports and airport-related services, but also allows other uses that may not be compatible to airport activities. Recently annexed lands around the airport have been zoned C-1 for general commercial use such as retailing, financial, and personal services that may or may not be compatible or associated with the nearby airport.

Belen subdivision regulations pertain to a planning and platting jurisdiction, both within the city limits plus all lands

outside the city boundary for a radius of three miles. The planning and platting jurisdiction outside the Belen city limits is a concurrent jurisdiction with Valencia County for purposes of joint review and approval of proposed land subdivisions

2. Strategic Growth Plan. Belen adopted a Strategic Growth Plan in 2010 that identifies the “Airport Center” as one of five activity centers in the Belen area. The goal for the Airport Center is to make certain that surrounding land uses are compatible with airport operations. The Strategic Growth Plan recommends that an agreement between the City of Belen and Valencia County be formalized to ensure compatible and coordinated development of land surrounding the airport.

A draft agreement has been prepared in the form of a MOU (see Appendix H) in which airport overlay zones are referenced along with zoning and subdivision regulations imposed on the lands in and around the airport. In addition, the MOU calls for the creation of a special airport zoning map delineating the airport overlay zones; and that the City and County collaborate on the development and adoption of a joint airport area master plan for Belen Alexander Municipal Airport. The MOU also calls for collaboration on the development and adoption of outdoor lighting regulations to achieve dark sky protection from light pollution around the airport.

3. Airport Zoning Regulations. Land uses are regulated within Belen city limits by a zoning ordinance; and land use activities in the vicinity of the airport that might affect aircraft operations are also controlled by the City Airport Ordinance. The Belen Municipal Code includes airport zoning regulations that identify approach zones, transitional zones, horizontal zones and conical zones relative to the airport runway. These zones are essentially in compliance with the FAR Part 77 regulations established by the FAA.

5.2 Counties

Bernalillo County

1. Zoning and Subdivision Regulations. Areas under Bernalillo County Jurisdiction are generally located on the western and eastern sides of the MIA. Also, there are scattered and disconnected areas under the jurisdiction of Bernalillo County throughout the western, northern, and eastern portions of the MIA. Some of the isolated areas under County jurisdiction are completely or nearly surrounded by the incorporated lands of the City of Albuquerque or Cibola National Forest lands. As in all municipalities, the County has the power to regulate land use through zoning and subdivision ordinances. As referenced previously in this report, Figure 11 in Part 3.4 shows the generalized zoning classifications from combined City and County zoning maps.

Bernalillo County administers a comprehensive zoning ordinance that regulates land use in all unincorporated areas of the County. One of the zoning categories in the County zoning ordinance is the Airport Protection Overlay

Zone that includes two overlay zones, AP-1 and AP-2. These overlay zones regulate land use within noise contours that are essentially identical to the City of Albuquerque Airport Protection Overlay Zones described previously in Part 5.1 above. The Bernalillo County zoning code also includes environmental regulations specifically for aircraft activity [Sec. 30-127]. These regulations relate to excessive sound from aircraft and jet engine testing, with certain exemptions.

Regarding the platting of lands within the MIA, the larger tracts of land are often within the jurisdiction of the County, with a potential for future subdivision and new development at higher densities. The subdivision regulations of Bernalillo County include requirements for disclosure statements for new subdivisions; and airport are noted under “adverse or unusual conditions” including disclosure of proximity to airports [Ch. 74, Article VIII].

Zoning and subdivision of lands underlying the airport safety zones for Albuquerque Sunport discussed previously should be subject to special consideration for reviewing certain types of development proposed in the County. In particular, the Airport Runway Approach/Departure Corridors extending from Albuquerque Sunport runways are key areas where zoning and subdivision actions should be reviewed for issues of incompatibility with KAFB.

2. Area and Sector Development Plans. The planning framework for Bernalillo County involves a hierarchy of plans, similar to the City of Albuquerque, based on the Albuquerque/Bernalillo County Comprehensive Plan. Area plans are rank two plans and sector development plans are rank three plans. These types of plans provide policy and regulatory guidance for future development within the MIA. Bernalillo County area and sector development plans which cover areas within the MIA include the following:

a) East Mountain Area Plan (2006). The East Mountain Area Plan covers a large mountainous area that generally wraps around the eastern side of KAFB. The goals for this plan emphasize the rural character of the area and the protection of natural resources such as open space, ecosystems, scenic views, quiet ambience, low population density, limited vehicle traffic, and neighborhood-scale businesses. While the majority of land in this planning area is zoned for residential uses, future development will be constrained by the limitations of water resources. The Cibola National Forest provides a buffer zone between developed areas along Highway 14, the north-south highway that bisects the planning area, and the eastern boundary of KAFB. Land subdivisions with trail development potential will be guided by the East Mountain Trail and Bikeways Master Plan. Dark skies are preserved in this planning area due to the adoption of the Light Pollution Ordinance for the East Mountain Area in 1991.

b) International Sunport Station Area Sector Development Plan (2009). This sector development plan covers an area surrounding a commuter rail station near the intersection of Second Street and Rio Bravo Boulevard in the South Valley of Bernalillo County. While the majority of land use in this

planning area is vacant, current land use around the rail station is comprised of single-family residential, scattered commercial development along Rio Bravo, and several industrial sites. Most of the land is currently zoned for industrial use. The planning area is situated north of the lands that are overlain by the Airport Runway Approach/Departure Corridor for Runway 03 at Albuquerque Sunport. In fact, this rail station provides bus service to the airport. The station area plan envisions an activity center for the South Valley, containing a mix of residential, retail, and employment opportunities. Future development would be guided by the principles of “transit oriented development” which focuses on the integration of land use and transportation, compact development, mixed use, and pedestrian-scale design.

- 3. Airport-related requirements.** The same airport-related issues impact Bernalillo County as the City of Albuquerque which is discussed previously in Part 5.1 above. The County should be cognizant of the three types of airport-related safety zones (i.e., noise impact zones, Airport Runway Approach/Departure Corridors, and airspace protection zones) associated with the Albuquerque Sunport. The lands underlying these airport-related safety zones should be subject to special regulatory review and standards to avoid incompatible land uses and encroachment to military aircraft operations at the airport.
- 4. Light Pollution Ordinance.** Bernalillo County administers two areawide lighting ordinances. One is in the MIA, the East Mountain Area Light Pollution Ordinance [Sec. 30-201 to 30-240, Bernalillo County Code of Ordinances] which is essentially a dark sky ordinance covering the entire eastern portion of the County up to the Cibola National Forest Land. All outdoor lighting fixtures in the East Mountain Area are required to comply with the light pollution ordinance within five years (by March 5, 1996) of the effective date of the ordinance.

Valencia County

- 1. Zoning and Subdivision Regulations.** Valencia County is located directly south of Bernalillo County and has the power to regulate land use through zoning and subdivision ordinances. Valencia County is the location of a Secondary Tier Planning Area where the U.S. Air Force is proposing to utilize the Belen Municipal Airport for pilot training exercises. Valencia County has zoning jurisdiction around the Belen Airport outside of the Belen City Limits; and participates in concurrent review of subdivisions within a three-mile radius of the City limits.
- 2. Airport Encroachment Overlay District.** Valencia County has an airport zoning law which is cited as the Valencia County Airport Overlay Zone District. The ordinance is applicable to the Belen Airport and is intended to provide both airspace protection and land use compatibility with airport operations in the County. The regulations in this overlay district are in accordance with federal obstruction standards as contained in 14 CFR Part 77. This ordinance also references FAA Advisory Circular No. 70/7460-2K pertaining to height of structures near airports.

Torrance County

- 1. Zoning and Subdivision Regulations.** Torrance County is located east of Bernalillo County in the Estancia Basin. Torrance County is the location of a Secondary Tier Planning Area where the U.S. Air Force is proposing to conduct aircrew training for low-dust helicopter landings in a turf grass farm in an isolated area of central Valencia County. The County government administers zoning and subdivision regulations countywide including the area surrounding the proposed Helicopter Landing Zone. The Helicopter Landing Zone will be situated in farming and ranching lands and the area is zoned Agricultural Preservation District. There are scattered residential structures within a half mile of the Helicopter Landing Zone but most development in the area is along State Highway 41 three miles east of the site.
- 2. Potential Encroachments to Airspace.** The area within the Estancia Basin where the proposed Helicopter Landing Zone is located consists of open space grasslands and irrigated croplands. There are no tall structures, natural or man-made, in the Landing Zone area. However, wind farms with utility scale turbines (greater than 400 feet to the tip of the blade in its upright position) are coming on line in Torrance County; and there is one wind farm, the High Lonesome Wind Ranch which is currently in operation south of the Village of Willard and approximately 25 miles south of the Helicopter Landing Zone. Other existing and proposed wind farms are located in the eastern and southern portions of the County. There are no plans to date for large scale wind turbines between KAFB and the Helicopter Landing Zone.

5.3 Tribal Governments

Pueblo of Isleta

Development on the reservation lands of Isleta Pueblo generally involves the participation of the Tribal Governor with the support of two Lieutenant Governors and various administrative departments, and the Tribal Council which has the authority to enact and enforce various codes, ordinances and resolutions pertaining to land development. The Isleta Pueblo lands within the MIA include a two-mile wide buffer of undeveloped land; however, the Tribe reserves the right to develop any of this area for the benefit of the Pueblo people. A massive casino-resort complex is located in the far southeast corner of the MIA. There are also recreational facilities (i.e., fishing lakes and golf course) as well as various Tribal administrative buildings in this area. The Pueblo has an adopted Comprehensive Master Plan that recommends expansion of tourist and recreational facilities, along with new residential, commercial and light industrial development.

5.4 Cibola National Forest

Sandia Ranger District

The Sandia Ranger District of the Cibola National Forest administers over 100,000 acres of land in the Sandia-Manzano Mountains. This forest land is an active wildland-urban interface region serving the Albuquerque metropolitan area and accommodates more than 2 million visits per year. The Sandia Ranger District (refer to Figure 9, Part 3.3) maintains a variety of recreation sites and trails (motorized and non-motorized). Proximity to KAFB and the withdrawn areas present unique problems in forest management.

The *Cibola National Forest Land and Resource Management Plan* provides management policies and prescriptions for multiple-use and sustainable forest lands within the Sandia Ranger District. Within the Sandia Ranger District, management emphasis is on providing year round recreational opportunities while maintaining viable wildlife populations and ecosystem health. Management actions include prescribed fire, timber or fuel wood harvest, and limited structural improvements. Special use permits may be issued for a variety of commercial and special events activities. Although special use permits and leases can be requested for non-forest uses such as communications towers or wind turbines, there would be a problem with such facilities along the KAFB boundary.

Various MOUs have been executed over time between KAFB and Cibola National Forest. Two current examples are 1) an MOU pertaining to the management of cultural resources

on the withdrawn lands inside the KAFB boundary, and 2) an MOU to carry out an integrated prevention, detection and suppression of wildfires within the overlapping administrative boundaries of the Cibola National Forest and KAFB. Other issues of concern between the two parties, relating to the MIA, include forest ecosystem protection and restoration, trespassing and unauthorized use of trails or roads in KAFB, public safety of hikers and mountain bike riders, and the lack of boundary fencing along the KAFB boundary. There are special concerns expressed by KAFB and the DOE about public encroachment into areas where unexploded ordnance may exist, as well as areas where there are weapons firing ranges located within the withdrawn areas.

5.5 Kirtland Air Force Base

Department of Defense.

The DoD owns and operates KAFB as a military installation that is home to the Air Force Materiel Command's Nuclear Weapons Center. Under the command of the 377th Air Base Wing, and subordinate wings (the 377th Air Base Wing and the 498th Armament Systems Wing), there are more than 100 Air Force, DoD, and other federal organizations conducting missions at the Base. KAFB encompasses more than 51,000 acres of land, with intensive development located mostly in the northwest portion of the Base in proximity to the Albuquerque Sunport.

Development activities on the Base are subject to applicable laws, regulations, policies, and planning criteria that have been established for federal agencies in order to conduct their activities



Cibola National Forest, Credit: www.nationalforests.org

and carry out their missions in a legal and efficient manner. The NEPA and other environmental regulations as well as Executive Orders ensure adequate environmental considerations are part of the development process. Land use planning is guided by relevant documents published by various federal and state agencies as well as local guidance documents. The development review process is described in more detail in PART 4.1 of this report.

Of concern to KAFB as well as the surrounding communities is the impact of Base activities on natural resources and the interrelationship between mission operations, natural resources, and adjacent land uses. The U.S. Air Force requires KAFB to prepare and maintain an Integrated Natural Resources Management Plan for the lands within the Base, including the withdrawn areas from the Cibola National Forest. This Plan includes management strategies for fish and wildlife, threatened and endangered species, water and wetland resources, forest management, wildland fire management, pest management, Bird Aircraft Strike Hazard (BASH), outdoor recreation, cultural resources, and public outreach.

