

DYESS AFB

JOINT LAND USE STUDY





This study was prepared under contract with the City of Abilene with financial support from the Office of Economic Adjustment, Department of Defense. The content reflects the views of the key JLUS partners involved in the development of this study and does not necessarily reflect the views of the Office of Economic Adjustment.

DYESS AFB

JOINT LAND USE STUDY



JLUS REPORT

Prepared for:



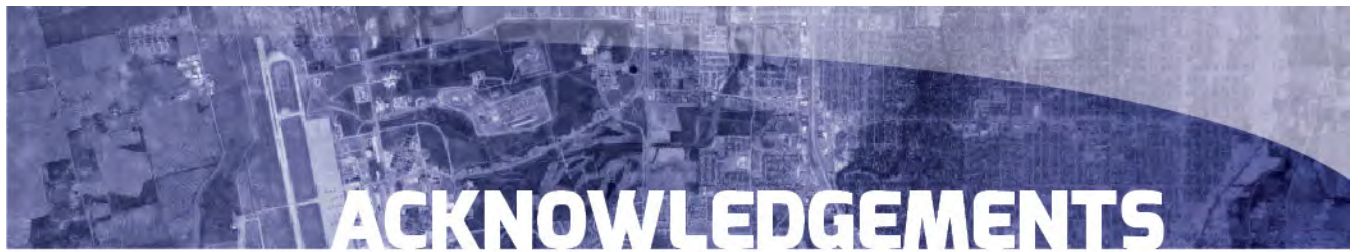
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Policy Committee

The Policy Committee (PC) served an active and important role in providing policy direction during the development of the Dyess Air Force Base Joint Land Use Study. The PC was composed of the following individuals:

City of Abilene

- **Anthony Williams**, Mayor
- **Norm Archibald**, Former Mayor

City of Tye

- **Roy Votaw**, Mayor
- **Nancy Moore**, Former Mayor

Taylor County

- **Downing Bolls**, County Judge

Property Owner

- **Tom LeVieux**, View / Caps Community

Dyess Air Force Base

- **Colonel Brandon D. Parker**, Commander, 7th Bomb Wing
- **Colonel David M. Benson**, Former Commander, 7th Bomb Wing

Technical Advisory Committee

The Technical Advisory Committee (TAC) served a key role in the development of the Dyess Air Force Base Joint Land Use Study. They provided the overall technical support, review, and guidance of the study. The TAC was composed of the following individuals:

- | | |
|---|--|
| ■ Brad Birchum , County Commissioner, Precinct 3
Taylor County | ■ Randahl Lohse , Property Owner
View / Caps Community |
| ■ Gray Bridwell , Chairman
Military Affairs Committee | ■ Gayle Potter , In Memory Of, Property Owner
View / Caps Community |
| ■ DeWayne Bush , Constable, Precinct 3
Taylor County | ■ Shane Price , Abilene City Council
City of Abilene |
| ■ Vada Childers
City of Tye | ■ Dennis Reiling , Property Owner
View / Caps Community |
| ■ Tommy Downing , AICP, Community Planner
Dyess Air Force Base | ■ Jerry Walls , Property Owner
View / Caps Community |
| ■ Shawn Hicks , Assistant Police Chief
City of Tye | ■ Dwight Williams , 7th Operations Support Squadron
Airspace Manager
Dyess Air Force Base |
| ■ Belinda Hohhertz , City Secretary
City of Tye | ■ Randy Williams , County Commissioner, Precinct 1
Taylor County |
| ■ Lieutenant Colonel Max E. Johnson ,
Deputy Commander, 7th Mission Support Group
Dyess Air Force Base | ■ Brian Yates , Former Vice President, Military Affairs
Abilene Chamber of Commerce |

Acknowledgements

City of Abilene

The City of Abilene served as the overall JLUS project management agency and the administrator of the Office of Economic Adjustment grant that helped to fund the study.



- **Don Green, A.A.E.**
Director of Transportation Services

Development Corporation of Abilene

The local grant match to support the funding of this JLUS process was graciously provided by the Development Corporation of Abilene.

JLUS Consultant / Technical Advisors

Matrix Design Group, Inc. was the project consultant hired to conduct the JLUS project through coordination with and assistance from the City of Abilene, the PC, the TAC, the public, and other stakeholders.



- **Celeste Werner, AICP**
Project Manager
- **Mike Hrapla**
Deputy Project Manager
- **Bren Cox, AICP**
Lead Planner

Special Appreciation

The City of Abilene wishes to recognize and thank all the residents, property owners, community leaders, and other stakeholders for their participation in the workshops and public meetings.



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A

ABI	Abilene Regional Airport
ACC	Air Combat Command
AFB	Air Force Base
AFI	Air Force Instruction
AG	Airlift Group
AGL	Above Ground Level
AICUZ	Air Installation Compatible Use Zone
AOA	Air Operations Area
APZ	Accident Potential Zone
AQ	Air Quality
ASR-	Airport Surveillance Radar
AT	Anti-Terrorism / Force Protection
ATC	Air Traffic Control
AW	Airlift Wing

B

BAM	Bird Avoidance Model
BASH	Bird / Wildlife Aircraft Strike Hazard
BIO	Biological Resources
BW	Bomb Wing

C

CFR	Code of Federal Regulations
COM	Communication / Coordination
CR	Cultural Resources
CZ	Clear Zone

D

dB	Decibel
DNL	Day-Night Average Sound Level
DOD	Department of Defense
DSS	Dust / Smoke / Steam

E

EAE	Established Airport Elevation
ED	Energy Development
ETJ	Extraterritorial Jurisdiction

F

FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FM	Farm to Market Road
FSC	Frequency Spectrum Capacity
FSI	Frequency Spectrum Impedance / Interference
FY	Fiscal Year

G

GIS	Geographic Information System
-----	-------------------------------

H

HA	Housing Availability
HUD	Housing and Urban Development

I

I-	Interstate
ICEMAP	Installation Complex Encroachment Management Action Plan
IE	Infrastructure Extensions

J, K

JLUS	Joint Land Use Study
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L

LAS	Land / Air / Sea Space Competition
LEG	Legislative Initiatives
LG	Light and Glare
LU	Land Use
LZ	Landing Zone

M

MACA	Mid-Air Collision Avoidance
MAR	Marine Environments
MOA	Memorandum of Agreement
MPO	Metropolitan Planning Organization
MW	Megawatts

N

NAAQS	National Ambient Air Quality Standards
NACo	National Association of Counties
NGO	Non-Governmental Organizations
NLR	Noise Level Reductions
NOAA	National Oceanic and Atmospheric Administration
NOI	Noise
NREL	National Renewable Energy Laboratory

O

OEA	Office of Economic Adjustment
OG	Operations Group

P

PC	Policy Committee
POA	Public Affairs Office
PT	Public Trespassing
PUD	Planned Unit Development
PV	Photo Voltaic

Q, R

RC	Roadway Capacity
RCS	Recovery Credit System
REPI	Readiness and Environmental Protection Integration
RF	Radio Frequency

S

SA	Safety
SAC	Strategic Air Command
SB	Senate Bill
SIP	State Implementation Plans
SNR	Scarce Natural Resources

T

TAC	Technical Advisory Committee
TPWD	Texas Parks and Wildlife Department
TREC	Texas Real Estate Commission

U

UAS	Unmanned Aerial System
USAHAS	US Avian Hazard Advisory System
USFWS	US Fish and Wildlife Service

V

V	Vibration
VFR	Visual Flight Rules
VO	Vertical Obstructions

W, X, Y, Z

WQQ	Water Quality / Quantity
-----	--------------------------



Military installations are critical to local economies, generating thousands of jobs and millions of dollars in economic activity and tax revenue annually. In the past, incompatible / not recommended development has been a factor in the loss of training operations and restructuring of mission-critical components at installations across the country. To protect the missions of military installations and the health of the local economies that rely on them, encroachment issues and the possibility of future issues must be addressed through collaboration and joint planning between installations, local jurisdictions, state agencies, and other stakeholders. This Joint Land Use Study (JLUS) attempts to mitigate current and future compatibility issues and strengthen coordination between the local communities and Dyess Air Force Base (AFB).

There are several jurisdictions and communities around Dyess AFB that participated in this JLUS effort: Taylor County, the cities of Abilene and Tye, and property owners from the View / Caps Community. An organized communication effort between these communities, Dyess AFB, the public, and other stakeholder entities that own or manage land or resources in the region is needed to ensure that future growth around Dyess AFB is coordinated and compatible / recommended with military operations and training activities to the fullest extent possible while not adversely (or negatively) impacting land use or values in the affected area.

What Is a Joint Land Use Study?

A JLUS is a planning tool developed through the collaborative efforts of a comprehensive set of stakeholders in a defined study area in order to identify compatible / recommended land use guidelines within, and adjacent to, active military installations. These stakeholders include local jurisdictions, state, and federal officials, agencies and organizations, property owners, business organizations, local tribal governments, non-governmental organizations, and the military. The public also played a vital role in the development and review of the JLUS.

The intent of the JLUS is to establish and encourage a working relationship among military installations and stakeholders in the area to work as a team to prevent and / or reduce encroachment issues associated with current and future military missions and neighboring community growth. To do this, a JLUS process

culminates in an agreed upon set of recommended strategies that can be implemented by identified stakeholders to promote compatible / recommended land uses and relationships between the military and neighboring communities for the present and future.

This JLUS effort is funded through a grant from the Department of Defense (DOD), Office of Economic Adjustment (OEA). As the administrator of the grant, the City of Abilene supplied a 10 percent match, through the Development Corporation of Abilene, to the OEA funding and provided staff to assist in the administration of the JLUS. While OEA provided the grant funding, the content of the JLUS is produced by and for the local stakeholders. The project management entity for the Dyess AFB JLUS is the City of Abilene.

JLUS Goal

The goal of the Dyess AFB JLUS is to protect the viability of current and future military operations, while simultaneously guiding community growth, sustaining the environmental and economic health of the region, and protecting public health, safety, and welfare of the community around Dyess AFB as much as possible.

The Dyess AFB JLUS is a proactive approach to encourage increased communication and foster relationships among all JLUS stakeholders and partners.

JLUS Objectives

To achieve this goal, three JLUS objectives were identified.

- **Understanding.** Convene community and military representatives to identify, confirm, and understand compatibility issues in an open forum, taking into consideration both community and military perspectives and needs. This includes public awareness, education, and input organized in a cohesive outreach program.
- **Collaboration.** Encourage cooperative land use and resource planning among the military and surrounding communities so that future community growth and development are compatible / recommended with the training and operational missions at Dyess AFB, while seeking ways to reduce operational impacts on adjacent land within the study area.
- **Actions.** Provide a set of mutually supported tools, activities, and procedures from which local jurisdictions, agencies, Dyess AFB, and other stakeholders can select, prepare, and approve / adopt and use to implement appropriate recommendations developed during the JLUS process. The actions include both operational measures to mitigate installation impacts on

surrounding communities and local government and agency approaches to reduce community impacts on military operations. These tools will help decision makers resolve potential compatibility issues and prioritize projects within the annual budgeting process.

Why Prepare a Joint Land Use Study?

Collaboration and joint planning among military installations, local communities, agencies, and other stakeholders should occur to protect the long-term viability of existing and future military missions. Working together also enhances the health of economies and industries of the communities before incompatible / not recommended uses become an issue. Recognizing the close relationship that should exist between installations and adjacent communities, the OEA implemented the JLUS program in an effort to mitigate existing and future conflicts and enhance communication and coordination among all affected stakeholders. This program aims to preserve the economic viability and quality of life within the JLUS study area while protecting current and future operations and missions at DOD installations.

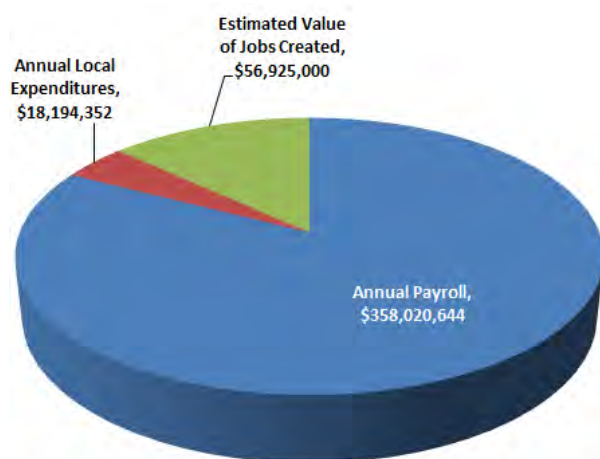
Regional Economic and Local Importance

Dyess AFB is located in Taylor County in west-central Texas, approximately seven miles southwest of downtown Abilene and just south of the City of Tye. The unincorporated communities of Caps and View are just south and southwest of the base. Dyess AFB is an important economic engine in the region, contributing more than \$400 million in economic benefit to local communities in fiscal year (FY) 2014. Dyess AFB supported 10,255 people in FY 2014, including 5,637 military personnel, 661 civilians, and 5,344 military dependents. Additionally, 3,605 military retirees reside within 50 miles of Dyess AFB. Figure 1 illustrates the total economic impact separated into typical categories.

Dyess AFB updates its Economic Impact Statement on a regular basis. The most recent Economic Impact Statement at the time this JLUS was written can be found online at the following website:

http://www.dyess.af.mil/Portals/145/Docs/2016%20EIA_Trifold.pdf.

Figure 1. Dyess AFB Economic Impact to Local Abilene Area



Source: Dyess Air Force Base Economic Impact Analysis, 2014

Military Strategic Importance

Aside from being a significant economic generator for the region, Dyess AFB is a strategic asset for the nation's defense. The host unit at Dyess AFB is the 7th Bomb Wing. Additionally, the base is home to many important associate units, including The 317th Airlift Wing and Air Force Office of Special Investigations Detachment 222. It is also home to the Air Combat Command Training Support Squadron; 29th Training Systems Squadron, Detachment 4; 77th Weapons Squadron; 337th Test and Evaluation Squadron; 436th Training Squadron; and 489th Bomb Group. The 7th Bomb Wing's mission is to provide overwhelming long-range strike within hours anywhere in the world. It is also charged with producing combat-ready aircrews in the Air Force's only B-1B formal training unit.

Local Communities Working Together

Dyess AFB contributes to the local community in more ways than its economic benefit. The base interacts with the community through actions both related to and independent of the military. Dyess AFB participates in a variety of community events and activities throughout the year, including base tours, special events, parades, and fire department and police support to local jurisdictions. Personnel from Dyess AFB not only live in the surrounding community, but also engage with the community through volunteering. In return, the local community participates in various events throughout the year to show support and appreciation for Dyess AFB and its personnel.

Activities that Dyess AFB and the local community engage in to enhance their cooperative partnership as neighbors and partners include memorandums of agreement for shared emergency services assets, Big Country Airfest Open House Airshow, the Air Force Community Partnership Program, the Annual Armed Forces Barbeque hosted by the City of Abilene, donations from Abilene Military Affairs Committee and the community of Abilene, and base tours for the general public.