Department of Energy.

The DOE is a Base tenant that maintains an Albuquerque Operations Office at KAFB. The DOE has jurisdiction over 7,525 acres of lands within KAFB. The DOE's Albuquerque Office includes and is supported by the National Nuclear Security Administration (NNSA). A major role of the DOE/NNSA is to oversee programs of the Sandia National Laboratory (SNL). The SNL operates a large installation within KAFB comprising nearly 3,000 acres of land. The DOE has withdrawn portions of the Cibola

National Forest in the northeastern section of KAFB for research and development purposes. The withdrawn lands are restricted and public use is prohibited due to safety and security concerns.

SNL conducts research on the development and disposal of nuclear weapons, research and development of energy systems, advanced computer science research, development of arms control and nonproliferation technologies, computer technologies and a variety of other scientific research. A Long-Range Development Plan was approved in 2006 that provides guidelines for the development of facilities and infrastructure at the Albuquerque campus. In order to accommodate changing missions at SNL, the Long-Range Plan envisions the evolution of a low density, suburban campus to an urban campus achieved by redevelopment, infill and more compact development. The core campus is located in Technical Area 1, adjacent to and accessed by the Eubank gate into KAFB. There are four other Technical Areas grouped in two locations as well as other related areas holding land use permits from KAFB scattered throughout the Base.

Avigation and Noise Easements.

An easement is the right that a property owner grants to another for a specific use of their property. An avigation easement grants the right of unobstructed overflight in the airspace above a particular property. Such an agreement usually restricts the property owner from building or growing anything over a specified height. It also includes the right to create such noise or other effects that may result from the lawful operation of aircraft; the right to restrict or prohibit bright lights or electromagnetic



National Solar Thermal Test Facility (NSTTF) Credit: www.panoramio.com

signals; and the right of entry upon the land to exercise those rights. A noise easement would include non-aircraft noise exposure such as the explosives testing conducted at KAFB. Both aviation and noise easements would require some form of compensation provided to the Grantor by the Grantee (KAFB) as part of the agreement.

The Mesa del Sol developers have instituted noise easements on portions of Mesa del Sol referring to KAFB noise exposure zones extending into the planned community; however the use of aviation or noise easements is not common elsewhere around Albuquerque Sunport or KAFB. A draft template for combined aviation and noise easements has been prepared for purposes of the JLUS Implementation Project (see Appendix I) and may be applicable to certain areas adjacent to Albuquerque Sunport. This template is subject to review as to form and content, and identifies the KAFB as the Grantee with reference to military aircraft and non-aircraft noise emanating from KAFB or the Albuquerque Sunport. The template also includes an agreement for the Grantor not to sue the Grantee if noise impacts are caused by military operations in compliance with all applicable governmental laws and regulations.

Albuquerque Seismological Laboratory (USGS).

The Seismological Laboratory is actually located on leased land within the Isleta Indian Reservation adjacent to the southern boundary of KAFB; but is accessed only through KAFB. The seismological laboratory has been at this location since 1961 and is a permanent installation of the Global Seismographic Network, monitoring earthquakes and other seismic events. For obvious

reasons, the seismological laboratory requires a quiet zone and any new development in the vicinity that creates vibration is a major concern. Some examples of incompatible activities include: manned facilities within 2-3 miles of the lab, helicopter overflights, mining activities near the lab, and wind turbines in the vicinity.



Albuquerque Seismological Laboratory, Credit: www.iris.edu

6.0 Implementation Action Strategies

A significant challenge for implementing the JLUS is to convey a sense of necessity among the affected jurisdictions to avoid or prevent incompatible land use and development in the civilian communities near KAFB and the Albuquerque Sunport. As selected recommendations from the JLUS are carried forward, specific actions have been prepared for key players in the implementation process. In some cases, the action strategies presented in this report have already been implemented; while other actions are subject to further review and consideration for adoption either as recommended herein or as revised by the responsible agency.

Action strategies are presented below for the JLUS Implementation Project. These action strategies are composed of specific statements for the appropriate jurisdictions to pursue in achieving the objectives of the JLUS. Although the timing of these action strategies is not specified, there is some urgency in initiating the strategies in the near future to ensure long-term compatibility of land use and development around KAFB.

6.1 Mid-Region Council of Governments Implementation Support.

The MRCOG staff will maintain an ongoing role in carrying out the JLUS Implementation Project.

- A. Maintain and Facilitate The JLUS Implementation Team. The Team established at the beginning of the Implementation Project will be convened on a quarterly schedule to review the progress of the JLUS Action Strategies recommended for the Implementation Project.
- B. Annual Evaluation. The Team will conduct an annual review of the progress and accomplishments of the JLUS Implementation Project. Modifications to the Action Strategies presented in this report may be proposed following an evaluation session and approved agreement of the affected party or parties with the unanimous consent of the Team.

Monitoring Action Strategies.

The MRCOG staff will collaborate with the governmental jurisdictions involved in the Implementation Project to monitor the progress of the JLUS Action Strategies.

- A. Review Status of MOUs. The MOUs presented in this report, adopted or proposed, will be reviewed as necessary to determine effectiveness and utility of the commitments identified in the MOU. Efforts will be made to encourage the adoption of any proposed MOUs not adopted at the time of publication of this report.
- B. Review Status of Proposed Regulations. The MRCOG staff will meet as necessary with appropriate staff of governmental jurisdictions regarding proposed regulatory changes discussed in this report.
- C. Participation in Development Review Processes. The

MRCOG staff will continue to participate in the multi-agency development review processes conducted by the City of Albuquerque and Bernalillo County. MRCOG staff comments will focus on the potential for incompatible development that may be proposed within the MIA. Criteria for reviewing applications for development in the MIA are provided in Appendix J of this report.

D. GIS Mapping Assistance. The MRCOG staff will provide relevant GIS mapping services pertaining to the JLUS planning areas discussed in this report.

E. Monitor Secondary Tier Planning Areas. The MRCOG staff will monitor the proposed KAFB activities at the Torrance County Helicopter Landing Zone and the Belen Municipal Airport. City of Belen and Valencia County land use planning activities around the Belen Airport will be promoted and assisted by MRCOG staff.

6.2 City of Albuquerque Policies and Procedures.

The City of Albuquerque, through its Planning Department, will initiate modified procedures for reviewing and commenting on proposed planning and development within the MIA, and occurring within the City's planning jurisdiction.

- A. Development Review Process. The Planning Department will review applications for major development proposals within the MIA with the added objective of identifying potential new development and land uses that may be or become incompatible to the operations of KAFB.
- B. Military Influence Area Mapping. The City will acknowledge and identify the boundary of the MIA within its planning jurisdiction in a mapping format. Mapping data will be provided by the MRCOG.
- C. MIA Fact Sheet. The City Planning Department may distribute a Fact Sheet to applicants for proposed development within the MIA. The Fact Sheet (see Appendix K) will be provided by the MRCOG and serves as a KAFB disclosure statement for properties located within the MIA.
- D. Comprehensive Plan Review. A Comprehensive Plan establishes and drives local land-use policy and can be used to address matters related to land use compatibility around KAFB. In the event that the City updates the Comprehensive Plan for Albuquerque and Bernalillo County, elements can be included to reference the JLUS and the Kirtland MIA.

Codes and Ordinances.

As a local government in New Mexico, the City of Albuquerque has the power to regulate land use and manage the development process within its jurisdiction. Ongoing review of codes and ordinances can provide opportunities for adapting or modifying

regulations and development standards to promote compatibility of land uses near KAFB.

- A. Written Criteria for Development in the MIA. If deemed appropriate, the City Planning Department should develop written criteria for reviewing applications for development within the MIA concerning the potential for incompatible land use in relation to KAFB.
- B. Review Airport Zoning Ordinance. The City needs to review the Airport Zoning Ordinance [Sec. 14-15-1 et seq.], which is not being administered or enforced as written. This ordinance should be repealed or revised to establish airspace protection zones around Albuquerque Sunport.
- C. Review Airport Protection Overlay Zones. The Albuquerque Zoning Code includes special overlay zones delineating noise contours around Albuquerque Sunport [Sec. 14-16-2-28]. A proposed update for the overlay zones (i.e., AP-1 and AP-2) is provided in Appendix L of this Report for consideration and adoption. These proposed revisions add details to the Permissive Uses and include a new section on Prohibited Uses within the AP-1 Overlay Zone.
- D. Review of Regulations for MIA Dark Sky Ordinance. This Report includes proposed dark sky regulations (see Appendix E) for consideration and adoption by the City. Dark sky regulations should be applicable, as a minimum, to the lands within the MIA.

Cooperative Agreements.

The JLUS emphasizes coordinated and collaborative land use planning and development review to avoid incompatible development adjacent to KAFB. Multi-jurisdictional agreements provide a basis for clarifying roles and responsibilities for actions regarding the compatibility and encroachment issues of civilian land uses near KAFB.

- A. Memorandum of Understanding. An MOU between KAFB and the City of Albuquerque has been prepared (see Appendix M) to establish a notification and review process between the parties to ensure compatible development. The MOU provides notification and communication protocols concerning land development activities in the MIA. Also, collaboration in the development review process affecting the lands within the MIA is ensured.

6.3 Bernalillo County Policies and Procedures.

Bernalillo County, through its Zoning, Building, and Planning Department, will initiate modified procedures for reviewing and commenting on proposed planning and development in the MIA occurring within the County's planning jurisdiction.

- A. Development Review Process. The Planning Section will coordinate the review of applications for major development proposals within the MIA with the added objective of identifying potential new development and land uses that may be or become incompatible to the operations of KAFB.

B. Military Influence Area Mapping. The City will acknowledge and identify the boundary of the MIA within its planning jurisdiction in a mapping format. Mapping data will be provided by the MRCOG.

C. MIA Fact Sheet. The County Zoning, Building, and Planning Department may distribute a Fact Sheet to applicants for proposed development within the MIA. The FactSheet (see Appendix K) will be provided by the MRCOG and serves as a KAFB disclosure statement for properties located within the MIA.

D. Comprehensive Plan Review. A Comprehensive Plan establishes and drives local land-use policy and can be used to address matters related to land use compatibility around KAFB. In the event that the County updates the Comprehensive Plan for Albuquerque and Bernalillo County, elements can be included to reference the JLUS and the MIA.

Codes and Ordinances.

As a local government in New Mexico, Bernalillo County has the power to regulate land use and manage the development process within its jurisdiction. Ongoing review of codes and ordinances can provide opportunities for adapting or modifying regulations and development standards to promote compatibility of land uses near KAFB.

- A. Written Criteria for Development in the MIA. If deemed appropriate, the County Zoning, Building, and Planning Department should develop written criteria for reviewing applications for development within the MIA concerning the potential for incompatible land use in relation to KAFB.
- B. Regulations for MIA Dark Sky Ordinance. Although Bernalillo County has adopted two area-wide Light Pollution Ordinances, only one of them pertains to lands within the MIA. Appendix E of this Report contains proposed regulations for Dark Sky Ordinances that may be considered by the County in addition to the elements of the Light Pollution Ordinances already in place for the East Mountain and Sandia Heights Areas.
- C. Review Airport Protection Overlay Zones. The Bernalillo County Zoning Ordinance includes special overlay zones delineating noise contours around Albuquerque Sunport [Section 20]. These zoning regulations are basically identical to the City of Albuquerque Airport Protection Overlay Zones. A proposed update for the overlay zones (i.e., AP-1 and AP-2) is provided in Appendix L of this Report for consideration and adoption. These proposed revisions add details to the Permissive Uses and include a new section on Prohibited Uses within the AP-1 Overlay Zone.

Cooperative Agreements.

The JLUS emphasizes coordinated and collaborative land use planning and development review to avoid incompatible development adjacent to KAFB. Multi-jurisdictional agreements provide a basis for clarifying roles and responsibilities for actions regarding the compatibility and encroachment issues of civilian

lands near KAFB.

A. Memorandum of Understanding. An MOU between KAFB and Bernalillo County has been prepared (see Appendix N) to establish a notification and review process between the parties to ensure compatible development. The MOU provides notification and communication protocols concerning land development activities in the MIA. Also, collaboration in the development review process affecting the lands within the MIA is ensured.

6.4 Other Action Strategies

MOU between KAFB and Isleta Pueblo

A significant portion of the southern boundary of KAFB is shared with the Pueblo of Isleta. A lengthy but purposeful effort has been underway to prepare an MOU to establish formal notification and information exchange procedures between KAFB and Isleta Pueblo to ensure compatible activities and development on both sides of their common border. To date, an initial draft MOU has not been completed. For reference, the initially proposed MOU is located in Appendix N.

MOU between KAFB and NM State Land Office

The presence and availability of New Mexico State Trust Lands is the principal focus of the MOU between KAFB and the SLO (see Appendix O). The SLO owns and controls various lands within a five-mile buffer area surrounding KAFB, referenced in the MOU as the JLUS Study Area. The purpose of this MOU is to promote collaboration between military commanders and the SLO in order to ensure compatible development near military installations. Communication and collaboration is essential for implementing the JLUS with respect to the Trust Lands and for use of Trust Lands to benefit KAFB, the SLO, and the State of New Mexico. Some of the key understandings in this MOU include:

A. Consultation Protocols. In order to enable efficient and effective coordination between the KAFB and SLO, primary points of contact will be identified for periodic consultation with respect to the use of Trust Lands.

B. Honoring Existing Plans. KAFB and the SLO agree to honor the implementation of existing land use plans for State Trust Lands within the JLUS Study Area. Implementation of the Mesa del Sol, La Semilla, and Sandia Science and Technology Park Master Plans in particular will be subject to an appropriate collaborative review prior to any new development and redevelopment activities.

C. Continued Use of Trust Lands to Support DoD Missions. Any Trust Lands within New Mexico may be identified and considered for use by the DoD for the mutual benefit of KAFB, SLO, and the State of New Mexico.

Cibola National Forest/Sandia Ranger District.

The Sandia Ranger District is an administrative unit of the Cibola National Forest, under the jurisdiction of the U.S. Forest Service. The eastern portion of KAFB lies within the Cibola National Forest, and there are various restrictions imposed by the overlapping jurisdictions. Current land use and management within these

overlapping areas is subject to review and acceptance of formal agreements between the U.S. Forest Service and KAFB:

A. Withdrawn Areas. The purpose and functions of areas within KAFB that are withdrawn from the U.S. Forest Service should be periodically evaluated and reaffirmed, or revised if necessary, in terms of land use and level of responsibility between the DoD, DOE, and the U.S. Forest Service.

B. Cooperative Agreements. Ongoing review and evaluation of Memoranda of Understanding between KAFB and the U.S. Forest Service is essential to protect the historic and ecological integrity of the National Forest lands within KAFB and the MIA.

MOU between City of Belen and Valencia County.

The U.S. Air Force is proposing to use the Belen Municipal Airport for pilot training exercises. The authority to control land use and development around the Belen Airport is under the jurisdiction of both the City of Belen and Valencia County. A draft MOU has been prepared for the City of Belen and Valencia County (see Appendix H) to evaluate and resolve the issues of encroachment and compatibility at the Belen Airport. The MOU is intended to ensure City/County collaboration in developing a Belen Airport Master Plan and adopting a common set of regulations for land use near the airport.

Template for Avigation and Noise Easement.

A template for combined avigation and noise easements relative to activities on KAFB or the Albuquerque Sunport is provided in the form of a draft agreement in Appendix I. This form of agreement is a recommendation from the JLUS and is available for consideration and application if needed.

Disclosure of KAFB Impacts.

The owners of property located in the MIA should understand the implications of living and working near KAFB and the Albuquerque Sunport. Disclosure statements are a practical means for ensuring common knowledge about the proximity impacts of airport and military installations.

A. Kirtland MIA Fact Sheet. The MRCOG staff has prepared a Fact Sheet (see Appendix K) that serves as a disclosure statement for developers or zoning applicants proposing new development or redevelopment on lands within the MIA. This Fact Sheet is an informational handout to be included as part of the multi-agency review process undertaken by the City of Albuquerque or Bernalillo County.

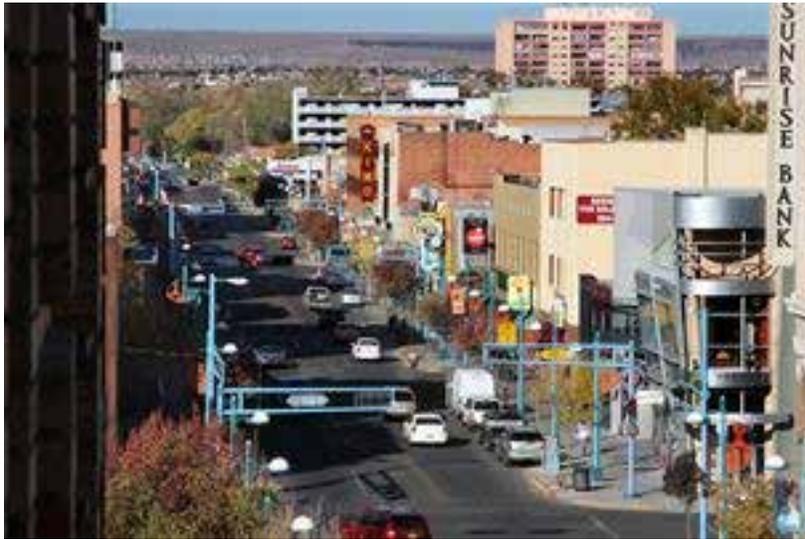
B. Real Estate Disclosure Template. Prior to the transfer of real property located within the MIA, buyers should be informed of the potential for off-site impacts such as sound and vibrations generated by KAFB or the Albuquerque Sunport. A real estate disclosure template is provided in Appendix Q for property transactions occurring within the MIA. This template has been prepared as a recommendation for consideration by the local real estate/development communities.

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Appendices



Central Ave., Albuquerque, Credit: www.bizjournals.com

Appendix A

Kirtland AFB JLUS Implementation Team Roster

Agency	Name	Phone	E-mail
City of Albuquerque Planning Department	Russel Brito, Manager, Current Planning Division	505.924.3337	rbrito@cabq.gov
	Juanita Garcia, Acting Code Compliance Official	505.924.3823	juanitagarcia@cabq.gov
	Maggie Gould, Planner, Long Range Division	505.924.3910	mgould@cabq.gov
	Petra Morris, Planner	505.924.3897	pmorris@cabq.gov
City of Albuquerque Aviation Department	Jack Scherer, Associate Director of Planning and Development	505.244.7712	jscherer@cabq.gov
	Jim Hinde, Director	505.244.7700	jhinde@cabq.gov
Bernalillo County	Nano Chavez, Planning & Land Use Manager	505.314.0384	nchavez@bernco.gov
	Enrico Gradi, Program Planner	505.314.0385	egradi@bernco.gov
	Mari Simbaña	505.314.0386	mbsimbana@bernco.gov
Isleta Pueblo	Pablo Padilla, Tribal Attorney	505.869.9716	tribal.attorney@isletapueblo.com
Cibola National Forest, Sandia Ranger District	Cid, Morgan, Director	505.281.3304 ext. 117	chmorgan@fs.fed.us
New Mexico State Land Office	Ray Powell, Land Commissioner	505.507.0697	rpowell@slo.state.nm.us
	Harry Relkin, General Council	505.827.5715	hrelkin@slo.state.nm.us
Mesa del Sol, ForestCity	Manny Barrera, PE. Director of Engineering	505.452.2600	mbarrera@fcmds.com
New Mexico Office of Military Base Planning and Support	Brigadier General, USAF (Ret) Hanson Scott, Director	505.980.5088	hanson.scott@state.nm.us
Kirtland Air Force Base	Ed Sullivan, Deputy Director, 377th MSG/CD	505.846.7712	ed.sullivan@kirtland.af.mil
	Brent Wilson, Base Civil Engineer, 377th MSG/CE		brent.wilson@kirtland.af.mil
	Donna Dunn, Base Community Planner		donna.dunn@kirtland.af.mil
United States Air Force	Priscilla Ohta, Portfolio Optimization	505.853.0579	priscilla.ohta@us.af.mil
U.S. Department of Energy, National Nuclear Security Administration	Susan Lacy	505.845.5542	susan.lacy@nnsa.doe.gov
Kirtland Partnership Committee	Stuart Purviance, Executive Director	505.241.4810	kpcabq@aol.com
Mid-Region Council of Governments	Dewey Cave, Executive Director	505.724.3624	dcave@mrcog-nm.gov
	Thaddeus Lucero, Director of Planning	505.724.3647	tlucero@mrcog-nm.gov
	Joseph Quintana, Regional Planning Manager (former)	505.724.3622	jlquintana@mrcog-nm.gov
	Sandra Gaiser, Regional Planning Manager	505.724.3645	sgaiser@mrcog-nm.gov
	Derrick Webb, Regional Planner	505.843.1704	dwebb@mrcog-nm.gov
	Julie Heinrich, Special Projects Manager	505.724.3642	jheinrich@mrcog-nm.gov

NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

§ 77.7 Form and time of notice.

- (a) If you are required to file notice under §77.9, you must submit to the FAA a completed FAA Form 7460–1, Notice of Proposed Construction or Alteration. FAA Form 7460–1 is available at FAA regional offices and on the Internet.
- (b) You must submit this form at least 45 days before the start date of the proposed construction or alteration or the date an application for a construction permit is filed, whichever is earliest.
- (c) If you propose construction or alteration that is also subject to the licensing requirements of the Federal Communications Commission (FCC), you must submit notice to the FAA on or before the date that the application is filed with the FCC.
- (d) If you propose construction or alteration to an existing structure that exceeds 2,000 ft. in height above ground level (AGL), the FAA presumes it to be a hazard to air navigation that results in an inefficient use of airspace. You must include details explaining both why the proposal would not constitute a hazard to air navigation and why it would not cause an inefficient use of airspace.
- (e) The 45-day advance notice requirement is waived if immediate construction or alteration is required because of an emergency involving essential public services, public health, or public safety. You may provide notice to the FAA by any available, expeditious means. You must file a completed FAA Form 7460–1 within 5 days of the initial notice to the FAA. Outside normal business hours, the nearest flight service station will accept emergency notices.

§ 77.9 Construction or alteration requiring notice.

If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA of:

- (a) Any construction or alteration that is more than 200 ft. AGL at its site.
- (b) Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:
- (1) 100 to 1 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 ft. in actual length, excluding heliports.
 - (2) 50 to 1 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 ft. in actual length, excluding heliports.

(3) 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section.

(c) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it, would exceed a standard of paragraph (a) or (b) of this section.

(d) Any construction or alteration on any of the following airports and heliports:

- (1) A public use airport listed in the Airport/Facility Directory, Alaska Supplement, or Pacific Chart Supplement of the U.S. Government Flight Information Publications;
- (2) A military airport under construction, or an airport under construction that will be available for public use;
- (3) An airport operated by a Federal agency or the DOD.
- (4) An airport or heliport with at least one FAA-approved instrument approach procedure.

(e) You do not need to file notice for construction or alteration of:

(1) Any object that will be shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic features of equal or greater height, and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation;

(2) Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device meeting FAA-approved siting criteria or an appropriate military service siting criteria on military airports, the location and height of which are fixed by its functional purpose;

(3) Any construction or alteration for which notice is required by any other FAA regulation.

(4) Any antenna structure of 20 feet or less in height, except one that would increase the height of another antenna structure.

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76193
Fax: (817) 321-7765
Phone: (817) 321-7750

Website: <https://oeaaa.faa.gov>

INSTRUCTIONS FOR COMPLETING FAA FORM 7460-1

PLEASE TYPE or PRINT

ITEM #1. Please include the name, address and phone number of a personal contact point as well as the company name.

ITEM #2. Please include the name, address and phone number of a personal contact point as well as the company name.

ITEM #3. New Construction would be a structure that has not yet been built.

Alteration is a change to an existing structure such as the addition of a side mounted antenna, a change to the marking and lighting, a change to power and/or frequency, or a change to the height. The nature of the alteration shall be included in ITEM #21 "Complete Description of Proposal".

Existing would be a correction to the latitude and/or longitude, a correction to the height, or if filing on an existing structure which has never been studied by the FAA. The reason for the notice shall be included in ITEM #21 "Complete Description of Proposal".

ITEM #4. If Permanent, so indicate. If Temporary, such as a crane or drilling derrick, enter the estimated length of time the temporary structure will be up.

ITEM #5. Enter the date that construction is expected to start and the date that construction should be completed.

ITEM #6. Please indicate the type of structure. DO NOT LEAVE BLANK.

ITEM #7. In the event that obstruction marking and lighting is required, please indicate type desired. If no preference, check "other" and indicate "no preference" DO NOT LEAVE BLANK. NOTE: High Intensity lighting shall be used only for structures over 500' AGL. In the absence of high intensity lighting for structures over 500' AGL, marking is also required.

ITEM #8. If this is an existing tower that has been registered with the FCC, enter the FCC Antenna Structure Registration number here.

ITEM #9 and #10. Latitude and longitude must be geographic coordinates, accurate to within the nearest second or to the nearest hundredth of a second if known. Latitude and longitude derived solely from a hand-held G P S instrument is NOT acceptable. A hand-held GPS is only accurate to within 100 meters (328 feet) 95 percent of the time. This data, when plotted, should match the site depiction submitted under ITEM #20.

ITEM #11. NAD 83 is preferred; however, latitude and longitude may be submitted in NAD 27. Also, in some geographic areas where NAD 27 and NAD 83 are not available other datum may be used. It is important to know which datum is used. DO NOT LEAVE BLANK.