JLUS Partners

As highlighted in the goal and objectives stated previously, the JLUS process is designed to create a locally relevant study that builds consensus and obtains support from the various stakeholders involved. To achieve the JLUS goal and objectives, the JLUS process included a stakeholder and public outreach program that provided a variety of opportunities for interested parties to contribute to its development.

Stakeholders

An early step in any planning process is the identification of stakeholders. Informing and involving them early in the project is instrumental in the identification of compatibility issues to address and resolve through the development of integrated strategies. Stakeholders include individuals, groups, organizations, and governmental entities interested in, affected by, or affecting the outcome of the JLUS project. Stakeholders identified for the Dyess AFB JLUS included, but were not limited to:

- Local jurisdictions (Taylor County, City of Abilene, and City of Tye)
- DOD officials and Dyess AFB personnel
- Local, regional, state, and federal planning, regulatory, and resource management agencies
- The public (including property owners, residents, and farmers)
- Other special interest groups

Policy Committee and Technical Advisory Committee

The development of the Dyess AFB JLUS was guided by two committees, composed of representatives from Taylor County, the cities of Abilene and Tye, Property Owners, the Abilene Chamber of Commerce, and Dyess AFB. The two committees were the Policy Committee (PC) and the Technical Advisory Committee (TAC).

JLUS Policy Committee. The PC consisted of elected officials and decision makers from participating jurisdictions, military installation leadership, and representatives from other interested and affected agencies and stakeholders, including Property Owners from the rural areas south and west of Dyess AFB. The PC was responsible for guiding the direction of the JLUS, preparing and approving the study design, approving policy recommendations, and approving the draft and final JLUS documents.

JLUS Technical Advisory Committee. The TAC was responsible for identifying and studying technical issues. Membership included representatives from local jurisdictions, agencies, Property Owners from the rural areas south and west of Dyess AFB, and Dyess AFB with technical expertise in one or more of the compatibility factors discussed in Chapter 5, Compatibility Assessment. The TAC identified and addressed technical issues, provided feedback on report development, and assisted in the development and evaluation of implementation strategies and tools.

Public Participation

In addition to the PC and TAC meetings and two pre-JLUS public meetings, three public workshops were held throughout the development of the JLUS. These workshops provided an opportunity for the exchange of information with the greater community, assisted in identifying the issues to be addressed in the JLUS, and gave the public a forum to discuss comments and concerns. Each workshop included a traditional presentation and a facilitated exercise that allowed a “hands on”, interactive opportunity for the public to participate in the development of the plan.

Public Outreach Materials

Various public outreach activities were conducted throughout the JLUS process to keep the public engaged in the process and get their input on any issues or concerns that should be addressed in the JLUS. Along with the public workshops that were held, informational materials (fact sheets and brochures) were developed and handed out at the workshops. A project website was also maintained through the duration of the project.

JLUS Overview Fact Sheet

At the beginning of the JLUS project, a JLUS Overview Fact Sheet was developed that describes the JLUS program, objectives, methods for the public to provide input into the process, an overview of the 24 compatibility factors that were analyzed throughout the project, and the Dyess AFB JLUS Study Area. This Fact Sheet was made available at the public workshops and posted on the project website for download.

Strategy Tools Brochure

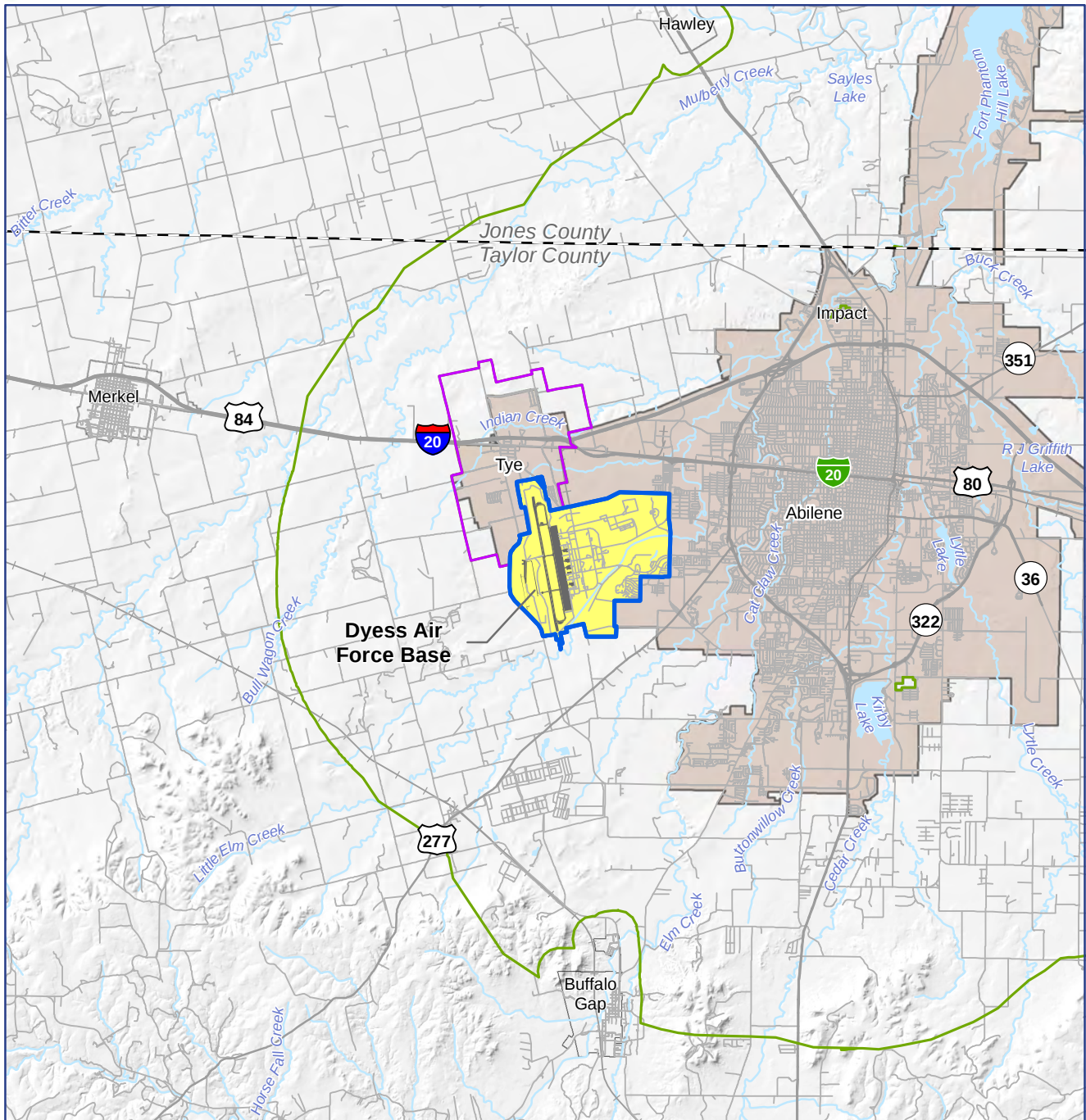
The Strategy Tools Brochure was prepared for the second public workshop. JLUS strategies constitute a variety of actions that local governments, military installations, agencies, and other stakeholders can take to promote compatible / recommended land use planning. This brochure provides an overview of the strategy types that could be applied to address compatibility issues around Dyess AFB.

Website

A project website was developed and maintained to provide stakeholders, the public, and media representatives with access to project information. This website was maintained for the entire duration of the project to ensure information was easily accessible. Information on the website included project points of contact, schedules, a link to join the list to receive email updates, documents, maps, public meeting information, and a link to submit comments. The project website was www.dyessjlus.com.

JLUS Study Area

The Dyess AFB JLUS Study Area is designed to address all lands near Dyess AFB that may impact current or future military operations or be impacted by operations. Located within Taylor County, the surrounding communities' land uses include a variety of residential, commercial, industrial, and agricultural uses. The primary characteristics evaluated in determining the JLUS Study Area were general compatibility factors associated with military mission readiness and land uses that may impact or be impacted by military operations. Figure 2 illustrates the Study Area.



Legend

- | | | |
|---------------------------------------|------------|-------------------|
| Dyess Air Force Base | Interstate | Water Body |
| County | Highway | Stream / River |
| Community Covered by JLUS | Local Road | Runway / Airfield |
| Tye Extraterritorial Jurisdiction | Railroad | |
| Abilene Extraterritorial Jurisdiction | | |

Source: Dyess AFB 2013 AICUZ.



0 1 2 Miles

Figure 2
JLUS Study Area

COMMUNITY PROFILES 2

Capturing and describing certain characteristics of the communities in the JLUS Study Area provides a baseline context from which informed decisions can be made when developing compatibility strategies. The goal is to provide information that enables stakeholders to understand population and development trends that have the potential to affect or be affected by the future of Dyess AFB and its missions. This information is intended to be coupled with other factors to help decision makers develop consistent, informed planning policies about future development and economic growth of the communities they represent before compatibility issues arise. This section is also intended to advise the military about the growth occurring “outside the fence” when considering future missions and operations at Dyess AFB.

An analysis of the population and economic trends in the JLUS jurisdictions was conducted to gather baseline information on potential areas of conflict or concern between military operations and civilian uses. The following section provides a profile of the Study Area’s population growth and economic baseline. This information assists in setting the regional context and growth potential for the JLUS Study Area.

Population

Population numbers are based on data provided by the US Census and show the growth or decline in people in a geographical area. Population is a major factor for the economy of the Study Area and ultimately supports the employment and housing opportunities. The following information provides a comparison of the changes in population for the Dyess AFB JLUS Communities from 2010 to 2015.

The population figures represent the permanent population in the Study Area, including full-time resident university students, but do not consider the temporary population surges associated with the tourism industry and migration from seasonal employment. Table 1 shows the 2010 census totals, 2015 census estimates, and percent change in populations of jurisdictions within the JLUS Study Area.

Table 1. JLUS Study Area Population Trends, 2010-2015

Jurisdiction	2010	2015 (Estimate)	Percent Change
Texas	25,145,561	27,469,114	9.2%
Taylor County	131,506	136,051	3.5%
City of Abilene	117,063	121,721	4.0%
City of Tye	1,242	1,260	1.4%

Source: US Census Bureau, 2010; US Census Bureau Vintage 2015 Population Estimates

Compared to the Texas population growth, the Study Area had a smaller change in population. Population growth can be an indication of available housing or job opportunities. The area’s high quality of life, low cost of living, pro-business environment, and provision of public services has helped drive population increases.

Future Population Projections

Population projections for Texas communities are prepared by the Texas Water Development Board. Table 2 shows the population projections for the JLUS communities. Taylor County and the cities of Abilene and Tye are expected to see about a 19 percent change in population from 2010 to 2050.

This rate of change is less than the state, yet there is still an expected steady increase in population for the area. These projected populations are not exact; they are estimated to help cities and counties to develop land use priorities to minimize impacts from future growth and manage new development.

Table 2. Long Range Population Forecasts, 2010-2050

Location	Population					Percent Change 2010-2050
	2010	2020	2030	2040	2050	
Texas	25,145,561	29,510,184	33,628,653	37,736,338	41,928,264	66.7%
Taylor County	131,506	140,675	147,183	152,561	156,822	19.3%
City of Abilene	117,063	125,179	131,036	135,837	139,656	19.3%
City of Tye	1,242	1,329	1,391	1,441	1,482	19.3%

Source: US Census Bureau, 2010; Texas Water Development Board
<http://www.twdb.texas.gov/waterplanning/data/projections/2017/popproj.asp>

JLUS Community Economic Trends

A contributing economic activity throughout the Study Area is centered on the agriculture and oil industries. Efforts to diversify Taylor County's economy with new sectors have brought new growth to the county. North of Dyess AFB, the City of Tye has experienced commercial growth along Interstate 20. South of Dyess AFB, the Petrosmith facility has expanded operations and provides some economic stimulus. A cattle feedlot southwest of Dyess AFB in the View / Caps area has moved out, which has generated some interest in new development now that the odors associated with the feedlot are no longer an issue. Outside of these areas, there has been little growth in the unincorporated county around the base.

Taylor County

In the unincorporated areas of Taylor County, much of the economy is still rooted in agriculture and ranching. Ranches in the county raise cattle, sheep, goats, and hogs. Primary crops include wheat, sorghum, hay, cotton, and oats. Taylor County is also home of the Horse Hollow Wind Energy Center that extends into neighboring Nolan County.

This major wind farm consists of 421 wind turbines spread over 47,000 acres. Manufacturing has been a large part of the economy since the 1980s.

City of Abilene

The City of Abilene supports an array of economic activities and has succeeded in attracting a large variety of manufacturing-related jobs to the area. Abilene has established itself as a regional center for high quality health care. Hendrick Health System and Abilene Regional Medical Center are both top employers in the area and are well-respected medical institutions. Dyess Air Force Base provides the City of Abilene a strong connection to Federal employment opportunities. A strong, positive relationship exists between the base and the city, which has provided additional economic stability to the area. With jobs provided by local and state government agencies, along with employment and activity created by Hardin-Simmons University, McMurry University, and Abilene Christian University, the City of Abilene finds itself in a better economic situation today than many cities in West Texas.

City of Tye

The primary industries in the City of Tye are construction, health care and social assistance, and retail trade. The city has a number of truck and automobile related businesses, including three truck service centers. Tye developed into a community where citizens enjoy living and working. Future plans for the community include improving business development to provide more employment opportunities within its boundaries. The City's location along Interstate 20 provides an attractive opportunity for new businesses to locate.

Please see the next page.



Installation Setting

Dyess AFB is located in Taylor County in north-central Texas. The installation is within the city limits of the City of Abilene and is adjacent to the City of Tye. The unincorporated communities of Caps and View are just south and southwest of the base. The base is approximately 180 miles west of the Dallas-Fort Worth metropolitan area. The primary highway transportation connection between Abilene and the Dallas-Fort Worth metropolitan area is Interstate 20.

The base is 5,366 acres and has one primary airfield with a runway (Runway 16/34) that measures 13,500 feet long by 300 feet wide. In addition, there is an asphalt-paved Landing Zone (LZ) 164/344, and a graded, rolled earth cement stabilized LZ 163/343. Each LZ is 3,500 feet long by 60 feet wide and are used exclusively for C-130 tactical training. Of the installation's 5,366 acres, 2,645 acres have some degree of development constraint, primarily associated with wetlands, floodplains, safety zones, and noise from aircraft operations.

Existing land use is generally in a tiered development pattern extending east from the aircraft parking apron. The first tier includes most of the aircraft operation functions for the installation, and there are a few administrative facilities in close proximity to the flightline. The second tier land uses include many mission support functions, consisting mostly of industrial activities. Additional industrial land uses are located on the northern end of the installation, including munitions storage. The third tier is characterized by a mix of land uses that include unaccompanied housing, temporary lodging, outdoor recreation, community service, administration, and community commercial activities. Much of this third tier of land uses forms the area of "downtown" Dyess AFB. The Medical Center, installation golf course, and privatized family housing are on the east side of the installation.

Dyess AFB Mission Operations

Mission

The 7th Bomb Wing's mission is to provide overwhelming long-range strike within hours anywhere in the world. It is also charged with producing combat-ready aircrews in the Air Force's only B-1B formal training unit. Groups assigned to the Wing include the 7th Operations Group, 7th Maintenance Group, and 7th Mission Support Group.

In addition, the 7th Bomb Wing provides host-unit support for the 317th Airlift Wing, also stationed at Dyess AFB. The mission of the 317th Airlift Wing is to transport personnel and equipment into combat zones. The 317th Airlift Wing is often involved in humanitarian disaster relief and emergency evacuations of American nationals from troubled areas around the world. The 7th Bomb Wing performs combat training with its 33 assigned Boeing B-1B Lancer Bomber aircraft. The 317th Airlift Wing uses its 27 assigned Lockheed Martin C-130J Super Hercules aircraft to perform airlift missions.

Dyess AFB Mission Footprints

Mission activities conducted on and around Dyess AFB can potentially generate impacts on surrounding communities if incompatible / not recommended land uses are developed. Examples of potential mission impacts on surrounding communities include noise and vibration from aircraft and the risk of an aircraft accident. Conversely, the military mission is susceptible to hazards and other incompatible not / recommended land uses created by certain types of civilian development or activities, such as obstructions to air space or light and glare from development affecting pilot vision. Understanding the overlapping spatial patterns of these operational areas, or "mission footprint" is essential for promoting compatible / recommended and informed land use decisions and developing the recommended strategies presented in Chapter 6 of this JLUS.

There are several elements that make up the mission footprint that extends outside the Dyess AFB boundaries. These essential elements play a key role in the installation's viability for sustaining current and future mission operations.

Dyess AFB Mission Footprint Elements

The Dyess AFB mission footprint elements are listed below and described in more detail on the following pages.

- Airfield Flight Patterns
- Imaginary Surfaces
- Drop Zones
- Airfield Accident Potential Zones
- Aircraft Noise Contours
- Airspace Control
- Part 77 Vertical Obstruction Compliance
- Bird / Wildlife Aircraft Strike Hazard (BASH) Relevancy Area

Airfield Flight Patterns (Figure 3)

Flight patterns are documented in the Air Installation Compatible Use Zone (AICUZ) Study and depict typical aircraft flight operations that are associated with the airfield. The flight patterns are developed using information gathered from air traffic controllers, pilots, and other sources and are based on several factors, including avoiding heavily populated areas as much as possible; US Air Force criteria for speed, rate of climb, and turning radius of the specific type of aircraft; minimizing noise impacts, especially at night; and coordination with the Federal Aviation Administration (FAA) to avoid conflicts with civilian aircraft. While the identified flight patterns represent typical flight operations, they may vary depending on circumstances such as weather, mission requirements, and other air traffic.

The closed patterns are isolated to areas surrounding the installation and consist of low-level altitude flights. The majority of closed pattern operations at Dyess AFB are flown on the west side of the base where the land underneath is less developed, however sometimes flights occur over western areas of the City of Abilene.

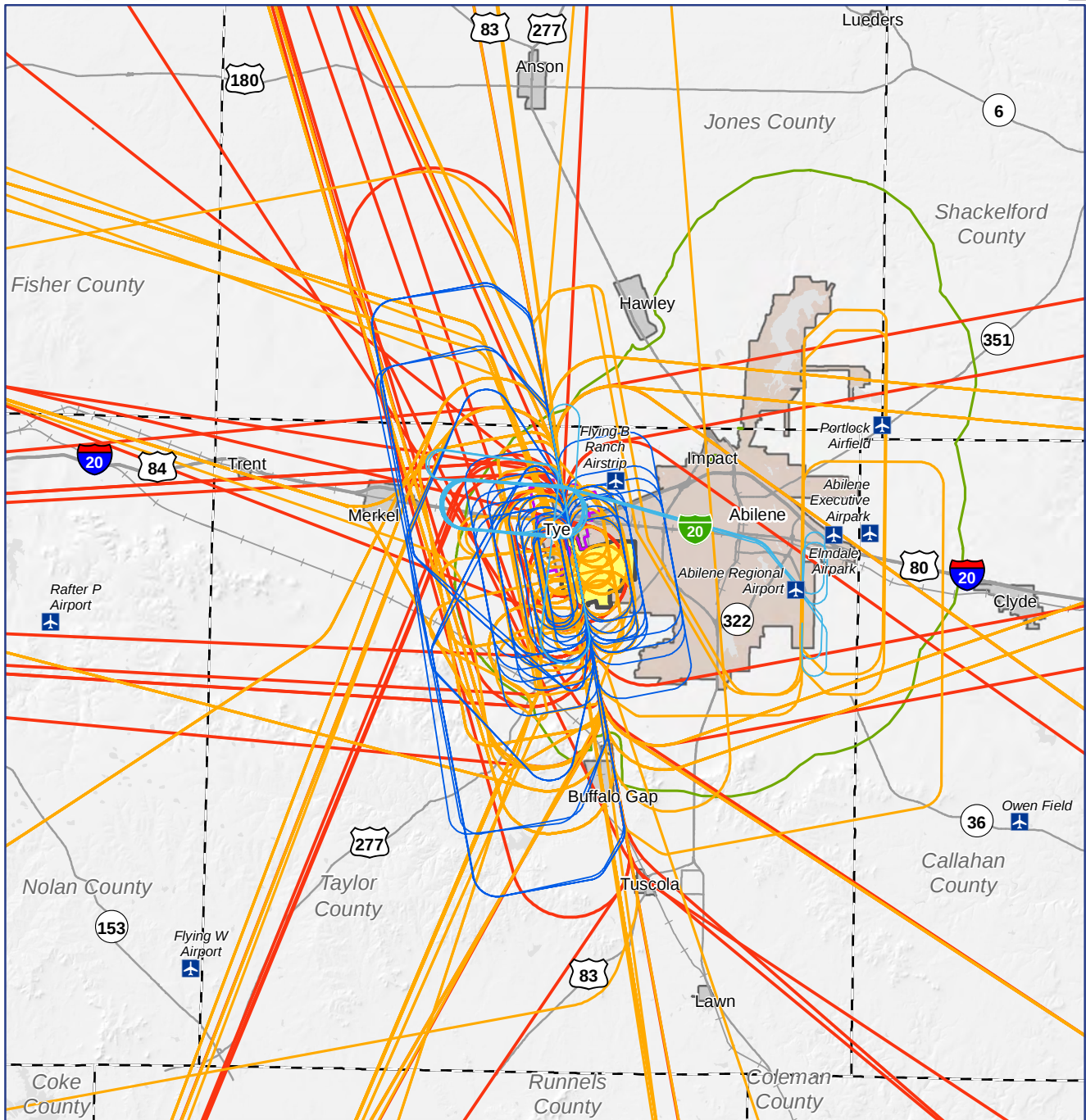
Aircraft based at Dyess AFB periodically use the Abilene Regional Airport to the east of the base to practice approaches.

Figure 3 illustrates the typical flight patterns used by Dyess AFB aircraft. Other flight paths may also be used depending on factors such as weather or mission requirements.

Imaginary Surfaces (Figure 4)

Air Force obstruction criteria in Unified Facilities Criteria 3-260-01 are based on Federal Aviation Regulations Part 77, specifying a series of imaginary height restriction surfaces surrounding an airfield. The imaginary surfaces of an active runway are used to define the required airspace that must remain free of vertical obstructions in the vicinity of aviation operations to ensure safe flight operations. Structures should not exceed the stipulated heights to protect the navigable airspace associated with the airfield, the safety of pilots, and people and the land uses on the ground. This is especially important in the approach-departure clearance surfaces. The imaginary surfaces for Dyess AFB are illustrated on Figure 4.

For a complete technical explanation of the imaginary for Dyess AFB, see Chapter 5, Compatibility Assessment (Section 5.23 Vertical Obstructions) of the Background Report.



Legend

Flight Pattern

- Departure
- Arrival
- Closed Pattern
- Interfacility
- Dyess Air Force Base
- County
- Community Covered by JLUS
- Tye Extraterritorial Jurisdiction
- Abilene Extraterritorial Jurisdiction
- Other Community

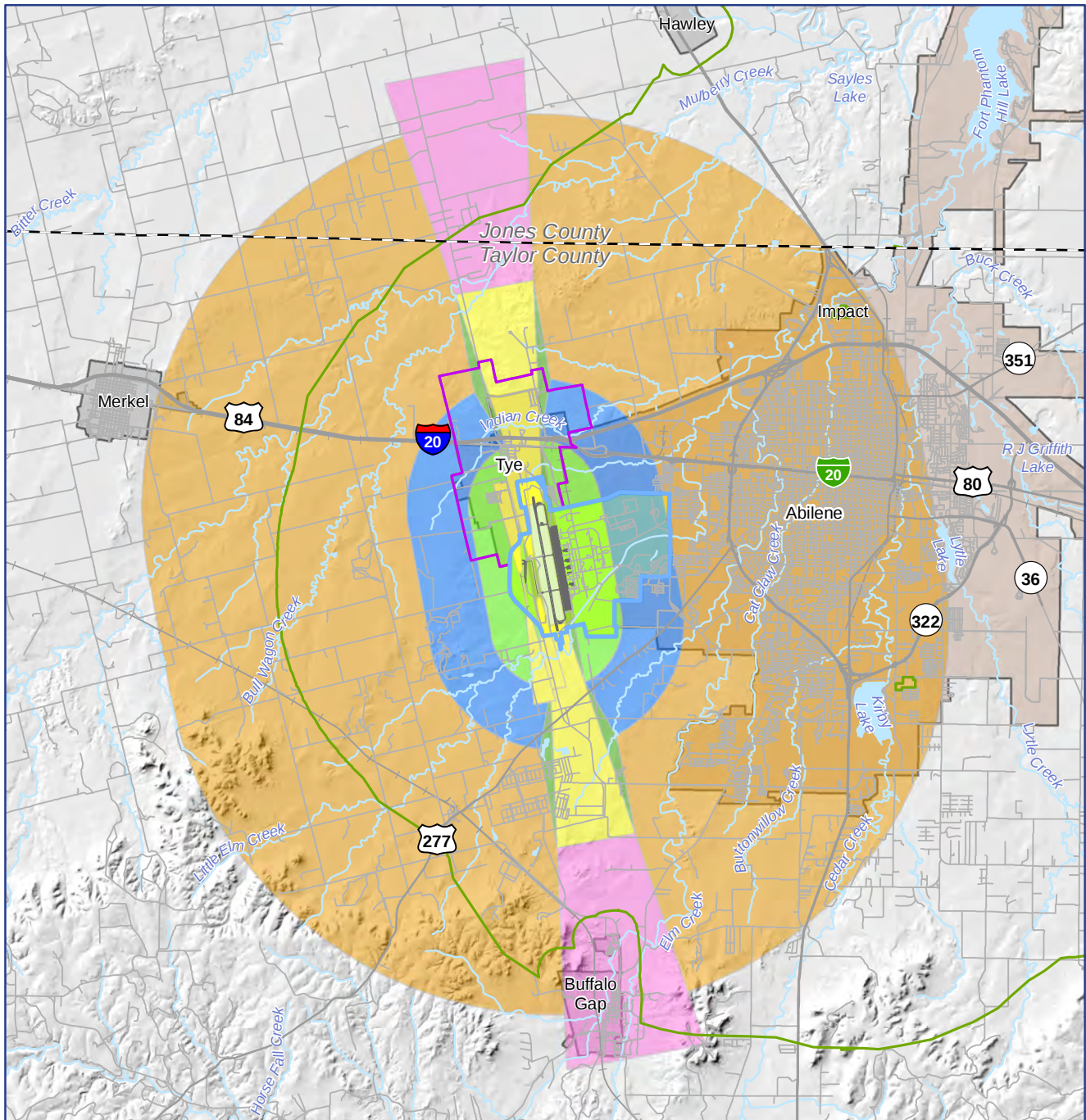
- Interstate
- Highway
- Railroad
- Water Body
- ✈ Airports



Source: Dyess AFB 2013 AICUZ.



Figure 3
Mission Footprint: Flight Patterns



Legend

Imaginary Surfaces

- Primary Surface
- Approach/Departure Clearance Surface (50:1)
- Approach/Departure Clearance Surface (Horizontal)

- Inner Horizontal Surface
- Conical Surface (20:1)
- Outer Horizontal Surface
- Transitional Surface (7:1)

- Dyess Air Force Base
- County
- Community Covered by JLUS
- Tye Extraterritorial Jurisdiction
- Abilene Extraterritorial Jurisdiction
- Other Community
- Interstate

- Highway
- Local Road
- Railroad
- Runway / Airfield
- Water Body
- Stream / River



Source: Dyess AFB 2013 AICUZ.



Figure 4

Mission Footprint: Imaginary Surfaces

Drop Zone Operations (Figure 5)

Air Force Instruction (AFI) 13-217, Drop Zone and Landing Zone Operations (USAF 2007), outlines the minimum size of a Drop Zone, marking criteria, aerial delivery methods, and parameters for aircraft conducting airdrops. A specific minimum elevation, or floor, is established for the Drop Zone approach and departure corridors. Vertical penetrations into the floor of these corridors would severely limit the viability of airlift training conducted by the C-130J squadrons. The north-to-south and south-to-north Marrion Drop Zone corridors at Dyess AFB are shown on Figure 5. The height of the Drop Zone corridors extends to 2,000 feet above the Drop Zone itself.

Airfield Accident Potential Zones (Figure 6)

Per Department of Defense (DOD) instruction, Accident Potential Zones (APZs) are developed to assist military and community planners in developing land uses that are compatible / recommended with airfield operations, thereby protecting health and safety. Within these zones are recommended types, densities, and intensities of land uses. While the likelihood of an aircraft mishap occurring is remote, the identified APZs provide the best practical solution for fostering public safety.

There are typically three safety zones that extend from the ends of runways: Clear Zone (CZ), APZ I, and APZ II. These three zones occur on each end of Runway 16/34 and are illustrated on Figure 6.

The **CZ** begins at each end of the runway and measures 3,000 feet wide by 3,000 feet long. This is the area that has the highest potential of an aircraft incident. It is recommended that no development occur in the CZ unless it is a use that is needed for safe operations of aircraft.

The **APZ I** is an area beginning at the end of each CZ at a width of 3,000 feet and a length of 5,000 feet. This area has a lower potential for accidents and therefore has less restrictive development recommendations.

The **APZ II** is an area that begins at the end of each APZ I and is 3,000 feet wide by 7,000 feet long. Again, the accident potential in this area is further reduced, and as a result some additional development types are compatible / recommended.