ITEM #12. Enter the name of the nearest city and state to the site. If the structure is or will be in a city, enter the name of that city and state.

ITEM #13. Enter the full name of the nearest public-use (not private-use) airport or heliport or military airport or heliport to the site.

ITEM #14. Enter the distance from the airport or heliport listed in #13 to the structure.

ITEM #15. Enter the direction from the airport or heliport listed in #13 to the structure.

ITEM #16. Enter the site elevation above mean sea level and expressed in whole feet rounded to the nearest foot (e.g. 17'3" rounds to 17', 17'6" rounds to 18'). This data should match the ground contour elevations for site depiction submitted under ITEM #20.

ITEM #17. Enter the total structure height above ground level in whole feet rounded to the next highest foot (e.g. 17'3" rounds to 18'). The total structure height shall include anything mounted on top of the structure, such as antennas, obstruction lights, lightning rods, etc.

ITEM #18. Enter the overall height above mean sea level and expressed in whole feet. This will be the total of ITEM #16 + ITEM #17.

ITEM #19. If an FAA aeronautical study was previously conducted, enter the previous study number.

ITEM #20. Enter the relationship of the structure to roads, airports, prominent terrain, existing structures, etc. Attach an 8-1/2" x 11" non-reduced copy of the appropriate 7.5 minute U.S. Geological Survey (USGS) Quadrangle Map MARKED WITH A PRECISE INDICATION OF THE SITE LOCATION. To obtain maps, contact USGS at 1-888-275-8747 or via internet at "<http://store.usgs.gov>". If available, attach a copy of a documented site survey with the surveyor's certification stating the amount of vertical and horizontal accuracy in feet.

ITEM #21.

- For transmitting stations, include maximum effective radiated power (ERP) and all frequencies.
- For antennas, include the type of antenna and center of radiation (Attach the antenna pattern, if available).
- For microwave, include azimuth relative to true north.
- For overhead wires or transmission lines, include size and configuration of wires and their supporting structures (Attach depiction).
- For each pole/support, include coordinates, site elevation, and structure height above ground level or water.
- For buildings, include site orientation, coordinates of each corner, dimensions, and construction materials.
- For alterations, explain the alteration thoroughly.
- For existing structures, thoroughly explain the reason for notifying the FAA (e.g. corrections, no record or previous study, etc.).

Filing this information with the FAA does not relieve the sponsor of this construction or alteration from complying with any other federal, state or local rules or regulations. If you are not sure what other rules or regulations apply to your proposal, contact local/state aviation's and zoning authorities.

Paperwork Reduction Work Act Statement: This information is collected to evaluate the effect of proposed construction or alteration on air navigation and is not confidential. Providing this information is mandatory or anyone proposing construction or alteration that meets or exceeds the criteria contained in 14 CFR, part 77. We estimate that the burden of this collection is an average 19 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information. A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB control number associated with this collection is 2120-0001. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.



State of New Mexico *Office of the Governor*

Bill Richardson
Governor

EXECUTIVE ORDER NO. 2004-046

LAND-USE PLANNING AND MILITARY INSTALLATION COMPATIBILITY

WHEREAS, New Mexico is proud to be the host of four outstanding military installations: Cannon AFB, Holloman AFB, Kirtland AFB, and White Sands Missile Range; and

WHEREAS, New Mexico's military installations have long played a significant role in the national security posture of our country; and

WHEREAS, New Mexico's military installations contribute significantly to the economic well-being of our State and our counties; and

WHEREAS, New Mexico's military installations have also made a significant contribution to the scientific and technical resources of our State; and

WHEREAS, New Mexico's military installations have a regional impact within the State of New Mexico; and

WHEREAS, the Department of Defense has announced a Base Realignment and Closure round in 2005; and

WHEREAS, "Military Value" will be the main criteria against which our military installations are evaluated, and

WHEREAS, "Military Value" includes "the availability and condition of land, facilities and associated airspace (including training areas suitable for maneuver by ground, naval, or air forces throughout a diversity of climate and terrain areas);" and

WHEREAS, land-use planning by State agencies and other political subdivisions and municipalities in coordination with our military installations can assist in preserving available land for military readiness;

NOW THEREFORE, I Bill Richardson, Governor of the State of New Mexico, by virtue of the authority vested in me by the Constitution and the laws of the State of New Mexico do hereby direct all appropriate and relevant State agencies, which are involved with land-use planning to ensure compatible development with New Mexico's military installations. Further, I recommend that all political subdivisions and municipalities that adopt land-use plans and

enforce zoning regulations ensure that planned development is compatible with military installations, and that they consider the impact of new growth on "Military Value" when preparing zoning ordinances or designating land uses for land adjacent to military facilities or other parcels of land which are in proximity to military installations.

THIS ORDER supersedes any other previous orders, proclamations, or directives in conflict. This Executive Order shall take effect immediately and shall remain in effect until such time as the Governor rescinds it.

ATTEST:

REBECCA VIGIL-GIRON
SECRETARY OF STATE

DONE AT THE EXECUTIVE OFFICE
THIS 26th DAY OF AUGUST, 2004

WITNESS MY HAND AND THE GREAT
SEAL OF THE STATE OF NEW MEXICO


BILL RICHARDSON
GOVERNOR



Appendix D

KAFB Military Influence Area Proposed Dark Sky Regulations

Purpose

The purpose of these dark sky regulations is to regulate outdoor lighting fixtures around Kirtland Air Force Base (KAFB) to preserve and enhance a dark sky ambience beneficial to nighttime military operations conducted at the Base and aircraft activities at Albuquerque International Sunport. Additionally, these dark sky regulations are intended to improve nighttime public safety and security of persons and property, curtail light trespass in residential neighborhoods, and reduce energy costs.

Applicability

- 1) These dark sky regulations are applicable to the KAFB Military Influence Area (MIA). The MIA was created and mapped pursuant to recommendations proposed by the KAFB Joint Land Use Study describing a special planning area for promoting development that is compatible with KAFB military operations.
- 2) These dark sky regulations do not apply in areas within the MIA where existing dark sky regulations are being administered or new, more stringent, dark sky regulations may be imposed after the effective date of these regulations.
- 3) These dark sky regulations comply with New Mexico Statutes as provided by the Night Sky Protection Act [74-12-1 to 74-12-10 NMSA 1978].

Definitions

- 1) "Floodlight" means a luminaire designed to project or flood its light into a defined area. Floodlights are directional in character.
- 2) "Light trespass" means light falling where it is not wanted or needed, generally light from one property that shines onto another property or onto the public right-of-way.
- 3) "Luminaire" means a complete lighting assembly, consisting of a lamp, housing, reflectors, lenses, and shields. Luminaire is often referred to as a lighting fixture.
- 4) "Outdoor lighting fixture" means an outdoor artificial illuminating device, whether permanent or portable, used for illumination or advertisement. Such devices shall include, but are not limited to lights used for:
 - a) Parking lot lighting,
 - b) Roadway lighting,
 - c) Buildings and structures,
 - d) Recreational areas,
 - e) Landscape lighting,
 - f) Billboards and other signs,
 - g) Product display area lighting,
 - h) Building or structure decoration,
 - i) Building overhangs and open canopies.
- 5) "Searchlight" means a luminaire designed to generate a tightly focused beam of light skyward, and with a swiveled or gimbaled mount to allow the assembly to be easily redirected.
- 6) "Security lighting" means lighting intended to discourage intruders, vandals, or burglars; to protect property; and to reduce risk (real or perceived) of personal attack.
- 7) "Shielded luminaire" means a light fixture that is shielded in such a manner that light rays emitted by the fixture, either directly from the lamp or indirectly from the fixture, are projected below a horizontal plane running through the lowest point on the fixture where light is emitted.
- 8) "Sign, externally illuminated" means a sign illuminated by light sources from the outside.
- 9) "Sign, internally illuminated" means a sign illuminated by light sources enclosed entirely within the sign cabinet and not directly visible from outside the sign.

Nonconforming Light Fixtures

- 1) Existing outdoor lighting fixtures that are nonconforming but were legally installed prior to the effective date of these regulations are excluded for the duration of their useful lives.
- 2) Replacement of any nonconforming or unrepairable lighting fixture or luminaire shall be subject to the provisions herein.

Prohibited Light Fixtures

- 1) All mercury vapor lighting fixtures are prohibited in accordance with state statutes [74-12-6 NMSA 1978].
- 2) Buildings and structures that incorporate 'uplighting' or 'side lighting' are prohibited.
- 3) Signs that incorporate 'uplighting' or 'side lighting' are prohibited; only top-mounted and fully shielded luminaires are allowed for externally illuminated signs.
- 4) Blinking, flashing, or changing intensity lights including those used for signage are prohibited.
- 5) Searchlights used to sweep the sky for advertising purposes are prohibited.

- 6) The use of a laser source light or any similar high-intensity light (such as a strobe light) is prohibited.

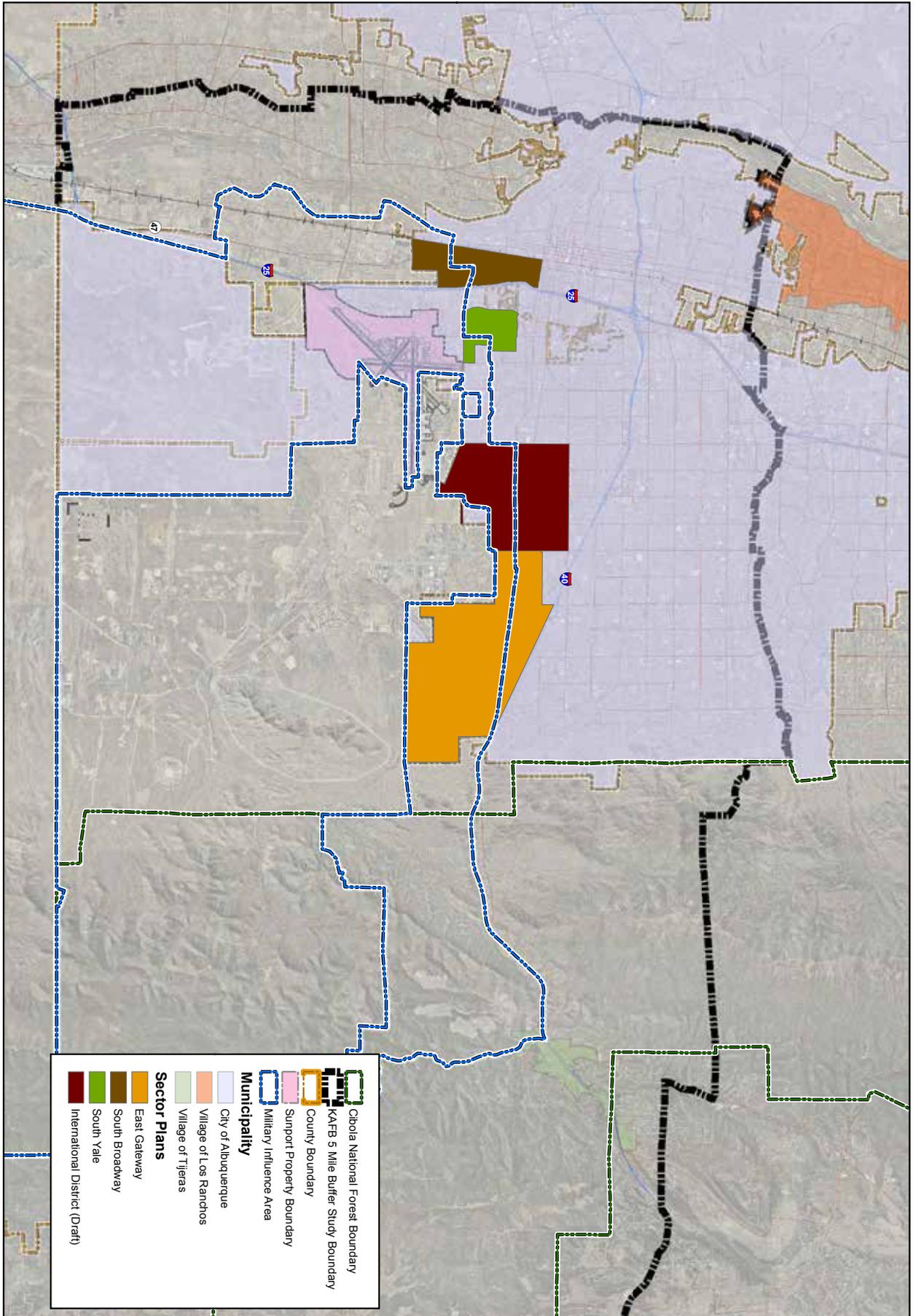
Outdoor Lighting Regulations

- 1) Outdoor area lighting, including parking area lighting, street lighting, non-residential property lighting, recreational property lighting, and residential property lighting shall be arranged and installed to conform with these dark sky regulations.
- 2) Plans for proposed development shall include exterior lighting locations and descriptions of proposed luminaires on the premises of the proposed development site.
- 3) All outdoor area luminaires shall be fully shielded and aimed to avoid light trespass into areas not intended to be lighted, such as public right-of-way or any residential premises.
- 4) Commercial and business lighting, including on-premise externally or internally illuminated signs, shall be turned off during non-business hours with the exception of lighting used for security purposes.
- 5) Outdoor recreational lighting shall be turned off after 11:00 p.m., except to conclude a specific recreational or sporting event in progress prior to 9:00 p.m.

Exemptions to Outdoor Lighting Regulations

- 1) Low wattage seasonal (holidays, events, etc.) or decorative lighting.
- 2) Emergency lighting used by police, firefighting, or medical personnel.
- 3) Hospitals, police stations, and fire stations are exempt from the building and structure lighting curfew.
- 4) Navigational lighting systems at airports and other lighting necessary for aircraft safety.
- 5) Street signs and traffic signals are exempt from the sign illumination curfew.
- 6) Outdoor lighting fixtures on advertisement signs on interstates and federal primary highways.
- 7) All temporary lighting used for the construction of buildings, roadways, utilities or other infrastructure is allowed until the completion of construction, provided such lighting is in compliance with OSHA standards.
- 8) Underwater lighting used for the illumination of swimming pools and fountains is exempt from the lamp type and shielding standards listed in these dark sky regulations.

Appendix E



	Cibola National Forest Boundary
	KAFB 5 Mile Buffer Study Boundary
	County Boundary
	Sunport Property Boundary
	Military Influence Area
Municipality	
	City of Albuquerque
	Village of Los Ranchos
	Village of Tijeras
Sector Plans	
	International District (Draft)
	South Yale
	South Broadway
	East Gateway
	South Broadway

Sector Plan Areas within the MIA

KAFB JLUIS Implementation Project
August 2013

Appendix F

USAF Recommended Land Use Compability Guidelines in Relation to APZs and Noise Zones

Land Use		APZs			Noise Zones			
SLUCM No.	Name	CZ	APZ I	APZ II	65-69 dBA	70-74 dBA	75-79 dBA	80+ dBA
10	Residential							
11	Household units							
11.11	Single units: detached	N	N	Y ¹	A ¹¹	B ¹¹	N	N
11.12	Single units: semi-detached	N	N	N	A ¹¹	B ¹¹	N	N
11.13	Single units: attached row	N	N	N	A ¹¹	B ¹¹	N	N
11.21	Two units: side-by-side	N	N	N	A ¹¹	B ¹¹	N	N
11.22	Two units: one above the other	N	N	N	A ¹¹	B ¹¹	N	N
11.31	Apartments: walk up	N	N	N	A ¹¹	B ¹¹	N	N
11.32	Apartments: elevator	N	N	N	A ¹¹	B ¹¹	N	N
12	Group quarters	N	N	N	A ¹¹	B ¹¹	N	N
13	Residential hotels	N	N	N	A ¹¹	B ¹¹	N	N
14	Mobile home parks or courts	N	N	N	N	N	N	N
15	Transient lodgings	N	N	N	A ¹¹	B ¹¹	C ¹¹	N
16	Other residential	N	N	N ¹	A ¹¹	B ¹¹	N	N
20-30	Manufacturing							
21	Food and kindred products: manufacturing	N	N ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
22	Textile mill products: manufacturing	N	N ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
23	Apparel and other finished products made from fabrics, leather, and similar materials: manufacturing	N	N	N ²	Y	Y ¹²	Y ¹³	Y ¹⁴
24	Lumber and wood products (except furniture): manufacturing	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
25	Furniture and fixtures: manufacturing	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
26	Paper and allied products: manufacturing	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
27	Printing, publishing, and allied industries	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
28	Chemicals and allied products: manufacturing	N	N	N ²	Y	Y ¹²	Y ¹³	Y ¹⁴
29	Petroleum refining and related industries	N	N	N	Y	Y ¹²	Y ¹³	Y ¹⁴
31	Rubber and misc. plastic products: manufacturing	N	N ²	N ²	Y	Y ¹²	Y ¹³	Y ¹⁴
32	Stone, clay, and glass products manufacturing	N	N ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
33	Primary metal industries	N	N ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
34	Fabricated metal products: manufacturing	N	N ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴

Land Use		APZs			Noise Zones			
SLUCM No.	Name	CZ	APZ I	APZ II	65-69 dBA	70-74 dBA	75-79 dBA	80+ dBA
20-30	Manufacturing (continued)							
35	Professional, scientific, and controlling instruments; photographic and optical goods; watches and clocks: manufacturing	N	N	N ²	Y	A	B	N
39	Miscellaneous manufacturing	N	Y ²	Y ²	Y	Y ¹²	Y ¹³	Y ¹⁴
40	Transportation, communications, and utilities							
41	Railroad, rapid rail transit, and street railroad transportation	N ³	Y ⁴	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
42	Motor vehicle transportation	N ³	Y	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
43	Aircraft transportation	N ³	Y ⁴	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
44	Marine craft transportation	N ³	Y ⁴	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
45	Highway and street right-of-way	N ³	Y	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
46	Automobile parking	N ³	Y ⁴	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
47	Communications	N ³	Y ⁴	Y	Y	A ¹⁵	B ¹⁵	N
48	Utilities	N ³	Y ⁴	Y	Y	Y	Y ¹²	Y ¹³
49	Other transportation communications and utilities	N ³	Y ⁴	Y	Y	A ¹⁵	B ¹⁵	N
50	Trade							
51	Wholesale trade	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
52	Retail trade: building materials, hardware, and farm equipment	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
53	Retail trade: general merchandise	N	N ²	Y ²	Y	A	B	N
54	Retail trade: food	N	N ²	Y ²	Y	A	B	N
55	Retail trade: automotive, marine craft, aircraft, and accessories	N	Y ²	Y ²	Y	A	B	N
56	Retail trade: apparel and accessories	N	N ²	Y ²	Y	A	B	N
57	Retail trade: furniture, home furnishings, and equipment	N	N ²	Y ²	Y	A	B	N
58	Retail trade: eating and drinking establishments	N	N	N ²	Y	A	B	N
59	Other retail trade	N	N ²	Y ²	Y	A	B	N
60	Services							
61	Finance, insurance, and real estate services	N	N	Y ⁶	Y	A	B	N
62	Personal services	N	N	Y ⁶	Y	A	B	N
62.4	Cemeteries	N	Y ⁷	Y ⁷	Y	Y ¹²	Y ¹³	Y ^{14,21}
63	Business services	N	Y ⁸	Y ⁸	Y	A	B	N

Land Use		APZs			Noise Zones			
SLUCM No.	Name	CZ	APZ I	APZ II	65-69 dBA	70-74 dBA	75-79 dBA	80+ dBA
60	Services (continued)							
64	Repair services	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
65	Professional services	N	N	Y ⁶	Y	A	B	N
65.1	Hospitals, nursing homes	N	N	N	A*	B*	N	N
65.1	Other medical facilities	N	N	N	Y	A	B	N
66	Contract construction services	N	Y ⁶	Y	Y	A	B	N
67	Governmental services	N	N	Y ⁶	Y*	A*	B*	N
68	Educational services	N	N	N	A*	B*	N	N
69	Miscellaneous services	N	N ²	Y ²	Y	A	B	N
70	Cultural, entertainment, and recreational services							
71	Cultural activities (including churches)	N	N	N ²	A*	B*	N	N
71.2	Nature exhibits	N	Y ²	Y	Y*	N	N	N
72	Public assembly	N	N	N	Y	N	N	N
72.1	Auditoriums, concert halls	N	N	N	A	B	N	N
72.11	Outdoor music shell, amphitheaters	N	N	N	N	N	N	N
72.2	Outdoor sports arenas, spectator sports	N	N	N	Y ¹⁷	Y ¹⁷	N	N
73	Amusements	N	N	Y ⁸	Y	Y	N	N
74	Recreational activities (including golf courses, riding stables, water recreation)	N	Y ^{8,9,10}	Y	Y*	A*	B*	N
75	Resorts and group camps	N	N	N	Y*	Y*	N	N
76	Parks	N	Y ⁸	Y ⁸	Y*	Y*	N	N
79	Other cultural, entertainment, and recreational activities	N	Y ⁹	Y ⁹	Y*	Y*	N	N
80	Resources production and extraction							
81	Agriculture (except livestock)	Y ¹⁶	Y	Y	Y ¹⁸	Y ¹⁹	Y ²⁰	Y ^{20,21}
81.5 to 81.7	Livestock farming and animal breeding	N	Y	Y	Y ¹⁸	Y ¹⁹	Y ²⁰	Y ^{20,21}
82	Agriculture-related activities	N	Y ⁵	Y	Y ¹⁸	Y ¹⁹	N	N
83	Forestry activities and related services	N ⁵	Y	Y	Y ¹⁸	Y ¹⁹	Y ²⁰	Y ^{20,21}
84	Fishing activities and related services	N ⁵	Y ⁵	Y	Y	Y	Y	Y
85	Mining activities and related services	N	Y ⁵	Y	Y	Y	Y	Y
89	Other resources production and extraction	N	Y ⁵	Y	Y	Y	Y	Y

Source: DODI 1977, FICUN 1980, and USURA 1965

Key:

- SLUCM Standard Land Use Coding Manual, USURA.
- Y = Yes Land uses and related structures are compatible without restriction.
- N = No Land use and related structures are not compatible and should be prohibited.
- Y^x = Yes with restrictions Land use and related structures generally compatible; see notes indicated by the superscript.
- N^x = No with exceptions See notes indicated by the superscript.
- NLR Noise Level Reduction (NLR) (outdoor to indoor) to be achieved through incorporation of noise attenuation measures into the design and construction of the structures.
- A, B, or C Land use and related structures generally compatible; measures to achieve NLR for A (DNL of 65-69 dBA), B (DNL of 70-74dBA), C (DNL of 75-79) need to be incorporated into the design and construction of structures.
- A*, B*, and C* Land use generally compatible with NLR; however, measures to achieve an overall noise level reduction do not necessarily solve noise difficulties and additional evaluation is warranted. See appropriate notes below.
- * The designation of these uses as “compatible” in this zone reflects individual Federal agencies and program considerations of general cost and feasibility factors, as well as past community experiences and program objectives. Localities, when evaluating the application of these guidelines to specific situations, might have different concerns or goals to consider.

Notes:

1. Suggested maximum density of 1 to 2 dwelling units per acre, possibly increased under a Planned Unit Development where maximum lot coverage is less than 20 percent.
2. Within each land use category, uses exist where further deliberating by local authorities might be needed due to the variation of densities in people and structures. Shopping malls and shopping centers are considered incompatible uses in any accident potential zone.
3. The placement of structures, buildings, or aboveground utility lines in the CZ is subjected to severe restrictions. In a majority of the CZs, these items are prohibited. See AFI 32-7060, *Interagency and Intergovernmental Coordination for Environmental Planning* (USAF, 1994), and Unified Facilities Criteria (UFC) 3-260-01, *Airfield and Heliport Planning and Design* (DOD 2001), for specific guidance.
4. No passenger terminals and no major aboveground transmission lines in APZ I.
5. Factors to be considered: labor intensity, structural coverage, explosive characteristics, and air pollution.
6. Low-intensity office uses only. Meeting places, auditoriums, and the like are not recommended.
7. Excludes chapels.
8. Facilities must be low-intensity.
9. Clubhouse not recommended.
10. Areas for gatherings of people are not recommended.
11. (a) Although local conditions might require residential use, it is discouraged in DNL of 65-69 dBA noise zone and strongly discouraged in DNL of 70-74 dBA noise zone. The absence of viable alternative development options should be determined and an evaluation should be conducted prior to approvals indicating a demonstrated community need for residential use would not be met if development were prohibited in these zones.
(b) Where the community determines the residential uses must be allowed, measures to achieve outdoor to indoor NLR for the DNL of 65-69 dBA noise zone and the DNL of 70-74 dBA noise zone should be incorporated into building codes and considered in individual approvals.
(c) NLR criteria will not eliminate outdoor noise problems. However, building location and site planning, and design and use of berms and barriers can help mitigate outdoor exposure, particularly from near ground level sources. Measures that reduce outdoor noise should be used whenever practical in preference to measures that only protect interior spaces.
12. Measures to achieve the same NLR as required for facilities in the DNL of 65-69 dBA noise zone must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
13. Measures to achieve the same NLR as required for facilities in the DNL of 70-74 dBA noise zone must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
14. Measures to achieve the same NLR as required for facilities in the DNL of 75-79 dBA noise zone must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
15. If noise-sensitive, use indicated NLR; if not, the use is compatible.
16. No buildings.
17. Land use is compatible provided special sound reinforcement systems are installed.