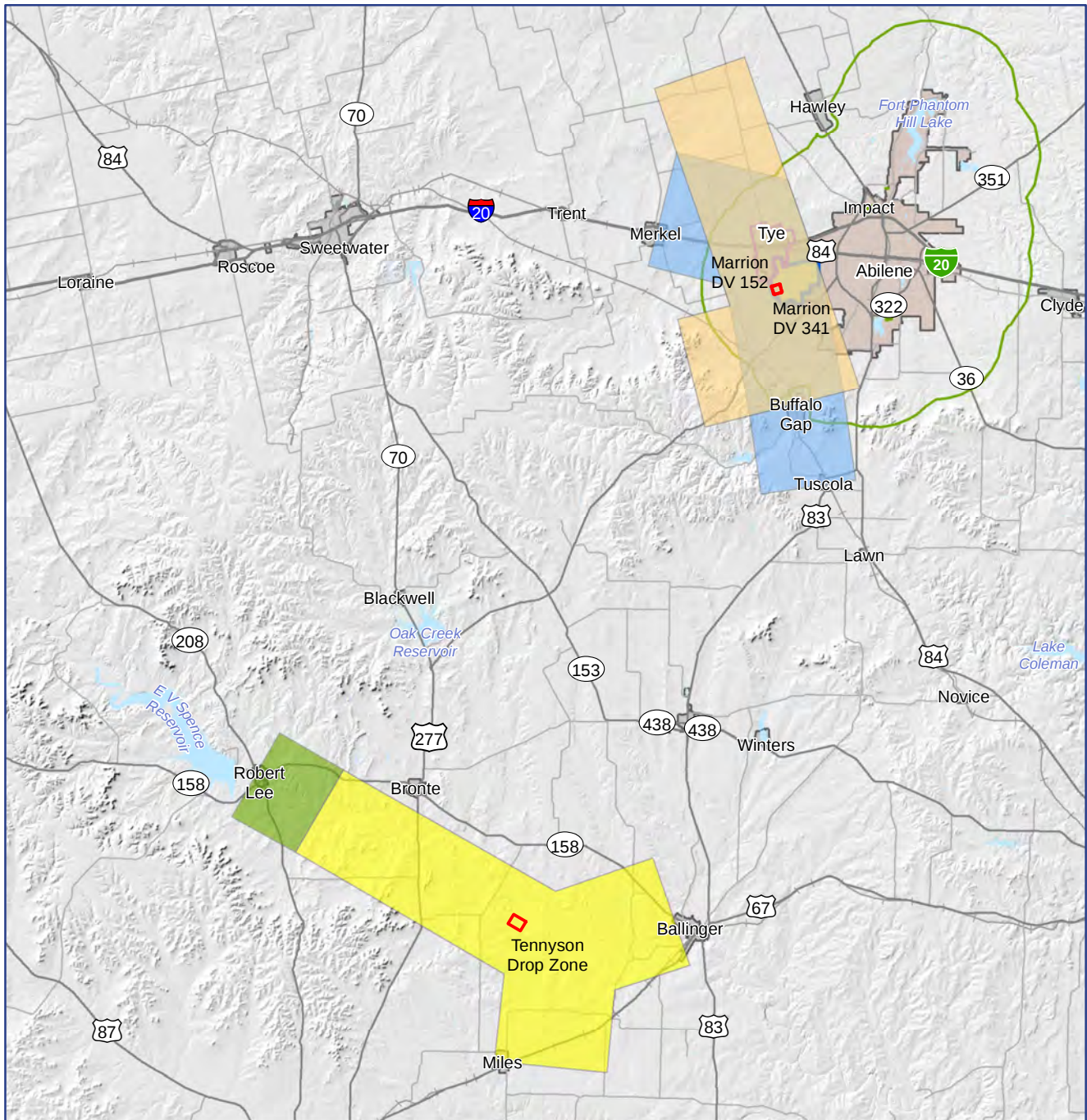
The two LZs have smaller safety zones at their ends due to their limited use. They each have only two zones: a CZ and an APZ-LZ.

The LZ CZ begins at each end of the landing zone, with an inner width extending out 135 feet to each side of the centerline, and tapering out to a width of 250 feet on each side of the centerline. The LZ CZ extends out for 500 feet along the extended assault strip centerline.

The APZ- LZ for the landing zone begins at the far end of the CZ and extends out for 250 feet on each side of the centerline for 2,500 feet along the extended landing zone centerline.

Aircraft Noise Contours (Figure 7)

Aircraft noise is produced from flight operations (overflight, take-offs, landings, touch-and-go operations) and engine maintenance run-ups. An engine run-up is a maintenance procedure performed on the airfield to test for proper engine performance. The Air Force considers how its operations impact the local community by calculating an average-weighted noise level measured as a day-night average sound level (DNL). The Air Force uses the DOD NOISEMAP program to produce noise contours indicating noise exposure levels from aircraft operations. The noise contours are produced by associating the number of aircraft operations with flight track distances, turns, altitudes, airspeeds, power settings, maintenance locations, ground run-up engine power settings and number and duration of runs by type of aircraft / engine. Acoustical engineers process the data for input into the NOISEMAP computer program and the aircraft operations being modeled are verified by operations and maintenance personnel. The contour lines developed in the model range from 65 decibel (dB) DNL to 80+ dB DNL and increase in increments of five dB. The 80+ dB DNL is the loudest contour line computed and the 65 dB DNL is the quietest.



Legend

BRONTE C-130 Drop Zone

- Medium Formations Floor Elevation: 2,600' MSL
- Large Formations Floor Elevation: 2,870' MSL

Marrion C-130 Drop Zone

- North to South Drop Zone Corridor Floor Elevation: 2,379' MSL
- South to North Drop Zone Corridor Floor Elevation: 2,479' MSL

Drop Zone

Dyess Air Force Base

Community Covered by JLUS

Tye Extraterritorial Jurisdiction

Abilene Extraterritorial Jurisdiction

Other Community

Interstate

Highway

Other Main Road

Railroad

Water Body

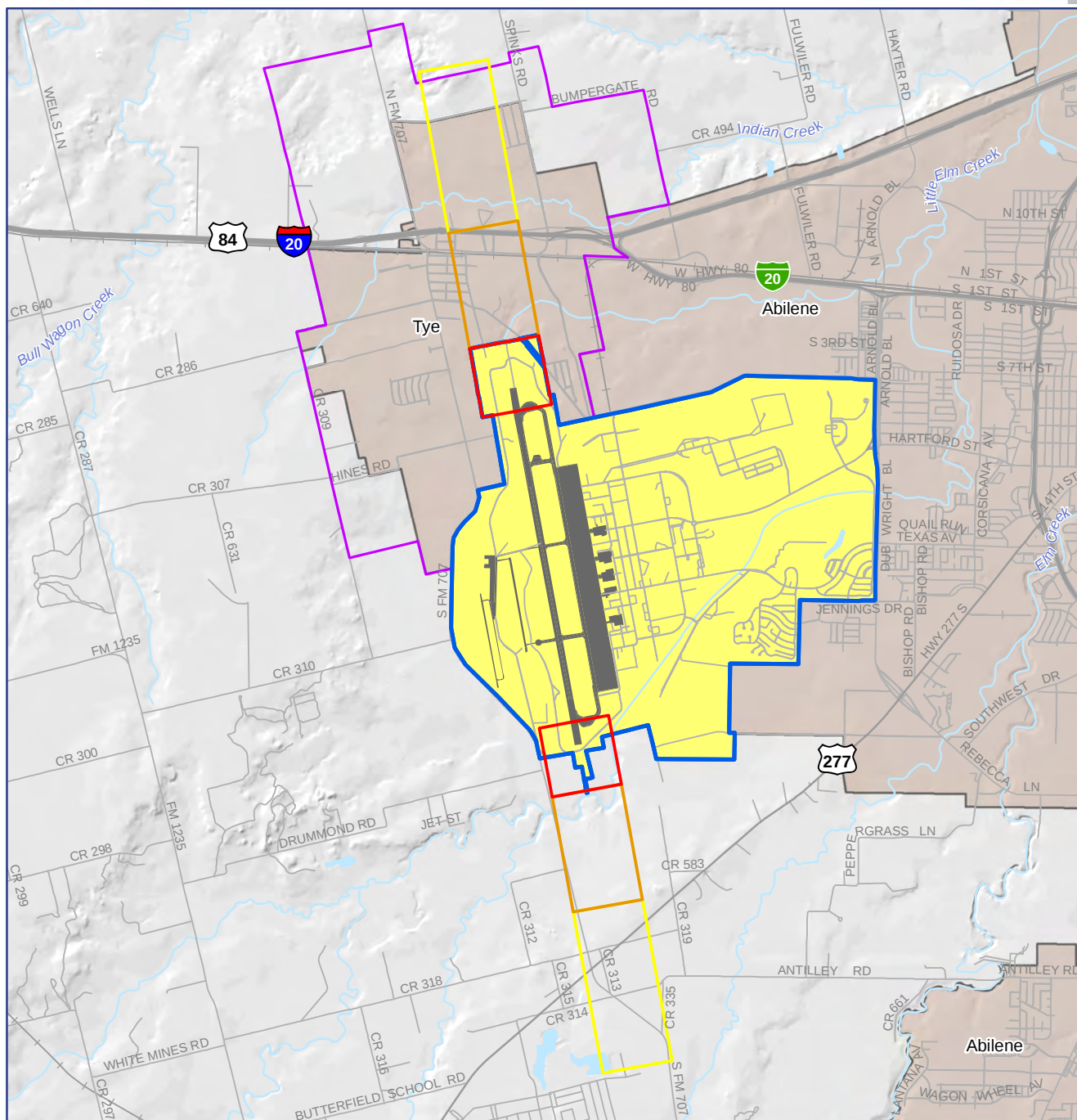


Source: Dyess AFB 2013 AICUZ.



0 10 20 Miles

Figure 5
Mission Footprint: Drop Zones



Legend

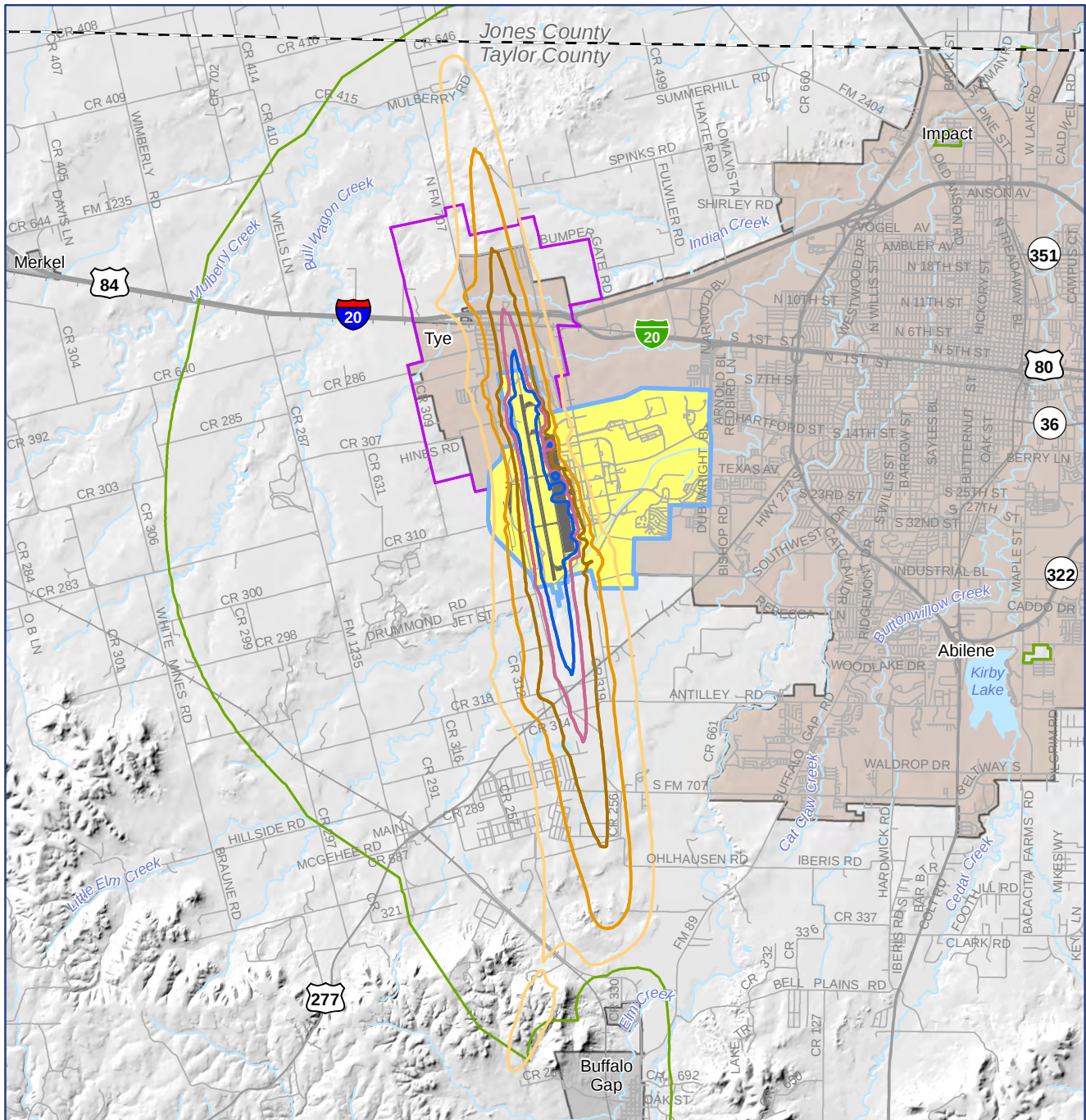
- | | | | |
|---------------------------------|--|-------------------|----------------|
| Accident Potential Zones | Dyess Air Force Base | Interstate | Water Body |
| Clear Zone | Community Covered by JLUS | Highway | Stream / River |
| APZ I | *Tye Extraterritorial Jurisdiction (ETJ) | Local Road | |
| APZ II | | Railroad | |
| | | Runway / Airfield | |

*Portions of the APZ that lie outside of the Dyess AFB Perimeter and that do not fall within the City of Tye ETJ are located within the City of Abilene's ETJ
Source: Dyess AFB 2013 AICUZ.



0 1/2 1 Miles

Figure 6
Mission Footprint: Accident Potential Zones



Legend

2013 DNL Noise Contour (dB)

- 65 DNL
- 70 DNL
- 75 DNL
- 80 DNL
- 85 DNL
- Dyess Air Force Base
- County
- Community Covered by JLUS
- Tye Extraterritorial Jurisdiction
- Abilene Extraterritorial Jurisdiction
- Other Community

- Interstate
- Highway
- Local Road
- Railroad
- Runway / Airfield

- Water Body
- Stream / River



Source: Dyess AFB 2013 AICUZ.



0 1 2 Miles

Figure 7

Mission Footprint: Noise Zones

The DNL measure has been determined to be a reliable measure of community sensitivity to aircraft noise and has become a standard metric used to map aircraft noise. Its use was recommended by the Environmental Protection Agency in 1974. After social surveys and other scientific studies, DNL was adopted by the Federal Interagency Committee on Urban Noise (FICUN) in 1980 as the most appropriate metric for predicting cumulative human effects. DNL is used by all federal agencies (Department of Defense, Federal Aviation Administration, Department of Transportation, etc.) for predicting human annoyance and other potential noise effects to humans.