18. Residential buildings require the same NLR as required for facilities in the DNL of 65-69 dBA noise zone.
19. Residential buildings require the same NLR as required for facilities in the DNL of 70-74 dBA noise zone.
20. Residential buildings are not permitted.
21. Land use is not recommended. If the community decides the use is necessary, personnel should wear hearing protection devices.

Appendix G

**Proposed Memorandum of Understanding
Between
City of Belen
And
County of Valencia**

This Memorandum of Understanding ("MOU") dated this ____ day of _____, 2012, is entered into between the City of Belen, New Mexico (hereinafter "CITY"), and Valencia County, New Mexico (hereinafter "COUNTY"), collectively referred to as the "Parties". The purpose of this MOU is to establish common standards for the CITY and the COUNTY to regulate land use and development around the Belen Alexander Municipal Airport.

Section I. RECITALS

- A. The CITY and the COUNTY, as Parties to this Agreement, desire to coordinate the regulation of land use around the Belen Alexander Municipal Airport in order to provide both airspace protection and land use compatibility with the current and future operations of the airport.
- B. Municipal airport facilities are subject to the planning and zoning laws and other ordinances and regulations applicable to the area in which the airport facility is located [3-39-5 NMSA 1978].
- C. Belen Alexander Municipal Airport is owned and operated by the CITY and is situated entirely within the municipal boundary of the CITY; however, the adjacent and surrounding lands outside the Airport property lies with the jurisdiction of the COUNTY.

Section 2. UNDERSTANDINGS

The Parties agree to the following:

- A. The provisions of the airport zoning regulations of the CITY [Chapter 11.12, Airport Zoning Regulations] pertaining to the approach zones, transitional zones, horizontal zone, and conical zone shall prevail both inside and outside the municipal limits of the CITY. The COUNTY airport overlay zones pertaining to the height limitation zone, the noise impact zone, and airport runway protection zone [Section 154.153, Airport Encroachment Overlay District] shall apply only within the unincorporated areas of the COUNTY in proximity to the Belen Alexander Municipal Airport.
- B. The municipal planning and platting jurisdiction of the CITY includes unincorporated territory within a radius of three (3) miles outside the municipal boundary [3-20-5 NMSA 1978]. Any proposed subdivision of land outside the CITY municipal limits within the municipal planning and platting jurisdiction shall be subject to concurrent review and approval by the CITY and the COUNTY [3-20-9 NMSA 1978].
- C. The CITY and the COUNTY, within their respective jurisdictions, shall require subdividers of land within one (1) mile of the airport runways of the Belen Alexander Municipal Airport to provide written disclosure to current and future property owners regarding airport noise, vibration, odor, visual and all other effects that may be caused by the operation of aircraft landing at or taking off from Belen Alexander Municipal Airport.
- D. An official airport zoning map delineating the airport overlay zones as defined by the CITY and COUNTY airport zoning ordinances shall be attached and made a part of this MOU. The airport zoning map shall also include the current underlying zoning categories defined by the CITY and COUNTY zoning ordinances and the delineation of the boundary of the municipal planning and platting jurisdiction. A copy of the airport zoning map shall be filed with the Valencia County Clerk as an official record.
- E. The CITY and the COUNTY shall collaborate in the development and implementation of a joint airport area master plan for Belen Alexander Municipal Airport. A master plan study area shall be established by consent of the CITY and COUNTY governing bodies. Preparation of a long range land development plan for the airport area will provide a basis for appropriate zoning and other land use regulations administered by the CITY and COUNTY.
- F. The CITY and the COUNTY shall collaborate in the development and adoption of outdoor lighting regulations in compliance with the state statutes regarding the Night Sky Protection Act [74-12-1 to 74-12-10 NMSA 1978] in order to minimize the adverse offsite impacts of obtrusive light for aircraft operations from development on the lands within one (1) mile of the airport runways of the Belen Alexander Municipal Airport.

Section 3. OTHER PROVISIONS

- A. No party shall be responsible for liability incurred as a result of any other party's acts of omissions in connection with this MOU. Any liability incurred in connection with this MOU is subject to the immunities and limitations of the Tort Claims Act.
- B. The term of this MOU shall be for an indefinite period of time but may be terminated at any time by either Party following notification in writing at least ninety (90) days prior to the termination date.
- C. This MOU shall not be altered, changed, or amended except by instrument in writing executed by the parties.
- D. The effective date of this MOU shall be the date as stated in the first paragraph of this MOU.
- E. This MOU shall be governed by the laws of the State of New Mexico.
- F. If any provision of this MOU shall be found by a court of competent jurisdiction to be illegal, in conflict with any law of the State of New Mexico or otherwise unenforceable, the validity and enforceability of the remaining provisions shall not be affected and the rights and obligations of the Parties shall be construed and enforced as if this MOU did not contain the particular provision found to be illegal, invalid or otherwise unenforceable.

Signatories:

CITY OF BELEN

BY: _____ DATE: _____
Mayor, City of Belen

VALENCIA COUNTY

BY: _____ DATE: _____
Chair, Board of County Commissioners

Appendix H

Kirtland Air Force Base Avigation and Noise Easement

WHEREAS, _____ (name), hereinafter called the "Grantor", is the owner in fee simple of that certain parcel of land situated at _____ (street address), in the County of Bernalillo, State of New Mexico, and more particularly described by legal description as follows:

WHEREAS, the Grantor has been advised that the above described property is located in a noise exposure zone caused by the operations of Kirtland Air Force Base. Kirtland Air Force Base shall be referred to as the "Grantee" whose properties have been designated for use by the Department of Defense of the United States of America.

NOW, THEREFORE, the Grantor, in consideration of _____ dollars (\$____) and other good and valuable consideration, receipt of which is hereby acknowledged, does hereby grant to Grantee a perpetual nonexclusive easement and right-of-way in and over the above described property of the Grantor for the free and unrestricted passage and flight of military aircraft to an infinite height above the surface of Grantor's property, together with the right to cause noise, vibration, odor, visual, and all other effects that may be caused by any other military operations conducted by the Grantee. It is understood and agreed that said easement shall run with the land and apply to all subsequent land owners, successors, assigns or lessees.

AND, Grantor agrees not to bring any action, claim, suit or legal proceedings against the Grantee based upon the impacts due to such noise, vibration, odor, visual, and all other effects that may be caused by military operations conducted by the Grantee so long as the military operations are conducted in compliance with Federal Regulations and all other applicable governmental laws and regulations.

AND, Grantor further agrees that in order to assure safe passage of military aircraft landing at or taking off from Kirtland Air Force Base, no structure shall be erected, altered, or maintained, and no tree shall be allowed to grow or be maintained such that encroachment of navigable airspace results. Any new construction or alteration of existing structures on Grantor's property that may pose a hazard to flight or have an adverse effect on KAFB operations must notify the FAA (Federal Aviation Administration) to determine if the structure is an object affecting navigable airspace. A notice of proposed construction or alteration may be obtained at the following website: http://www.faa.gov/documentLibrary/media/Form/FAA%20Form%207460-1_2012.pdf

AND, this easement as it pertains to the free and unobstructed passage and effects of the flight of military aircraft shall not be applied so as to deny to the Grantor the right of and privilege to build, install or erect buildings and other structures and improvements on Grantor's property in accordance with the zoning approved by the local municipal or county governing body.

IN TESTIMONY WHEREOF, the undersigned property owner has hereunto subscribed his/her name this _____ day of _____, 20__.

Signed by: _____ Attest: _____

Legal Property Owner(s)

ACKNOWLEDGEMENT

STATE OF NEW MEXICO)

) ss.

COUNTY OF BERNALILLO)

On this day personally appeared before me, a Notary Public in and for said State and County, known or identified to me to be the person(s), on the basis of satisfactory evidence, described in and who executed the within instrument, and acknowledged that he/she/they signed the same for the purposes therein contained.

WITNESS my hand and seal, this ____ day of _____, 20__.

Signature of Notary Public

Notary Seal

My Commission Expires: _____

Appendix I

KAFB – Military Influence Area

Land Use Compatibility Guidelines for MRCOG Development Review

- (1) Areawide
 - a) Reference: applicable Comprehensive, Area, and/or Sector Development Plans regarding KAFB compatibility issues.
 - b) Confirm receipt of Fact Sheet disclosure statement by applicant.
 - c) Encourage or promote low density and low intensity development; evaluate rezoning which results in increased density.
 - d) Recommend real estate disclosure to prospective purchasers of property in the MIA.
 - e) Recommend dark sky lighting in proposed developments within the MIA.
 - f) Request comments from KAFB for proposed large scale or high density projects.

- (2) Noise Impact Zones
 - a) Reference: FAR Part 150 [49 CFR Part 150] airport noise contour lines of 65 Ldn or greater as shown in zoning atlas.
 - b) Recommend sound attenuation in new construction within all noise contours.
 - c) Advise applicant that residential uses, hospitals, schools, places of worship, and locations of public gatherings (with the exception of air shows) are prohibited within the AP-1 Airport Protection Overlay Zone (i.e., inside the 75 Ldn contour line).

- (3) Airspace Protection Areas
 - a) Reference: FAR Part 77 imaginary surfaces [49 CFR Part 77] as displayed in the Albuquerque International Airport Master Plan.
 - b) Contact City Aviation Department of potential ground-based obstructions to airspace suspected in development proposal and provide information to applicant regarding limitations to structure heights near airport.

- (4) Approach/Departure Corridors
 - a) Reference: Albuquerque International Airport Master Plan to identify runway approach surfaces (i.e., Runway 8 and Runway 3).
 - b) Contact City Aviation Department of potential ground-based obstructions to airspace suspected in development proposal and provide information to applicant on limitations to structure heights within runway approach surfaces within two miles of the end of runway.
 - c) Recommend to applicants the avoidance of land uses creating hazards to aircraft such as thermal or smoke plumes, glare, electronic interference, or lighting that could mislead pilots.
 - d) Discourage high density residential, office, commercial, and industrial land uses in approach/departure corridors within two miles of the end of runway.
 - e) Discourage landfills or permanent water ponding features which can attract birds and other wildlife.

Appendix J

City of Albuquerque – Bernalillo County Kirtland Air Force Base Military Influence Area

FACT SHEET

Disclosure Notice

This Fact Sheet provides information concerning property located within the Military Influence Area (MIA) of Kirtland Air Force Base (KAFB). The MIA essentially surrounds KAFB as a buffer area that includes civilian communities adjacent to the boundary of KAFB (refer to attached map). Your property has been identified as being located in the Kirtland MIA.

Land use and development on properties located in the Kirtland MIA may be subject to the following impacts due to the operations at KAFB, including aviation activities at Albuquerque International Sunport:

- Noise disturbance
- Vibrations
- Odors
- Aircraft overflights
- Nighttime missions and operations

Land Use Compatibility

Kirtland Air Force Base is crucial to the economy of Albuquerque, Bernalillo County, and the State of New Mexico. In order to ensure the long-term viability of the missions and activities on KAFB and the Albuquerque Sunport, land use and development in the vicinity should be compatible with the Base and airport. Review of applications for proposed development in the Kirtland MIA will be conducted by appropriate agencies to determine if there are any issues of compatibility with KAFB and Albuquerque International Airport.

Some areas within the Kirtland MIA may be determined through the development review process to be within airport-related safety zones such as:

- noise protection overlay zones, or
- areas of land extending some distance off the end of certain airport runways where military aircraft are taking off or landing, or
- areas near airport runways that may be subject to height regulations of man-made structures and natural objects to protect the airspace around the runway.

Airport Noise Complaints

There are two ways to file an aircraft noise complaint:

- 1) Call the Noise Hotline of the Noise Office at 505-842-2007. This Hotline will prompt and record your complaint, including the time and place of the occurrence.
- 2) Call the Noise Office directly at 505-244-7717.

Appendix K

Kirtland JLUS Implementation Project

Proposed revisions to Chapter 14 of the City of Albuquerque Code of Ordinances

§ 14-16-2-28 OVERLAY ZONES.

The following overlay zones apply to areas where they are mapped in addition to the provisions of another zone. Where the provisions of overlay zones conflict with the provisions of another section of this Zoning Code, the provisions of the overlay zone shall prevail.

(E) AP Airport Protection Overlay Zones.

(1) These overlay zones are appropriate to be used in the vicinity of airports. ~~They are particularly appropriate for essentially undeveloped land.~~ The purpose of these ~~airport protection~~ overlay zones is to ~~restrict development sensitive to noise exposure and to encourage sound attenuation in buildings by utilizing construction materials and designs to minimize interior noise levels in buildings. land use patterns that will separate uncontrollable noise sources from residential and other noise-sensitive areas and to facilitate the orderly development of areas around airports.~~

(2) The boundaries of the ~~following~~ ~~airport protection~~ overlay zones shall be based on ~~aviation sound contours delineated on the official zoning map. Sound contours are defined as the geographic interpolation of the Ldn contours which are basic measures for the day-night average sound level pertaining to noise exposure. expected airport area intermittent noise levels, based on averaged ambient conditions and existing and projected aircraft operations.~~ The effect of noise generated by any other specific land use is not reflected in the Ldn contours which are used to establish the ~~airport protection~~ overlay zone boundaries.