Noise contours were generated in 2013 for the Dyess AFB's January 2015 AICUZ Study to reflect a change in aircraft equipment (C-130J Super Hercules) and mission operations. Aircraft operational and maintenance data was obtained to derive average daily operations by runway and type of aircraft. Data was input into the NOISEMAP program to produce DNL contours. The previous noise contours were developed in 2007 and covered a larger area than the most recent contours developed in 2013. The 2013 noise contours are illustrated on Figure 7.

Airspace Control (Figure 8)

To help air traffic controllers and pilots deal with varying traffic conditions in the sky, United States airspace has been separated into six different classes (A, B, C, D, E, and G). These different classes have different requirements for entry into the airspace, pilot qualifications, radio and transponder equipment, and Visual Flight Rules (VFR) weather minimums.

Within the JLUS Study Area, Dyess AFB and Abilene Regional Airport are surrounded by Class C airspace, a portion of which is shared. The vertical boundary is 4,000 feet above the airport elevation (the ceiling). The core surface area has a radius of five nautical miles and goes from the airport elevation to the ceiling of the Class C airspace. The upper shelf area has a radius of ten nautical miles, and extends from as low as 1,200 feet up to the ceiling of the airspace. Figure 8 shows the Class C airspace areas around Dyess AFB and Abilene Regional Airport.

Part 77 Vertical Obstruction Compliance (Figure 9)

An important outcome of the Federal Aviation Act is Federal Aviation Regulation Title 14 Part 77, commonly known as Part 77, which provides the basis for evaluation of compatible / recommended land use in terms of vertical obstructions. This regulation provides information to evaluate the potential for a vertical obstruction based on the elevation of the airfield, the height and resulting elevation of the new structure or facility, and the location of the structure or facility relative to the airfield in question.

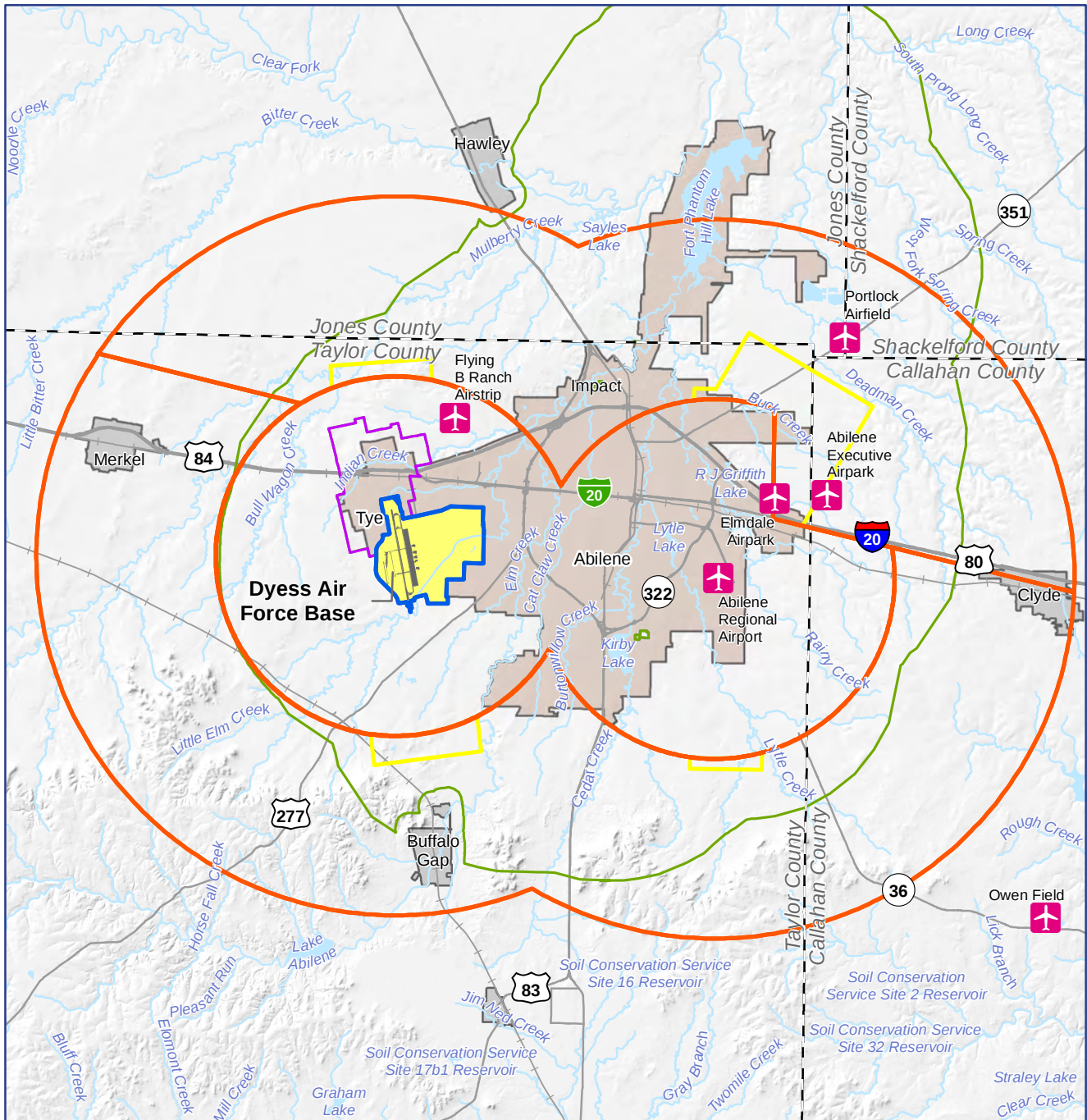
This regulation promulgates obstruction standards relative to their distance from the ends of a runway as well as their relationship to airport imaginary surfaces.

A height that is 200 feet above ground level or above the established airport elevation, whichever is higher, and within three nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length is considered a vertical obstruction. This height increases in the proportion of 100 feet for each additional nautical mile of distance from the airport up to a maximum of 499 feet.

Figure 9 illustrates the Part 77 rings around Dyess AFB. Obstruction height elevations are measured from the Dyess AFB airfield elevation, which is 1789 feet above mean sea level. Note that this is in addition to, not a replacement of, the imaginary surfaces discussed previously.

Bird / Wildlife Aircraft Strike Hazard Relevancy Area (Figure 10)

Birds and animals can present a significant hazard to military flight operations. While fatal accidents resulting from bird or wildlife strikes have been limited, impacts can be a safety concern and cause significant damage to aircraft. Bird or animal strikes in the US since 1980 have approached approximately 20,000 events that have resulted in 2 deaths, 25 aircraft destroyed, and over \$300 million in damage.



Legend

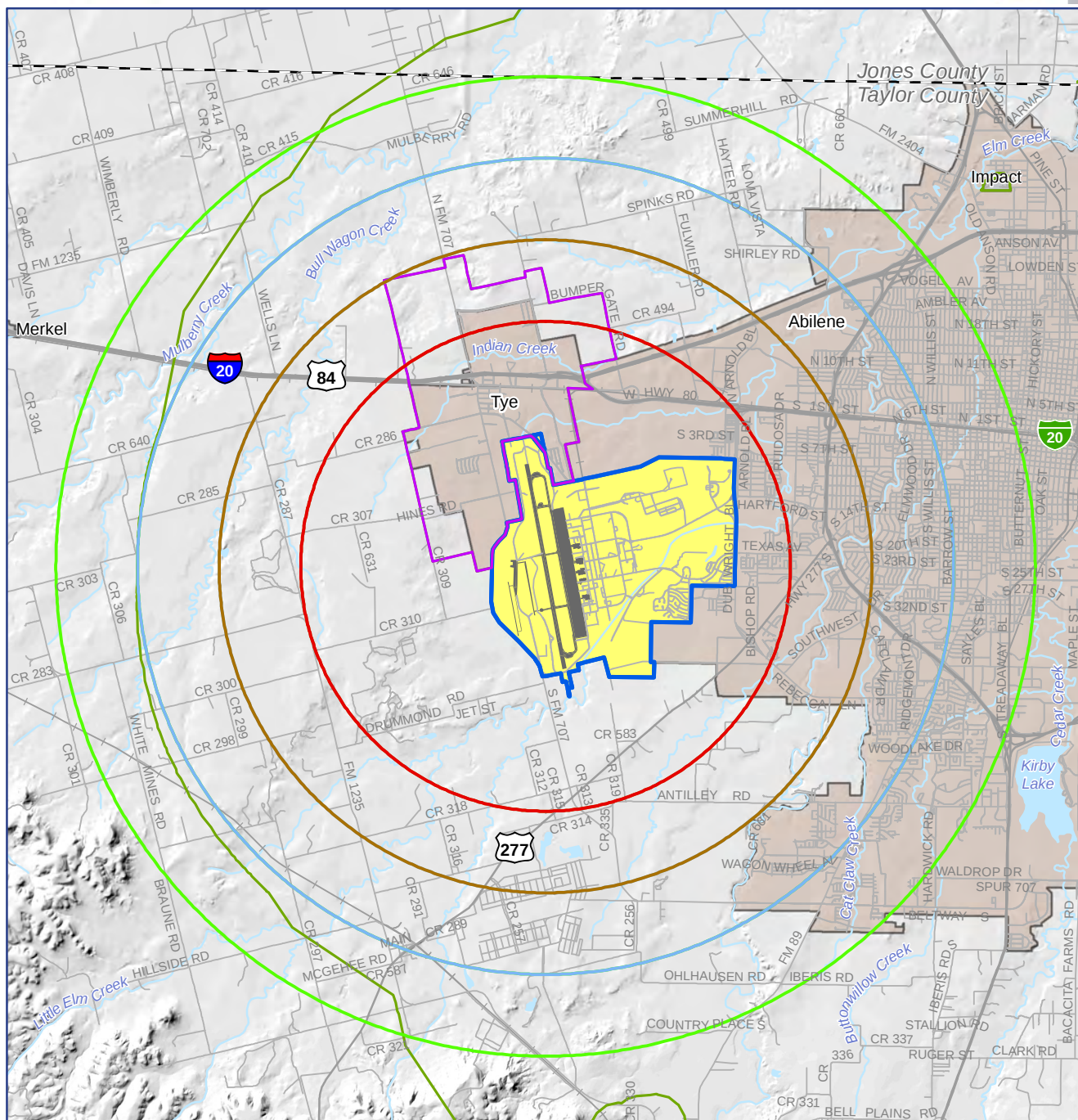
- | | | | |
|-----------------------|---------------------------------------|------------|-------------------|
| Class C Control Area | Dyess Air Force Base | Interstate | Water Body |
| Class E0 Control Area | County | Highway | Stream / River |
| Airports | Community Covered by JLUS | Railroad | Runway / Airfield |
| | Tye Extraterritorial Jurisdiction | | |
| | Abilene Extraterritorial Jurisdiction | | |
| | Other Community | | |

Source: Dyess AFB 2013 AICUZ.



0 2 4 Miles

Figure 8
Mission Footprint: Airspace Control



Legend

- | | | | |
|--|---|-------------------|----------------|
| Up to 200' @ 3NM | Dyess Air Force Base | Interstate | Water Body |
| Up to 300' @ 4NM | County | Highway | Stream / River |
| Up to 400' @ 5NM | Community Covered by JLUS | Local Road | |
| Up to 500' @ 6NM | Tye Extraterritorial Jurisdiction | Railroad | |
| | Abilene Extraterritorial Jurisdiction | Runway / Airfield | |
| | Other Community | | |

Source: Matrix Design Group, 2016.

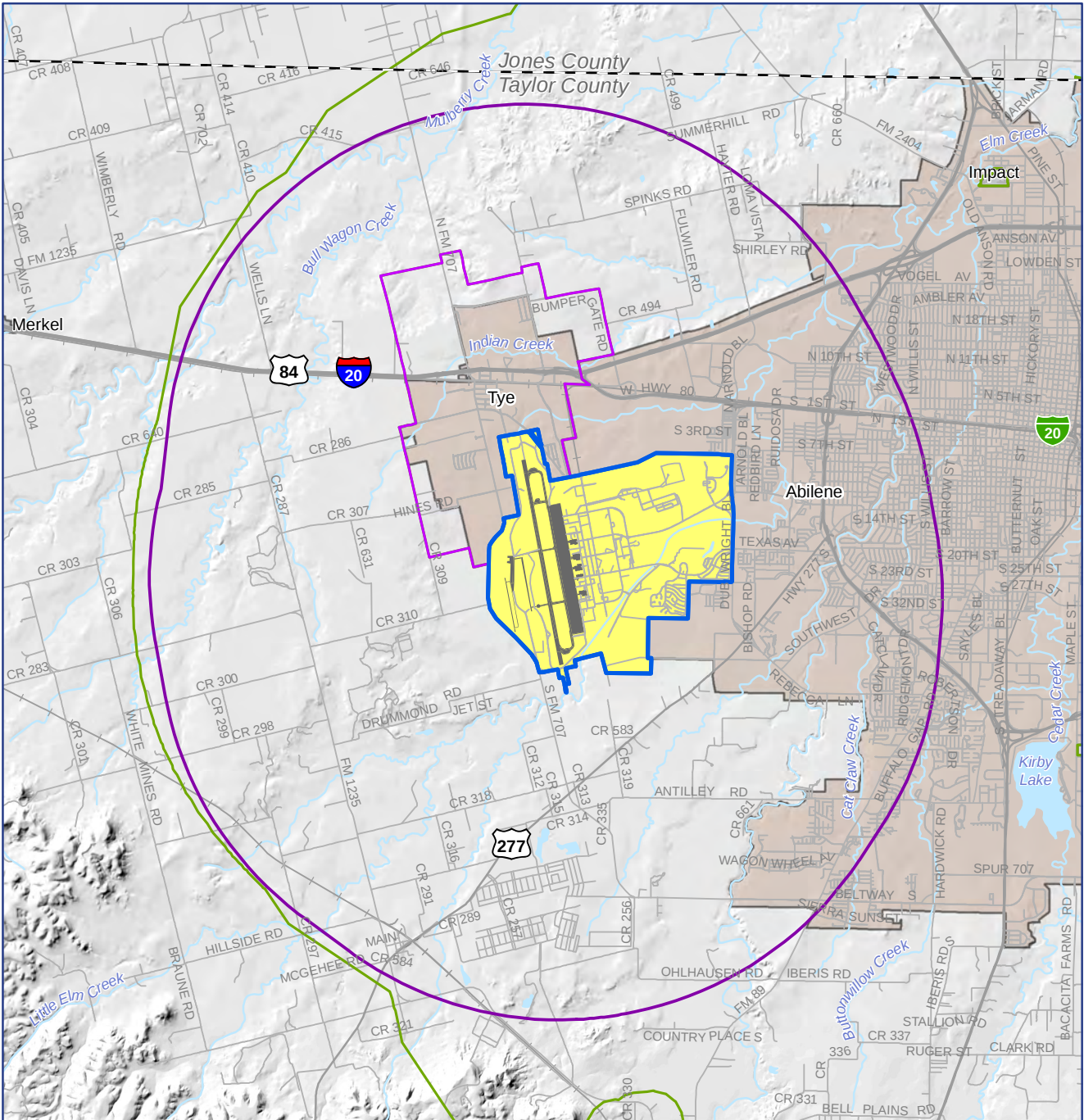
Note: Obstruction height elevations are measured from the Dyess AFB airfield elevation, which is 1789 feet above mean sea level.



0 1 2 Miles

Figure 9

Mission Footprint: Part 77



- Legend**
- 5-mile BASH Relevancy Area
 - Dyess Air Force Base
 - County
 - Community Covered by JLUS
 - Tye Extraterritorial Jurisdiction
 - Abilene Extraterritorial Jurisdiction
 - Other Community
 - Interstate
 - Highway
 - Local Road
 - Railroad
 - Runway / Airfield
 - Water Body
 - Stream / River

Source: Matrix Design Group, 2016.



0 1 2 Miles

Figure 10
Mission Footprint: BASH Relevancy Area

Certain types of land uses attract birds and wildlife, such as open water areas, standing water, and other natural areas. Although birds exist in the Study Area that could present an aircraft strike hazard, there are no known surface water bodies at Dyess AFB that are contributing to Bird / Wildlife Aircraft Strike Hazard (BASH) problems. Relative to compatible / recommended land use, the control of bird attractants near the airfield is important.

A BASH program is in place at Dyess AFB to reduce the impact of birds on aircraft operations. Figure 10 shows a five-mile radius around the Dyess AFB airport operations area. Based on FAA statistical analysis, this is the primary area of concern for BASH incidents to occur, and the primary focus of compatible / recommended land use planning for this issue.

Please see the next page.



COMPATIBILITY TOOLS 4

There are many existing tools that can be used to encourage, promote, and manage compatible / recommended land use between military installations and their neighboring communities. This chapter provides an overview of compatibility tools currently used or applied in evaluating and addressing compatibility issues in the Dyess Air Force Base (AFB) Joint Land Use Study (JLUS) area. Relative to compatible / recommended land use planning, there are a number of existing plans and programs which are either designed to address compatible / recommended land use directly or which indirectly address compatibility issues through the topics they cover. This summary provides an overview of key plans and programs that impact compatible / recommended land use planning organized by level of government.

This review is meant to provide an overview of applicable planning tools and determine how each may apply to compatibility issues identified by the Dyess AFB JLUS process, as presented under the compatibility factors discussed in Chapter 5, Compatibility Assessment of the Background Report. The tools listed in this section are not exhaustive, but are meant to provide a general overview of the primary tools currently utilized or available in the JLUS Study Area. For more information on these and additional tools, please see Chapter 4, Compatibility Tools of the Background Report.

Federal Programs and Policies

Federal policy, laws, and programs have evolved to impact almost every aspect of land use. This is particularly true in metropolitan areas that host major military facilities such as Dyess AFB. A broad range of federal plans, programs, and actions impact Dyess AFB both directly and indirectly. However, depending on the subject area, opportunities for vertical integration and cross jurisdictional collaboration vary widely. Federal programs and policies are carried out by the various arms of the federal government, although in some cases these tools also authorize state, county, regional or local governmental agencies to implement related policies, programs and regulations. The following federal programs and policies were evaluated to assist in determining where areas of improvement could enable better compatible / recommended land use planning at the local level.

Air Force Instruction 90-2001

Air Force Instruction 90-2001 was published in September 2014 to implement the Encroachment Management Program. The Instruction applies to all Air Force installations to address encroachment issues and prevent or reduce the impacts of encroachment. The Instruction includes an Encroachment Management Framework, which has four elements (Organize, Assess, Act, and Monitor) to address the variety of challenges. Organization requires leadership involvement, a cross-functional management structure, an issue evaluation structure, a designated Executive Director at the installation level, and a geographic scope. Assessment includes studying internal and external relationships and developing encroachment studies, such as an Installation Complex Encroachment Management Action Plan (ICEMAP). Action involves implementation of programs. Lastly, monitoring involves maintaining awareness of mission needs and encroachment issues.

Air Installation Compatible Use Zone Study Program

The Air Installation Compatible Use Zone (AICUZ) program was created by the Department of Defense (DOD) in 1973 to address noise and safety hazards associated with aviation operations. The AICUZ program provides guidelines to promote compatible / recommended land development in areas subject to operational noise and accident potential. The program was initiated to protect the public's health, safety, and welfare, as well as to protect military airfields from encroachment by incompatible / not recommended uses and structures. The AICUZ framework evaluates noise from military aircraft, and applies the concept of clear zones / accident potential zones, with corresponding development / building densities and intensities designed to encourage compatible / recommended uses between military operations and communities.

Department of Defense Conservation Partnering Initiative

In 2003, Congress amended Title 10 U.S.C. §2684a and §2692a (P.L. 107-314), the National Defense Authorization Act, to add authority to the DOD to partner with other federal agencies, states, local governments, and conservation-based Non-Governmental Organizations (NGOs) to set aside lands near military bases for conservation purposes and to prevent incompatible / not recommended development from encroaching on, and interfering with, military missions.

This law provides an additional tool to support smart planning, conservation, and environmental stewardship on and off military installations. The purpose of the program is to acquire real property interests, such as conservation easements or development rights to address current and potential encroachment or compatibility threats to an installation's mission. There are several properties in proximity to Dyess AFB that are currently for sale that may be eligible for this or other easement programs.

DOD Readiness and Environmental Protection Integration

To implement the authority provided by the Department of Defense Conservation Partnering Initiative, the DOD established the Readiness and Environmental Protection Integration (REPI) Program. This initiative enables the DOD to work with state and local governments, NGOs, and willing landowners to limit encroachment and incompatible / not recommended land use.

REPI funds are used to support a variety of DOD partnerships that promote compatible / recommended land use. By relieving encroachment pressures, the military is able to test and train in a more effective and efficient manner. By preserving the land surrounding military installations, habitats for plant and animal species are conserved and protected.

It is important for Dyess AFB to ensure that military activities are not encroached upon by incompatible / not recommended land uses. The REPI gives local agencies an opportunity to partner with the military and other local agencies. This will allow for buffers around the base to be established to help further protect its mission.

DOD Energy Siting Clearinghouse

Section 358 of the 2011 National Defense Authorization Act authorized the study of the effects of new construction and obstructions on military installations and operations. The Energy Siting Clearinghouse serves to coordinate the DOD review of existing applications for energy projects. Several key elements of Section 358 include designation of a senior official and lead organization to conduct the review of energy project applications, a specific timeframe for completion of a hazard assessment associated with an application (30 days), specific criteria for DOD objections to projects and a requirement to provide an annual status report to Congress. This legislation facilitates procedural certainty and a predictable process that promotes compatibility between energy independence and military capability.

DOD Operational Noise Manual

The Operational Noise Manual was prepared by the US Army Center for Health Promotion and Preventive Medicine and released in November 2005. It provides a practical reference for military and civilian personnel with duties and responsibilities in operational noise management so that they can work together to be good neighbors and reduce noise issues. The manual assists personnel in understanding and implementing current DOD environmental policy and guidance. The majority of the manual is devoted to the following subjects: Characteristics of Sound; Effects of Noise; Military Noise Sources; Noise Monitoring; Reduction of Noise Conflicts; and more.

Department of Housing and Urban Development Noise Regulation

The United States Department of Housing and Urban Development (HUD) has instituted policies through Section 24 Code of Federal Regulations (CFR) Part 51 that are designed to promote the creation of controls and standards for community noise abatement by state and local governments. The focus of these regulations is to reduce noise levels within residential developments funded by HUD.

HUD may fund residential construction within certain noise contours, provided sound attenuation is accomplished. The added construction expense of sound attenuation, however, may make siting in these noise exposure areas financially less attractive. Since the HUD policy is discretionary, variances may also be permitted, depending on regional interpretation and local conditions. HUD also has a policy (24 CFR 51D) that prohibits funding for projects in runway Clear Zones and Accident Potential Zones, unless the project is compatible / recommended with any applicable AICUZ recommendations.

Federal Aviation Act

The Federal Aviation Act was enacted in 1958 to provide methods for overseeing and regulating civilian and military use of airspace over the United States. The Act requires the Secretary of Transportation to make long-range plans that formulate policy for the orderly development and use of navigable air space.

The intent is to serve the needs of both civilian aeronautics and national defense, but does not specifically address the needs of military agencies. Military planning strives to work alongside local, state, and federal aviation law and policies but sometimes must supersede these and other levels of government due to national security interests. The Federal Aviation Administration (FAA) was created as a result of the Act and serves a variety of purposes, including the management of airspace over the US.

The 500-foot rule, promulgated by the FAA, states that every citizen of the United States has “a public right of freedom of transit in air commerce through the navigable air space of the United States.” The rule was formally announced in the 1963 Court of Claims ruling in *Aaron v. United States*, and states that flights 500 feet or more above ground level (AGL) do not represent a compensable taking because flights 500 feet AGL enjoy a right of free passage without liability to the owners below.

Another important outcome of the Act is FAA Regulation Title 14 Part 77, commonly known as Part 77, which provides the basis for evaluation of vertical obstruction compatibility. This regulation determines obstructions to air navigation based on the height of proposed structures or natural features relative to their distance from the ends of a runway. Using a distance formula from this regulation, local jurisdictions can easily assess the height restrictions near airfields. Additional information on Part 77 is located on the FAA Internet site at <http://www.faa.gov/>.

The FAA has identified certain imaginary surfaces around runways to determine how structures and facilities are evaluated and identify if they pose a vertical obstruction relative to the airspace around a runway. The levels of imaginary surfaces build upon one another and are designed to eliminate obstructions to air navigation and operations, either natural or man-made. The dimension or size of an imaginary surface depends on the runway classification.

Partners in Flight Program

The DOD has implemented a program entitled Partners in Flight that sustains and enhances the military testing, training, and safety mission through habitat-based management strategies. The program assists natural resource managers in monitoring, inventory, research, and management of birds and their habitats. As part of the Partners in Flight program, a strategic plan is created that can be incorporated into a Bird / Wildlife Aircraft Strike Hazard (BASH) plan. This program reaches beyond the boundaries of the installation to facilitate community partnerships and determine the current status of bird populations to prevent the further endangerment of birds.

Proposed Protection of Military Airfields from Wind Turbine Encroachment Acts

Two bills were proposed in late 2016 to protect military airfields from future wind turbine development. On September 28, 2016, Senator John Cornyn from Texas introduced Senate Bill S. 3428 to the US Senate. If passed, the bill would amend the Internal Revenue Code of 1986 to render new wind turbine projects located within a 30-mile radius of an active military airfield or airbase, or DOD air traffic control radar site, weather radar site, or aircraft navigation aid ineligible for the renewable electricity production credit and the energy credit. A similar bill was introduced into House of Representatives by Congressman Chris Collins of New York. House Bill H.R. 6397 was identical to Senate Bill S. 3428 except that it used a 40-mile radius around an active military airfield or airbase, or DOD air traffic control radar site, weather radar site, or aircraft navigation aids. Neither of these bills was enacted during the 114th Congress in which they were introduced and they expired on January 3, 2017. As of January 2017, both bills have been reintroduced and are under consideration.

US Avian Hazard Advisory System

The US Avian Hazard Advisory System (USAHAS) is a geographic information system-based bird avoidance model developed by the US Air Force used for “analysis and correlation of bird habitat, migration, and breeding characteristics, combined with key environmental and man-made geospatial data.” The model provides up-to-date information – “near real-time” – about bird activity and movements to assist pilots and flight planners in the scheduling and use of flight routes. The model can also be used as a forecasting tool to estimate bird strike risk. Information from the North American Breeding Bird Survey, Audubon Christmas Bird Count, bird refuge databases, and the US Air Force Bird-Aircraft Strike database as well as public domain information regarding landfill locations is used to formulate the bird activity and movement data. The model is available for use by agencies and the general public, accessible from the USAHAS website at <http://www.usahas.com/>.

Dyess AFB Plans and Programs

The Dyess AFB plans and programs are the specific, existing tools that the installation, in collaboration with the Department of the Air Force, has developed to implement various federal statutes. These plans may be modified based on mission changes or requirements and funding availability, so they are considered semi-permanent programs.

Dyess AFB AICUZ

The 2015 Dyess AFB AICUZ Study is an update to the Dyess AFB AICUZ Study completed in 2008. It presents a description of the current noise environment around Dyess AFB and reaffirms the Air Force policy of promoting public health, safety, and general welfare in areas in close proximity to Air Force installations. This study identifies changes in flight operations that have occurred since the 2008 study; provides updated noise zones; lists the DOD Land Use Compatibility Guidelines, and contains a land use analysis based on these guidelines. It is provided as a tool to assist local communities in future planning and zoning activities.

The AICUZ provides recommendations to local government and other entities for actions they can implement to further compatible / recommended land use goals and objectives of their comprehensive plans, development codes, and other land use regulations and guidelines.

Installation Development Plan

The 2015 Dyess AFB Installation Development Plan (IDP) provides a developmental path forward that incorporates current and future mission requirements, development constraints and opportunities, and recommended courses of action to achieve optimal use of lands, facilities, and resources in support of installation performance. The IDP is intended to guide future development decisions, including consolidations, new construction, and realignments as mission changes occur. Goals were established to help guide development, including:

- Achieve optimum land use planning.
- Protect and enhance the natural infrastructure by making optimal use of the latest developments in environmental protection, energy-efficiency, and sustainable design.
- Plan for facilities maintainability.

Installation Complex Encroachment Management Action Plan

The Installation Complex Encroachment Management Action Plan (ICEMAP) is an internal Air Force plan that evaluates 13 encroachment challenges identified by Air Force Instruction 90-2001. The plan then develops actions to mitigate any concerns identified by the evaluation. The 2014 Dyess AFB ICEMAP provides the installation commander with strategies to address current encroachment challenges and minimize the likelihood for future encroachment.

The ICEMAP consists of Volumes I and II and a Community Brochure. Volume I is the action plan for mitigating or preventing encroachment challenges. Volume II is a reference guide, which provides all the background data and analysis.

The Community Brochure is to be used as a tool for community education and outreach. Only the Community Brochure is approved for public distribution.

Mid-Air Collision Avoidance Pamphlet

Dyess AFB Flight Safety prepared a pamphlet to increase awareness of military operations and reduce the potential for mid-air collisions. It includes information on highly utilized military operating areas, low level training routes, and other military air corridors surrounding Dyess AFB. The pamphlet has sections for local airspace, mid-air collision avoidance techniques, pilot reaction time, the Dyess AFB mission, Dyess AFB aircraft, and map of the airspace surrounding Dyess AFB.