(3) AP-1.

(a) The AP-1 Airport ~~Protection Overlay~~ ~~Overlay Zone~~ ~~may~~ shall be mapped in areas which, due to the ~~operation~~ landing or takeoff of aircraft, the noise rating is ~~more~~ greater than 75 Ldn based on the sound impact calculation methodologies specified in Federal Aviation Administration, Codified Federal Regulations (CFR) Part 150 – Airport Noise Compatibility Planning.

(b) Permissive Uses. In addition to the limitations on development and use contained in the underlying zone, uses allowed in this overlay zone are limited to the following:

1. ~~Agriculture including incidental nonresidential facilities, except mink and poultry production.~~ Structures necessary and incidental to airport operations.
2. ~~Fishing;~~ Agricultural croplands.
3. Mining.
2. Open Space.
3. Parking of vehicles.
4. Transportation ~~routes, including roads, rail lines, and plane runways or taxiways~~ infrastructure, subject to the regulations and restrictions identified in the Federal Aviation Regulations, Codified Federal Regulations (CFR) Part 77 – Objects Affecting Navigable Airspace.

(c) Prohibited Uses. The following uses are prohibited within the AP-1 Airport Protection Overlay Zone:

1. All residential uses.
2. Hospitals.
3. Schools.
4. Places of Worship.
5. Locations of public gatherings, with the exception of air shows.

(4) AP-2.

(a) The AP-2 Airport Protection Overlay Zone ~~may~~ shall be mapped in areas ~~in~~ which, due to the landing or takeoff of aircraft, the noise rating is ~~over~~ greater than 65 Ldn ~~and not more~~ but less than 75 Ldn based on the sound impact calculation methodologies specified in Federal Aviation Administration, Codified Federal Regulations (CFR) Part 150.

(b) Permissive Uses. In addition to the limitations on development and use contained in the underlying zone, uses allowed in this overlay zone are limited to the following:

1. Uses allowed in the AP-1 ~~Airport Protection Overlay Zone~~ ~~overlay zone~~:
2. Cemetery.
3. Commercial ~~or business activities~~ ~~activity~~ (including manufacturing, transportation facilities, retailing, ~~administrative offices~~, services, utilities, warehousing and wholesaling) except:
 - a. Outdoor theaters and stadiums are not permissive.
 - b. Hotels and motels are permitted only if:
 - i. Construction techniques provide ten decibels extra noise reduction over the industry average for similar structures; certification of such reduction by a qualified architect, or structural engineer registered in the State of New Mexico shall be presented to show compliance; and
 - ii. Airport hazard insurance is available to said establishments.

(5) Conditional Uses ~~in AP-1 or AP-2~~. Any permissive use or conditional use allowed by the underlying zone and not permissive in the overlay zone, provided that due to the particular nature of the use or the special character of the enclosing structure it is clear that:

- (a) The use will not be adversely affected by noise expected to be generated by operation of aircraft; or
- (b) A small amount of adverse effect from the noise expected to be generated by operation of aircraft is clearly outweighed by a special need for the use at the site proposed.

Memorandum of Understanding Between City of Albuquerque And Kirtland Air Force Base

This Memorandum of Understanding (“MOU”) dated this ___ day of _____, 2013, is entered into between the City of Albuquerque (hereinafter “CITY”), and Kirtland Air Force Base, New Mexico (hereinafter “KAFB”), collectively referred to as the “Parties.” The purpose of this MOU is to sanction a notification and review process between the Parties to ensure compatible development near the boundary of KAFB.

Section I. RECITALS

- A. A Joint Land Use Study (JLUS) was completed and published for KAFB on June 30, 2010, to promote collaboration between military commanders and local leaders in order to ensure compatible development near military installations. The JLUS included recommendations for implementation which provide a basis for this MOU.
- B. The CITY and KAFB share a common border along various segments of the KAFB boundary, and are active participants in the implementation of recommendations presented in the JLUS.
- C. A Military Influence Area, referred to as the Kirtland MIA, has been defined in order to identify a special regulatory area encircling KAFB where specific compatibility issues are likely to occur. A map delineating the Kirtland MIA has been endorsed by the JLUS Implementation Team and is attached and made a part of this MOU.
- D. The Parties wish to enter into this MOU to establish notification and communication protocols concerning land development activities occurring within the Kirtland MIA and within KAFB as they may affect either of the Parties.

Section 2. UNDERSTANDINGS

- A. The Parties agree to the following:
 - 1. The Kirtland MIA is designated as a special planning and development review area where land use activities adjacent to KAFB may affect the ability of KAFB to carry out its missions, and conversely, where KAFB military operations may impact adjacent neighborhoods.
 - 2. Standard procedures carried out by the CITY for reviewing and approving land development within the Kirtland MIA will include special consideration regarding the compatibility of land use activities with the missions and operations of the KAFB.
 - 3. Communication and coordination between KAFB and the CITY requires a notification and information exchange protocol that identifies fixed administrative positions rather than individuals who periodically change by command or election cycle. Administrative positions should hold the appropriate authority and responsibilities as the primary contact for given issues.

B. The CITY agrees to the following:

1. Primary communication and coordination administrative positions for the CITY are:

ISSUE	CONTACT	TELEPHONE
Administration	Chief Administrative Officer	768-3000 (mayor's office main line)
Emergency Management	Office of Emergency Management	833-7381
Planning/Development	Planning Department	924-3860 (3 rd floor, main desk)

2. That portion of the Kirtland MIA occurring within the jurisdiction of the CITY will be delineated by the Mid Region Council of Governments using spatial data coverage on a GIS (Geographic Information System).
3. The MRCOG will provide comments to the City as part of MRCOG's agency review of Environmental Planning Commission Application
4. KAFB is entitled to notice as an adjacent property owner for Development Review Board and Environmental Planning Commission hearings that occur within the MIA.

C. KAFB agrees to the following:

1. Primary communication and coordination administrative positions for KAFB are:

ISSUE	CONTACT	TELEPHONE
Administration	Base Commander	505-846-7377
Emergency Management	Base Civil Engineer	505-846-7911
Engineering/Infrastructure	Base Civil Engineer	505-846-7911
Noise Complaints	Public Affairs	505-846-5991

2. KAFB will continue to assess the feasibility of acquiring control of property within the CITY to ensure land use compatibility, subject to consultation and coordination with the CITY.

Section 3. OTHER PROVISIONS

1. The effective date of this MOU shall be the date as stated in the first paragraph of this MOU. Subsequently, this MOU shall be reviewed and reaffirmed every two years to maintain a current protocol for notification and information exchange.
2. The term of this MOU shall be for an indefinite period of time but may be terminated at any time by either Party following notification in writing at least ninety (90) days prior to the termination date.

3. In performing this MOU, each Party shall comply with all applicable federal, state and local laws, rules and regulations.
4. This MOU shall not be altered, changed, or amended except by instrument in writing executed by the parties.

Signatories:

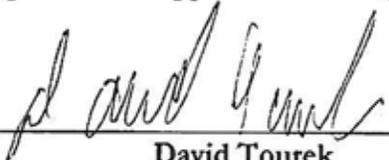
CITY OF ALBUQUERQUE

BY:  DATE: 4/12/13 ID _____
Name
Chief Administrative Officer

KIRTLAND AIR FORCE BASE

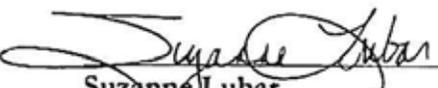
BY:  DATE: 9 Jul 13
Name
KAFB Base Commander

Approved: Approved as to Legal Form:


Name
David Tourek
City Attorney

4/10/13
Date 4/17/13

Recommended:

 4/8/13
Name
Suzanne Lubar
Acting Planning Department Director

Appendix M

**Proposed Memorandum of Understanding
Between
Bernalillo County
And
Kirtland Air Force Base**

This Memorandum of Understanding ("MOU") dated this ____ day of _____, 2012, is entered into between Bernalillo County, New Mexico (hereinafter "COUNTY"), and Kirtland Air Force Base, New Mexico (hereinafter "KAFB"), collectively referred to as the "Parties". The purpose of this MOU is to establish standard operating procedures for notification and communication between the Parties concerning land use and development around KAFB.

Section I. RECITALS

- A. A Joint Land Use Study (JLUS) was completed and published for KAFB on June 30, 2010, to promote collaboration between military commanders and local leaders in order to ensure compatible development near military installations. The JLUS included recommendations for implementation which provide a basis for this MOU.
- B. The COUNTY and KAFB share a common border along various segments of the KAFB boundary, and are active participants in the implementation of recommendations presented in the JLUS.
- C. A Military Influence Area, referred to as the Kirtland MIA, has been defined in order to identify a special regulatory area encircling KAFB where specific compatibility issues are likely to occur. A map delineating the Kirtland MIA has been endorsed by the JLUS Implementation Team and is attached and made a part of this MOU.
- D. The Parties wish to enter into this MOU to establish notification and communication protocols concerning land development activities occurring within the Kirtland MIA and within KAFB as they may affect either of the Parties.

Section 2. UNDERSTANDINGS

- A. The Parties agree to the following:
 - 1. The Kirtland MIA is designated as a special planning and development review area where land use activities adjacent to KAFB may affect the ability of KAFB to carry out its missions, and conversely, where KAFB military operations may impact adjacent neighborhoods.
 - 2. Standard procedures carried out by the COUNTY for reviewing and approving land development within the Kirtland MIA will include special consideration regarding the compatibility of land use activities with the missions and operations of the KAFB.
 - 3. Communication and coordination between KAFB and the COUNTY requires a notification and information exchange protocol that identifies fixed administrative positions rather than individuals who periodically change by command or election cycle. Administrative positions should hold the appropriate authority and responsibilities as the primary contact for given issues.
- B. The COUNTY agrees to the following:
 - 1. Primary communication and coordination administrative positions for the COUNTY are:

Issue	Contact	Telephone
Administration	County Manager	505-468-7000
Emergency Management	Homeland Security Staff	505-468-1307
Land Use/Development	Development Mgr./Dept. Director	505-314-0350
Neighborhood Communication	Office of Neighborhood Coordination	505-468-1279

2. That portion of the Kirtland MIA occurring within the jurisdiction of the COUNTY will be delineated by the Mid Region Council of Governments, on a GIS (Geographic Information System) data base using spatial data coverage to define an area that may be subject to special development review and land use requirements to ensure compatible development near KAFB.
3. The COUNTY will upload and maintain spatial data coverage to identify current airport noise contours, runway clear zones, aircraft accident potential zones, runway airspace surfaces, and height restrictions for KAFB flying operations. These elements will be reviewed periodically in coordination with the Mid Region Council of Governments in order to maintain current data.
4. All public notices for hearings regarding planned development or redevelopment, zoning and subdivision actions, areawide or sector plans, and capital improvements that may affect property located within the Kirtland MIA shall be submitted to the appropriate administrative position in KAFB following the legal notification procedures for Bernalillo County.
5. A representative from KAFB shall be included in the Development Review list in order to receive pertinent planning application packets and have the opportunity to submit comments.

C. KAFB agrees to the following:

1. Primary communication and coordination administrative positions for KAFB are:

Issue	Contact	Telephone
Administration	Base Commander	
Emergency Management		
Engineering/Infrastructure		
Noise Complaints		

2. Due to ongoing changes in aircraft operations and aircraft fleet mix at KAFB, and in order to protect the long term operational integrity of military aviation missions in the Albuquerque region, KAFB will periodically conduct an Air Installation Compatible Use Zone (AICUZ) Study in order to promote compatible land use in areas subject to aircraft noise and accident potential.
3. KAFB will continue to assess the feasibility of acquiring control of property within the COUNTY to ensure land use compatibility, subject to consultation and coordination with the COUNTY. Acquisition strategies to control land use without ownership include lease arrangements, acquiring easements, applications for zoning actions, and any other actions deemed appropriate.

Section 3. OTHER PROVISIONS

- A. The effective date of this MOU shall be the date as stated in the first paragraph of this MOU. Subsequently, this MOU shall be reviewed and reaffirmed every two years to maintain a current protocol for notification and information exchange.
- B. The term of this MOU shall be for an indefinite period of time but may be terminated at any time by either Party following notification in writing at least ninety (90) days prior to the termination date.
- C. In performing this MOU, each Party shall comply with all applicable federal, state and local laws, rules and regulations.
- D. This MOU shall not be altered, changed, or amended except by instrument in writing executed by the parties.