State of Texas Plans and Programs

Texas Local Government Code Chapter 241, Municipal and County Zoning Authority Around Airports

Texas Local Government Code Chapter 241 (as amended January 2013) allows jurisdictions to adopt airport zoning regulations to regulate land uses within a specific geographic area identified as the Controlled Compatible Land Use Area within unincorporated areas. Texas Local Government Code §241.013 authorizes a city or county with a population exceeding 45,000 to adopt airport zoning regulations over areas outside the city or county. Section 241.014 of the Texas State Local Government Code states that jurisdictions

“...to whose benefit an airport is used in the interest of the public or in which an airport owned or operated by a defense agency of the federal government or the state is located may create a joint airport zoning board with another political subdivision in which an airport hazard area or a controlled compatible land use area relating to the airport is located.”

Each of these entities has the power to adopt, administer, and enforce airport compatible / recommended land use zoning regulations within a statutorily defined area. As per statute, the area of authority can extend no farther than a rectangle bounded by lines located no farther than 1.5 statute miles from the centerline of an instrument or primary runway and lines located no farther than five statute miles from each end of the paved surface of an instrument or primary runway.

Additionally, municipalities can adopt Airport Hazard Area zoning regulations that are not limited to the 1.5 by five mile rectangle. The maximum area that can be covered in the airport hazard area is not defined, but it is generally accepted that they apply to the imaginary surfaces included in FAR Part 77.28. Airport hazard zoning regulations are broader in geographic area but narrower in permissible scope than airport compatibility zoning regulations. They are designed to protect the airport from an actual hazard, such as a structure or object of natural growth that obstructs the airspace required for the taking off, landing, and flight of aircraft or that interferes with visual, radar, radio, or other systems for tracking, acquiring data relating to, monitoring, or controlling aircraft.

In 1996, the Abilene City Council adopted a resolution that approved the formation of the Abilene-Buffalo Gap-Taylor County-Jones County Joint Airport Zoning Board in accordance with Chapter 241. This Board was made up of two members appointed by each jurisdiction and one member elected by the board members to serve as chairperson of the board, for a total of nine members. At the time this JLUS was written, the Joint Airport Zoning Board was not active. However, the Abilene Airport Zoning Ordinance was developed in 2009 and regulates land uses in the airfield safety zones and vertical obstructions around the airfield.

Airport Compatibility Guidelines

The Airport Compatibility Guidelines: Compatibility Planning, Compatible Land Use Zoning, Hazard Zoning for Airports in Texas, was published by the Texas Department of Transportation Aviation Division in January of 2003. The guidelines are a complement to the State of Texas Local Government Code Chapter 241, Municipal and County Zoning Authority around airports. The guidelines are intended to aid decision-makers on how to plan for compatible / recommended use as development occurs closer to airports. The primary tools discussed in the guidelines are Airport Compatible Land Use Zoning Ordinances and Hazard Zoning Ordinances.

The document outlines criteria for the establishment of an Airport Compatible Land Use Ordinance or a Hazard Zoning Ordinance to best support compatible / recommended development in a municipality. It also outlines preparation, such as the prerequisites, needed for implementation of Airport Compatible Land Use Zoning Ordinance and Hazard Zoning Ordinance. It also documents the procedural steps in developing and adopting an Airport Compatible Land Use Zoning Ordinance and / or a Hazard Zoning Ordinance.

Texas Local Government Code Chapter 42, Extraterritorial Jurisdictions of Municipalities

Chapter 42 of the Texas State Local Government Code, Extraterritorial Jurisdictions (ETJ) of Municipalities, designates the area beyond the municipality's boundaries for future growth. The municipality has no zoning authority in this area (except for "Airport Zoning" pursuant to Texas Local Government Code 241), since the designated area is not incorporated into the city. However, Section 42 of the Code does give a city the right to regulate the subdivision of land within the ETJ into parcels of less than five acres. The extent of the ETJ is based on the population of the municipality and as the population grows the ETJ increases, ranging from one-half mile for municipalities with less than 5,000 inhabitants up to five miles for a municipality with 100,000 or more inhabitants. The ETJ also increases as land is annexed to the City. For the City of Abilene, the ETJ is defined as the area within five miles of the current city limits.

Texas Local Government Code Chapter 397, Notification Requirements for Land Use Regulations

Texas Local Government Code § 397.005 requires local governments that are adjacent or near a military installation to seek comments and analysis from the base authorities concerning potential compatibility concerns when an ordinance, rule, or plan proposed by the community may impact military operations or missions associated with the installation. The local government must consider and analyze the comments and analysis before making a final determination relating to the proposed ordinance, rule, or plan.

Texas Military Preparedness Commission

In 2003, Senate Bill (SB) No. 652 established the Texas Military Preparedness Commission to give annual reports to the Governor's office concerning the operation of military installations and related community and business concerns. The Texas Military Value Revolving Loan Account was created, which can issue up to \$250 million in general obligation (GO) bonds to assist communities with significant defense related attributes that enhance the value of their military installations and promote compatible / recommended land use. Under the law, a community near a defense installation may request financial assistance to prepare a comprehensive defense installation and community strategic impact plan that identifies the communities' long-range goals and development proposals. One objective of the plan is to better manage the effects of future community growth on military installations and their training exercise activities.

This strategic impact plan must include a detailed list of existing and future land uses around the impacted military installation. The plan must identify the proposed distribution, location, and extent of land uses such as housing, business, industry, agriculture, recreation, public facilities and grounds, and other categories of existing and proposed land use regulations such as zoning, annexation, and planning recommendations that may impact the military base.

Strategic impact plans are encouraged to be developed in coordination with the military installation into a manual based on proposals outlined in the plan to guide future community development adjacent to the installation. Once established, frequent collaboration between the local communities and the military installation is encouraged to ensure the manual's relevance and maintenance in addressing possible concerns with the installation.

Texas Private Real Property Rights Preservation Act (PRPRPA), Texas Government Code §2007.001

The PRPRPA was adopted by the Texas State legislature as an acknowledgement of the importance of protecting private real property interests and to ensure that certain governmental entities consider their actions on private real property rights. It redefines whether or not an action of the government can be considered a taking. A taking, as defined by the Act, occurs when a governmental action causes a 25 percent or more reduction in the value of private real property affected by the governmental action.

A Takings Impact Assessment (TIA) is required when a governmental action is undertaken that may constitute a taking. If a governmental entity fails to undertake a TIA, the governmental action may be invalidated. The Act defines the required elements of a TIA, as well as criteria for evaluating a TIA. Most significantly, the TIA requires the governmental agency to list and evaluate potential alternatives that could accomplish the specific purpose of the action in question, and compare and evaluate the alternatives to prove that the proposed action is the best suitable option.

The takings clauses of the US and Texas Constitutions set forth that private property shall not be taken for a public use without just compensation. Courts have identified several relevant factors to determine a taking, such as the economic impact of the regulation, the degree to which the regulation interferes with investor-backed expectations, and the character of the government action. Some of the leading US Supreme Court cases have gone as far as stating that as long as the landowner retains some minimal economic use in

his land, no compensable taking occurred. (See *Penn Central vs. New York City*, 438 US 104 [1978] *Dolan vs. City of Tigard*, US 374 [1994], *Lucas vs. South Carolina Coastal Commission*, 505 US 1003 [1992]). Any governmental entity contemplating issuing ordinance, orders or legislation to implement JLUS recommendations should consult their own legal counsel for takings analysis. Even if there is no compensable taking, the governmental entity should weigh private property rights and balance that against the benefits that the contemplated restrictions offer.

Regional Planning Tools

Regional planning is conducted by the West Central Texas Council of Governments. West Central Texas Council of Governments is a political subdivision or governmental unit of the state of Texas serving the 19 counties, including cities and other districts, of Brown, Callahan, Coleman, Comanche, Eastland, Fisher, Haskell, Jones, Kent, Knox, Mitchell, Nolan, Runnels, Scurry, Shackelford, Stephens, Stonewall, Taylor and Throckmorton in a rural area encompassing 18,000 square miles.

The council addresses issues such as regional planning, economic and community development, hazard mitigation and emergency planning, aging services, water use, pollution control, law enforcement training, youth and community programs, and transportation planning. The council plans, assists local governments, and delivers public services, but has no power to tax or to regulate. The Executive Committee is comprised entirely of local elected officials.

Taylor County

Taylor County Subdivision Ordinance

Taylor County established regulations for subdivision plans, street construction, and drainage in August 2006. The regulations were passed to protect property owners from inadequate road construction and drainage, along with inadequate identification for tax purposes. The ordinance does not address any type of military compatible / recommended land use regarding noise, lighting, safety, etc.

Overall, Taylor County lacks formal land use controls, especially associated with compatible / recommended land use with Dyess AFB. However, the Texas Airport Zoning Act allows the City of Abilene to enforce airport hazard area zoning regulations outside city limits through extraterritorial jurisdiction zoning, which can assist with future compatible / recommended land use between unincorporated county areas and Dyess AFB. Taylor County can also participate in an established Joint Airport Zoning Board around Dyess AFB.

City of Abilene

Comprehensive Plan

The 2004 Abilene Comprehensive Plan contains elements outlining land use and development, neighborhoods, community appearance, community facilities and services, natural environment and resources, and economic base. The plan establishes a coordinated set of policies to guide Abilene's physical development.

The following growth and land use strategies were found to directly help Dyess AFB:

Strategy 42: Annex areas to the south and west of Dyess Air Force Base and to the south and east of Abilene Regional Airport, all as shown on the Future Land Use and Development Plan, as a means for controlling incompatible encroachment.

Strategy 45: Proactively pursue regional land use and resource planning with Taylor, Callahan, Jones, and Shackelford Counties, the City of Tye, and other regional governments, local federal installations such as Dyess AFB, special service districts, local school districts, and affected state and federal agencies.

The Economic Base Element of the plan has a section discussing Dyess AFB. The objective of the section is to support and promote Dyess AFB as a long-term community asset. The following strategies were included to accomplish this objective:

Strategy 18: Prohibit urban expansion into areas that encroach upon the operation of the base. The City should ensure compliance with this effort by controlling development in and around the installation, and annexing areas on the south and west side of the installation.

Strategy 19: Coordinate with Dyess AFB on transportation and land use planning in the base environs to strengthen new programs and new missions at the installation.

Strategy 20: Expand education campaigns directed to local residents that explain the impact the base has on Abilene and the positive effects the military has on the local economy.

Additionally, Abilene has an annexation policy in Appendix A regarding infill, stating:

Scenario B3: Select areas are designated for future annexation to prevent residential development around Dyess Air Force Base and Abilene Regional Airport.

Zoning Regulations

Abilene's Zoning Regulations are included in Chapter 2 of its Land Development Code and divide the land within the city into 27 base districts and 6 overlay districts. The main body of the ordinance only applies within the corporate limits of Abilene, but the Airport Zoning Ordinance extends into unincorporated areas within the ETJ of the City of Abilene, which cover the Airport Hazard Areas surrounding Dyess AFB and Abilene Regional Airport.

Section 2.3.5.1 of the ordinance establishes Airport Zoning, which is intended to protect health, safety, and general welfare of the public and regulate airport zoning hazard areas and compatible / recommended land uses surrounding airports in the city. The development and establishment of the Airport Zoning Ordinance was a collaborative process involving the City of Abilene, Taylor County, Dyess AFB, and property owners within the affected area. While the AICUZ recommendations were used as a starting point in the process, the ultimate decisions made by the City of Abilene took some of the AICUZ recommendations into consideration, but intentionally does not contain all of them. These decisions were made to accommodate local preferences, quality of life, and desired lifestyle of the community.

Height limitations established by the ordinance include all of the land beneath the approach surfaces, transitional surfaces, horizontal surfaces, and conical surfaces as they apply to Dyess AFB. Land use regulations are also established by the ordinance, which are similar to the recommendations outlined in the AICUZ; however, there are some differences which were agreed upon by all parties that participated in the development of the ordinance. For example, the ordinance allows residential development in APZ I to accommodate local preferences and quality of life, yet this is not recommended in the AICUZ. There are no land use regulations associated with the Dyess AFB noise contours. Noise regulations within the Dyess AFB noise contours were considered for inclusion in the zoning ordinance, but were omitted through a public process in which many of the property owners within the noise contours publicly stated that they accept the risks and impacts associated with noise generated by Dyess AFB aircraft operations and requested that noise regulations be removed from the ordinance. If any changes or updates to the Airport Zoning Ordinance are considered by the City of Abilene in the future, they will require review and input from property owners of land within the zoning area. This will ensure a collaborative process between the City and the affected property owners.

An Airport Zone Development Permit is required within the Airport Hazard Areas, which is defined as any area of land or water on which an airport hazard could exist. Any allowable home or other primary structure less than 50 feet in height in the APZ I and less than 150 feet in height in the APZ II and beyond is exempt from obtaining an Airport Zone Development Permit. The Planning Director is required to forward any application for a variance or special exception to the Dyess AFB civil engineer for consideration. After reviewing the application, the base civil engineer may make a recommendation to the Board of Adjustment.

Under Section 4.2.7.1 of the city's Land Development Code (Chapter 4: Site Development Regulations), lighting standards are established. In order to avoid undue glare and light trespass, all outdoor lighting fixtures are to be fully shielded, except incandescent fixtures of one hundred fifty watts or less or other sources of seventy watts or less. Canopy lighting must be fully shielded. No flickering or flashing lights are permitted. The Board of Adjustment may agree to allow variations from these standards by granting a Special Exception.

Subdivision Regulations

The City of Abilene enforces their subdivision regulations through Chapter 3 of the Land Development Code. The subdivision regulations were adopted in 2010.

The current subdivision regulations for the City of Abilene outline requirements for the subdivisions of land to ensure orderly, efficient, and coordinated development. These terms apply to all land within the city limits and all unincorporated land within the ETJ.

Subdivision regulations can help to protect Dyess AFB from incompatible / not recommended development early in the development process by regulating items such as lot size, street lights (downward facing lights), etc. However, Abilene's subdivision ordinance does not specifically call out protections for Dyess AFB when subdividing land within the installation proximity. The ordinance does not specifically address any type of military compatible / recommended uses regarding concerns such as lighting and lot size.

City of Tye

General Plan Report

The City of Tye's General Plan Report was created in 2004. It breaks the land within the city and its ETJ into 10 Planning Districts for ease of gathering data to develop the Plan. Tye's General Plan recognizes the importance of Dyess AFB to the city and the region and acknowledges that the noise zones and accident potential zones identified in the AICUZ are constraints for future development and that new residential uses should avoid being built in these areas. The noise zones and accident potential zones are included on one of the maps within the General Plan to identify their locations and how they overlay portions of the city. While the General Plan acknowledges and references the AICUZ as an important document to utilize when assessing future development patterns, it also identifies that following AICUZ recommendations in some areas may detract from the city's character and may limit the city's future development opportunities within the safety zones and noise zones. The General Plan does not have specific policies for incorporating AICUZ recommendations into the planning review process.

Zoning Ordinance

The City of Tye adopted a zoning ordinance in 2006, separating the city into eight zoning districts. Lot size requirements, lot area, density, and height regulations and permissible uses are detailed under district regulations. The ordinance does not include a stand-alone district or overlay for airport or military zoning.