Signatories:

BERNALILLO COUNTY

BY: _____ DATE: _____

Name
County Manager

KIRTLAND AIR FORCE BASE

BY: _____ DATE: _____

Name
KAFB Base Commander

Appendix N

**Proposed Memorandum of Understanding
Between
Pueblo of Isleta
And
Kirtland Air Force Base**

This Memorandum of Understanding ("MOU") dated this ____ day of _____, 2012, is entered into between the Pueblo of Isleta, a federally recognized Indian tribe (hereinafter "PUEBLO"), and Kirtland Air Force Base, New Mexico (hereinafter "KAFB"), collectively referred to as the "Parties". The purpose of this MOU is to establish a standard operating procedure for notification and communication between the Parties.

Section I. RECITALS

- A. A Joint Land Use Study (JLUS) was completed and published for KAFB on June 30, 2010, to promote collaboration between military commanders and local leaders in order to ensure compatible development near military installations.
- B. The Parties are active participants in the implementation of recommendations presented in the JLUS.
- C. A Military Influence Area (MIA) has been delineated and accepted by the JLUS Implementation Team representing the affected governmental jurisdictions. The purpose of the MIA is to identify a special regulatory area completely encircling KAFB for purposes of implementing the JLUS.
- D. The PUEBLO and KAFB share a common border along the southern boundary of KAFB. A portion of the MIA essentially creates a buffer zone along the northern boundary of the PUEBLO lands.
- E. The parties wish to enter into this MOU to establish communication protocols concerning the impact of development and activities occurring within the MIA and the KAFB as they may affect either of the Parties.

Section 2. UNDERSTANDINGS

- A. The Parties agree to the following:
 - 1. Mutual consultation and notification of activities on both sides of the KAFB boundary are warranted to address the concerns of the Parties regarding compatibility of military and tribal activities.
 - 2. A written protocol for notification and information exchange between KAFB and the PUEBLO identifying single points of contact and dedicated channels of communication between the Parties shall be enacted within thirty (30) days following the effective date of this MOU.
- B. The PUEBLO agrees to the following:
 - 1. The PUEBLO will notify KAFB concerning dates and times of major traditional and cultural events that require a noise and disturbance free environment.
 - 2. The PUEBLO will periodically patrol the northern Reservation lands in order to restrict the number of trespassers and unauthorized vehicles within the MIA on PUEBLO lands.
 - 3. The PUEBLO reserves the right for future development on the lands within the MIA despite the fact that there are no current plans for such development.
- C. KAFB agrees to the following:
 - 1. The KAFB will avoid the airspace, to the extent possible, directly over the traditional PUEBLO village, and minimize low level flyovers of populated areas on PUEBLO lands.
 - 2. The PUEBLO shall be kept informed regarding the general nature and extent of explosives testing and weapons firing on KAFB.
 - 3. When military accidents occur on PUEBLO lands, the PUEBLO shall be notified promptly and advised on a coordinated joint response effort.

Section 3. OTHER PROVISIONS

1. The effective date of this MOU shall be the date as stated in the first paragraph of this MOU. Subsequently, this MOU shall be reviewed and reaffirmed annually to maintain a current protocol for notification and information exchange.
2. The term of this MOU shall be for an indefinite period of time but may be terminated at any time by either Party following notification in writing at least ninety (90) days prior to the termination date.
3. This MOU shall not be altered, changed, or amended except by instrument in writing executed by the parties.

Signatories:

PUEBLO OF ISLETA

BY: _____ DATE: _____
Honorable Governor Frank E. Lujan
Governor, Pueblo of Isleta

KIRTLAND AIR FORCE BASE

BY: _____ DATE: _____
Name
KAFB Base Commander

**Memorandum of Understanding
Between
The New Mexico State Land Office
And
Kirtland Air Force Base**

This Memorandum of Understanding ("MOU") dated this 30 day of July, 2013 (the "Effective Date"), is entered into between the COMMISSIONER OF PUBLIC LANDS OF THE STATE OF NEW MEXICO, Trustee for the Enabling Act Trust, Act of June 20, 1910, 36 Stat. 557, ch. 310 (the "Commissioner"), and KIRTLAND AIR FORCE BASE, NEW MEXICO (hereinafter "KAFB"), collectively referred to as the "Parties". The purpose of this MOU is to establish standards for the effective implementation of the Joint Land Use Study (the "JLUS") with respect to New Mexico State Trust Land ("Trust Land") and for the use of Trust Lands for the reciprocal benefit of the Parties and the State of New Mexico.

Section I. RECITALS

- A. **WHEREAS**, The Parties participated in the development of a Joint Land Use Study (JLUS) which was completed and published for KAFB on June 30, 2012, to promote collaboration between military commanders and local leaders in order to ensure compatible development near military installations; and
- B. **WHEREAS**, The JLUS Planning Area encompasses the four-county area of Sandoval, Bernalillo, Valencia and Tarrant Counties, and the JLUS Study Area incorporates a five-mile buffer surrounding KAFB; and
- C. **WHEREAS**, The Commissioner holds and manages approximately 533,643 surface acres of Trust Land within the JLUS Planning Area, approximately 11,500 surface acres of which are within the JLUS Study Area; and
- D. **WHEREAS**, The Commissioner has sole authority to direct, control, care for and dispose of all Trust Lands pursuant to Article XIII, Section 2, of the New Mexico Constitution, but working cooperatively, transparently, fairly and in good faith with the KAFB and related stakeholders, and in compliance with all laws, is of benefit to Trust Lands and their beneficiaries; and
- E. **WHEREAS**, Trust Land is generally exempt from local land use regulations and the Commissioner may lease the trust land to third parties for any purpose including land development and renewable energy development; and
- F. **WHEREAS**, The Commissioner has worked collaboratively with KAFB to responsibly plan and develop the Mesa del Sol community, the Sandia Science and Tech Park and La Semilla, all of which are located within the JLUS Study Area; and
- G. **WHEREAS**, KAFB has been consulted in the planning of Mesa del Sol and La Semilla, and concurred with the adoption of the Mesa del Sol Master Plan which incorporates the La Semilla Master Plan; and
- H. **WHEREAS**, The Commissioner has an ongoing partnership with the U.S. Department of Energy ("DOE") through the 100 year lease of the approximately

2,700 acre La Semilla property to DOE, which lease serves as a buffer zone along KAFB's southwestern boundary while permitting passive and active uses compatible with KAFB's mission, and compliant with the terms and conditions of the lease and LaSemilla Master Plan.

- I. **WHEREAS**, Recommendation 2, JLUS § 4.2, is to develop memoranda of understanding to promote efficient and effective coordination between KAFB and stakeholders; and
- J. **WHEREAS**, The Parties wish to enter into this MOU to establish protocols concerning the impact of development and activities occurring within the JLUS Study Area as they may concern or affect either of the Parties; and
- K. **WHEREAS**, the Parties have previously discussed the potential use of State Trust Lands statewide for training activities, to include helicopter landing and drop zone training, the Parties will explore possible agreements that may meet the aforementioned needs of KAFB while fulfilling the mission of the SLO;
- L. **NOW THEREFORE**, the Parties agree as follows:

Section 2. UNDERSTANDINGS

- 1. **Recitals**. The Recitals are incorporated herein.
- 2. **Honoring Existing Plans**. The Parties agree to honor and support the implementation of the Mesa del Sol, La Semilla, and Sandia Science and Technology Park Master Plans and the JLUS, so long as the implementation is consistent with the terms and conditions of the Lease and the Mesa del Sol Level A Plan.
- 3. **Continued Use of Trust Lands to Support Department of Defense Missions**. The Parties will work together to continue promoting opportunities for the use of Trust Lands for the benefit of the State Land Trust and Department of Defense, including but not limited to identifying Trust Lands, both Statewide and within the JLUS Study Area, that may be suitable for leasing for the purpose of helicopter training, landing facilities or other facilities relating to Department of Defense missions.
- 4. **Consultation**. The Parties will advise and consult with one another regarding:
 - A. any proposed change of land use for their respective lands within the JLUS Study Area or on other SLO trust lands encumbered by grants of use to the Air Force, including but not limited to instances where the Commissioner has received or may receive applications for wind energy development on Trust Lands;
 - B. any new DoD missions or changes or additions to missions that might impact the SLO's lands or potential use of said lands throughout the state;
 - C. any SLO actions on Trust Lands potentially impacting DoD flight corridors, training routes, and or bomb and training ranges; and

D. The Party's primary points of contact for at least bi-annual consultation or as otherwise mutually agreed upon are:

1. Primary communication and coordination administrative positions for the State Land Office are:

ISSUE	CONTACT	TELEPHONE
Administration	Commissioner of Public Lands	505-827-5760
Emergency Management	General Counsel	505-827-5713
Planning/Development	Assistant Commissioner for Commercial Resources	505-827-3809
Noise Complaints	Deputy Commissioner	505-827-5866

2. Primary communication and coordination administrative positions for KAFB are:

ISSUE	CONTACT	TELEPHONE
Administration	Base Commander	505-846-7377
Emergency Management	Base Civil Engineer	505-846-7911
Engineering/Infrastructure	Base Civil Engineer	505-846-7911
Noise Complaints	Public Affairs	505-846-5991

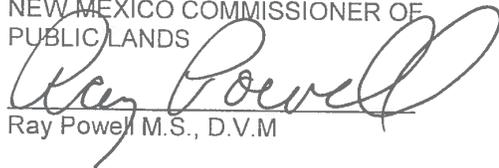
Section 3. OTHER PROVISIONS

1. **Term.** This MOU is effective as of the Effective Date and will continue until terminated. This MOU may be terminated by either of the Parties upon delivery of written notice to the other at least ninety (90) days prior to the intended date of termination.
2. **Entire MOU; Amendment.** This MOU constitutes the entire understanding between the Parties. It may not be altered, changed or amended except by an instrument in writing executed by the Parties.
3. **Authority.** This MOU does not alter, limit, or supersede the authority or responsibility of either Party on any matter within the Party's jurisdiction, or require either Party to perform beyond its authority.
4. **Liability.** Neither of the Parties will be responsible for liability incurred as a result of any other Party's acts or omissions in connection with this MOU. Any liability incurred in connection with this MOU is subject to the immunities and limitations of the applicable State and/or Federal Tort Claims Act.
5. **Choice of Law.** State Trust Lands subject to the terms and conditions of said MOU shall be governed by the laws of the State of New Mexico, including but not limited to the Enabling Act of the State of New Mexico, as contained in the Constitution of said State. All federal lands, whether public land or after acquired lands, subject to the terms and conditions of said MOU shall be governed by the statutes and regulations of the United States.

6. **Severability.** If any provision of this MOU is found by a court of competent jurisdiction to be illegal, in conflict with any federal statute or regulation, State of New Mexico statute or regulation, or otherwise unenforceable, the validity and enforceability of the remaining provisions shall not be affected so long as the purpose of the MOU is not frustrated.

Agreed to as of the Effective Date by:

NEW MEXICO COMMISSIONER OF
PUBLIC LANDS



Ray Powell M.S., D.V.M

KIRTLAND AIR FORCE BASE



9 JUL 13
JOHN C. KUBINEC, Colonel, USAF

Commander

Appendix O

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RESOLUTION
of the
EXECUTIVE BOARD of the
MID-REGION COUNCIL OF GOVERNMENTS OF NEW MEXICO
(MRCOG R-14-04)

**ACCEPTING THE IMPLEMENTATION REPORT FOR THE
KIRTLAND AIR FORCE BASE JOINT LAND USE STUDY**

WHEREAS, a Joint Land Use Study (JLUS) for Kirtland Air Force Base (KAFB) was completed and published in July 2010; and

WHEREAS, the JLUS is a collaborative effort between local communities, KAFB, and other stakeholders to encourage cooperative planning so that future community land development is compatible with the operational missions of KAFB; and

WHEREAS, the MRCOG received additional funding from the DoD Office of Economic Adjustment to begin implementing an initial phase of recommendations selected from the KAFB JLUS, hereafter referred to as the JLUS Implementation Report, and

WHEREAS, a JLUS Implementation Team has been created to represent the communities and stakeholders surrounding KAFB and to advise on the preparation and execution of the JLUS Implementation Report; and

WHEREAS, the JLUS Implementation Team has reviewed the JLUS Implementation Report; and

WHEREAS, the Executive Board of MRCOG serves as the regional planning forum to oversee the JLUS Report; and

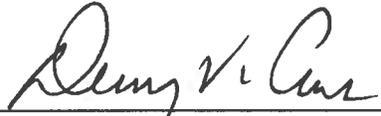
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NOW THEREFORE, BE IT RESOLVED that the MRCOG Executive Board accepts the KAFB JLUS Implementation Report as presented by MRCOG staff on this date.

PASSED, APPROVED, AND ADOPTED this 12th day of September 2013 by the Executive Board of Directors of the Mid-Region Council of Governments of New Mexico.


Philip Gasteyer, Chair
MRCOG Executive Board

ATTEST:


Dewey V. Cave, Executive Director