The ordinance establishes maximum heights for each district. The Mobile/Modular Home District allows a maximum height of 20 feet. The Single-Family Residence District allows a maximum height of 30 feet. The Multi-Family Residence and Local Business Districts allow a maximum height of 40 feet. The Agricultural Open Space District allows a maximum height of 45 feet. The General Business District allows a maximum height of 125 feet. The Light Industrial and Heavy Industrial Districts allow a maximum height of 100 feet.

There are various zoning districts that allow height maximums that may interfere with the air missions at Dyess AFB due to the fact that tracts of the city are located within Dyess AFB safety zones.

The height regulations established by the ordinance do not apply to television and radio towers, church spires, belfries, monuments, tanks, water and fire towers, stage towers or scenery lofts, cooling towers, ornamental towers, and spires, chimneys, elevator bulkheads, smokestacks, conveyors, and flagpoles. With these exceptions, the proximity of tall towers to Dyess AFB can have impacts on flight operations.

Subdivision Ordinance

The City of Tye enforces their subdivision regulations through Chapter 10 of the City Code of Ordinances. The subdivision ordinance was adopted in 2006.

The current subdivision regulations for the City of Tye outline requirements for the development, layout, design, and public review of subdivisions of land. These terms apply to all land within corporate city limits and all unincorporated land within the one-half mile ETJ.

Subdivision regulations can help to protect Dyess AFB from incompatible / not recommended development early in the development process. However, the subdivision ordinance does not specifically call out protections for Dyess AFB when subdividing land near the installation. The ordinance does not address any type of military compatible / recommended land uses regarding noise, lighting, safety, etc.

Please see the next page.

COMPATIBILITY ASSESSMENT 5

Identification of Compatibility Issues

Compatibility, in relation to military readiness, can be defined as the balance or compromise between community needs and interests and military needs and interests. The goal of compatibility planning is to promote an environment where both community and military entities communicate, coordinate, and implement mutually supportive actions that allow both to achieve their respective objectives.

A number of factors assist in determining whether community and military plans, programs, and activities are compatible / recommended or in conflict with joint land uses such as community activities and military installations. For this JLUS, 24 compatibility factors were used to identify, determine, and establish a set of key JLUS compatibility issues. The compatibility factors are:

COMPATIBILITY FACTORS			
AQ	Air Quality	LU	Land Use
AT	Anti-Terrorism / Force Protection	LEG	Legislative Initiatives
BIO	Biological Resources	LG	Light and Glare
COM	Coordination / Communication	MAR	Marine Environments
CR	Cultural Resources	NOI	Noise
DSS	Dust / Smoke / Steam	PT	Public Trespassing
ED	Energy Development	RC	Roadway Capacity
FSC	Frequency Spectrum Capacity	SA	Safety Zones
FSI	Frequency Spectrum Impedance / Interference	SNR	Scarce Natural Resources
LHA	Local Housing Availability	VO	Vertical Obstructions
IE	Infrastructure Extensions	V	Vibration
LAS	Land / Air / Sea Spaces	WQQ	Water Quality / Quantity

An action undertaken by either the military or community that minimizes, hinders, or presents an obstacle to the action of the other is characterized as an issue. Issues arising on the part of either or both the military and community are grouped according to the relevant factor and listed in this chapter. For each identified issue, a compatibility assessment is provided discussing the nature and cause or source of the issue followed by applicable existing tools currently used or that may be used to mitigate encroachment or prevent the emergence of encroachment in the future, including an assessment of their effectiveness.

It is important to note that throughout the Dyess AFB JLUS process, property owners in the unincorporated View / Caps Community to the south and west of Dyess AFB were very involved and invested in the JLUS process and development of the study. As property owners in the areas affected by safety (clear zones and accident potential zones) and noise generated by aircraft operating at Dyess AFB, these citizens were influential in the assessment of the JLUS compatibility issues, particularly regarding safety and noise. While it is part of the JLUS process to identify and assess existing conditions (e.g., noise from aircraft operations that goes outside of the boundaries of Dyess AFB), the current View / Caps property owners have publicly stated that they do not have any concerns with safety or noise, and they accept the levels of noise generated by aircraft at Dyess AFB. These property owners are proud to have Dyess AFB as their neighbor and have voiced their continued support for Dyess AFB's missions.

Methodology and Evaluation

The methodology for the development of Dyess AFB JLUS compatibility issues consisted of a comprehensive and inclusive discovery process to identify key stakeholder issues associated with the compatibility factors. During the beginning phase of the project, a week-long stakeholder interview process took place in which representatives from various stakeholder groups were interviewed to discuss the JLUS process and identify any compatibility issues they felt were existing or could occur in the future. These interviews occurred with representatives from the following stakeholder groups:

- Abilene Chamber of Commerce
- City of Abilene
- City of Tye
- Dyess AFB
- Taylor County
- View / Caps Community property owners
- West Texas Council of Governments

Additional compatibility issues were identified through meetings with the JLUS Policy Committee (PC) and Technical Advisory Committee (TAC), at public workshops, and through technical evaluation and related experience by the project team. While it was not possible to meet with every single stakeholder or property owner in the Study Area, the groups that were interviewed and the attendees of the committee meetings and public workshops served as representatives of their respective stakeholder groups to provide valuable input on the issues relevant to their groups.

As a part of the issue evaluation phase, the PC, TAC, and the public examined and prioritized the extent of the identified existing and potential future compatibility issues that could impact land within the JLUS Study Area and ranked them by priority of how important each issue was to that individual or the stakeholder group that they represent. The evaluation and prioritization of issues helped to determine the level of concern that various stakeholder groups had for each identified issue.

The development of strategies (see Chapter 6, Implementation Plan of the JLUS Report) to address compatibility is directly and indirectly affected by the evaluation of issues. The prioritization of issues helped to determine the severity of each issue and its impact on both the Dyess AFB mission and quality of life of the residents and community around the base, and to identify a timeframe in which the issue should be addressed through the strategies developed for the Implementation Plan. Of the 24 compatibility factors considered, nine were determined to be inapplicable to this JLUS, as no issues were identified for them:

- Air Quality
- Cultural Resources
- Dust / Smoke / Steam
- Frequency Spectrum Capacity
- Frequency Spectrum Impedance / Interference
- Infrastructure Extensions
- Legislative Initiatives
- Marine Environments
- Scarce Natural Resources

Dyess AFB JLUS Compatibility Issues by Factor

Anti-Terrorism / Force Protection

Anti-Terrorism Force Protection (AT / FP) relates to the safety of personnel, facilities, and information on an installation from outside threats. Security concerns and trespassing can present immediate compatibility concerns for installations. Due to current global conditions and recent events, military installations are required to implement more restrictive standards to address AT / FP concerns. These measures include increased security checks at installation gates and physical changes (such as new gate / entry designs). The following AT / FP issues were identified:

- **Rister Park's proximity to Dyess AFB**
Rister Park in the City of Tye is adjacent to Dyess AFB's northwestern boundary and allows visitors to view into the base and observe aircraft on the runway.
- **Terrorism coordination with local communities**
Local law enforcement officers have expressed concern with a lack of communication and coordination from Dyess AFB on potential terrorist threats.

Biological Resources

Biological resources include federal and state listed species (threatened and endangered species) and their habitats. These resources may also include areas such as wetlands and migratory corridors that are critical to the overall health and productivity of an ecosystem. The presence of sensitive biological resources may require special development considerations and should be included early in the planning process. The following Biological Resource issue was identified:

- **Texas horned lizard**
The Texas horned lizard is a state threatened species that has been known to live in the JLUS Study Area. Increased populations of this species on Dyess AFB property could result in certain restrictions to base operations, dependent upon the location of the populations.

Communication / Coordination

This discussion refers to the programs and plans that promote interagency communication and coordination. Interagency communication serves the general welfare by promoting a more comprehensive planning process inclusive of all affected stakeholders. Interagency coordination also seeks to develop and include mutually beneficial policies for both communities and the military in local planning documents, such as comprehensive plans. The following Communication / Coordination issues were identified:

- **Limited formal communication between Dyess AFB and local communities**
Dyess AFB does not have as strong of a communication link with the City of Tye and Taylor County as it does with the City of Abilene. Dyess AFB has minimal, and no formal, communication with property owners who live or own property in the noise contours and safety zones, or adjacent to the base. Additionally, when Dyess AFB contacts local media about abnormal mission activities, they do not always contact staff and elected / appointed officials in Abilene, Tye and Taylor County.
- **New property buyers in the region may not be aware of Dyess AFB operations**
New property buyers in the region around Dyess AFB may not be aware that they are purchasing property in an area that may be impacted by Air Force operations, and how the operations may impact their quality of life, such as by the generation of noise or vibration.

Energy Development

Development of energy sources, including alternative energy sources (such as solar, wind, geothermal, or biofuels) could pose compatibility issues related to glare (solar energy), or vertical obstruction (wind generation). The following Energy Development issues were identified:

■ Wind turbine development

Wind turbine development has occurred in the region around Dyess AFB, and more is anticipated in the future. Wind farm development can have several impacts on mission operations at Dyess AFB, including causing vertical obstructions and degrading radar performance.

■ Solar energy development

While there is currently no major solar development in the region around Dyess AFB, future solar farms could be built in the region. Depending on the location and types of materials used for solar farm construction, this could have impacts on aircraft operations.

Housing Availability

Local housing availability addresses the supply and demand for housing in the region, the competition for housing that may result from changes in the number of military personnel, and the supply of military family housing provided by the installation. The following Housing Availability issue was identified:

■ Housing rental market does not meet the needs of Dyess AFB

The housing rental market in the communities around Dyess AFB does not have an adequate amount of available and appropriate residential properties to meet the needs of the current mission and potential future growth.

Land / Air / Sea Space Competition

The military manages or uses land, air, and sea space to accomplish testing, training, and operational missions. These resources must be available and of a sufficient size, cohesiveness, and quality to accommodate effective training and testing. Military and civilian air and sea operations can compete for limited air and sea space, especially when the usage areas are in close proximity to each other. Use of this shared resource can impact future growth in operations for all users. While this JLUS assesses land and airspace competition, due to Dyess AFB's location, there is no sea space competition. The following Land / Air / Sea Space Competition issues were identified:

■ Future usage of commercial and recreational unmanned aerial systems

As unmanned aerial systems become more available and popular among commercial and recreational users, they may pose safety concerns for flight operations at Dyess AFB.

■ Local private aircraft operating near Dyess AFB

Due to the location of pipelines and agricultural uses in the region around Dyess AFB, private aircraft such as surveyors and crop dusters sometimes fly near the base. Although these aircraft are required to contact the Dyess AFB control tower, this does not always occur, which presents safety concerns between aircraft.

Land Use

The basis of land use planning and regulation relates to the government's role in protecting the public's health, safety, and welfare. Local jurisdictions' comprehensive plans and zoning ordinances can be the most effective tools for preventing or resolving land use compatibility issues. These tools ensure the separation of land uses that differ significantly in character. Land use separation also applies to properties where the use of one property may adversely impact the use of another. For instance, industrial uses are often separated from residential uses to avoid impacts from noise, odors, and lighting. The following Land Use issues were identified:

- **Incompatible / not recommended land uses in Tye**

There are existing incompatible / not recommended land uses within the City of Tye based on the Dyess AFB AICUZ and many of Tye's ordinances are outdated and do not support compatible / recommended development per the Dyess AFB AICUZ recommendations. There also is a potential for incompatible / not recommended development along Interstate 20.

- **Incompatible / not recommended land uses in Abilene's extraterritorial jurisdiction**

There are existing incompatible / not recommended land uses within Abilene's extraterritorial jurisdiction (ETJ) based on the Dyess AFB AICUZ recommendations.

- **Incompatible / not recommended land uses in Taylor County**

There are existing incompatible / not recommended land uses within Taylor County, partially resulting from properties being platted without County approval.

- **Misunderstanding of the City of Abilene's extraterritorial jurisdiction**

A city's ETJ allows the city to extend its regulatory influence outside of the city limits into a designated portion of unincorporated county land. Some property owners or residents living in Abilene's ETJ may not be aware that they are in an area where land use can be regulated by the City.

- **No Tye building inspector**

The City of Tye does not have financial resources to employ a full-time building inspector. This can result in potential incompatible / not recommended land use development if buildings are not properly inspected and approved.

Light and Glare

This factor refers to man-made lighting (street lights, airfield lighting, building lights) and glare (direct or reflected light) that disrupts vision. Light sources from commercial, industrial, recreational, and residential uses at night can cause excessive glare and illumination, impacting the use of military night vision devices and aircraft operations. Conversely, high intensity light sources generated from a military area (such as ramp lighting) may have a negative impact on the adjacent community. The following Light and Glare issue was identified:

- **Red LED lighting on towers**

Some commercial wind farms have started to use red LED lights for nighttime identification of their locations. Red LED lights cannot always be seen by night vision goggles, causing safety concerns when pilots are flying using such devices.

Noise

Sound that reaches unwanted levels is referred to as noise. The central issue with noise is the impact, or perceived impact, on people, animals (wild and domestic), and general land use compatibility. Exposure to high noise levels can have a significant impact on human activity, health, and safety. The decibel (dB) scale is used to quantify sound intensity. To understand the relevance of decibels, a normal conversation often occurs at 60 dB, while an ambulance siren from 100 feet away is about 100 dB. Noise associated with military operations (arrival / departure of military aircraft, firing of weapons, etc.) may create noises in higher dB ranges.

Many property owners / residents around Dyess AFB stated continuously throughout the JLUS process that noise is not a public health, safety, and welfare concern for them.

The following Noise issues were identified:

- **Noise from aircraft operations**
The aircraft operations that occur at Dyess AFB produce noise that can be heard outside the boundaries of the base, within surrounding communities.
- **Incompatible / not recommended residential land uses in aircraft noise zones**
There are existing homes located within the Dyess AFB noise zones. Many of those homes have been there for a very long time and many residents who live there accept the noise.

Public Trespassing

This factor addresses public trespassing, either purposeful or unintentional, onto a military installation. The potential for trespassing increases when public use areas are in close proximity to an installation. The following Public Trespassing issue was identified:

- **Accidental trespass by motorists**
Motorists using GPS services to get directions to commercial amenities such as shopping, restaurants, or banks sometimes accidentally try to enter Dyess AFB without proper credentials. Certain GPS services direct users to commercial amenities that are located on-base as being the closest location.

Roadway Capacity

Roadway capacity relates to the ability of existing freeways, highways, arterials, and other local roads to provide adequate mobility and access between military installations and their surrounding communities. The following Roadway Capacity issues were identified:

- **Congestion during peak travel times**
During peak times, there may be up to or more than 20 vehicles stacked up at the gate to enter Dyess AFB. This can cause delays in getting onto the base due to the time it takes to process drivers through security.
- **Prohibited truck travel on Air Base Road**
Commercial trucks bringing materials to Dyess AFB sometimes use Air Base Road, which is incompatible with trucks because the road was not constructed to support heavy vehicles.

Safety

Safety zones are areas in which development should be more restrictive regarding use and concentrations of people due to the higher risks to public safety. Issues to consider include aircraft accident potential zones. The following Safety issues were identified:

- **Wildlife and birds cause safety hazards for aircraft**

Wildlife, such as coyotes and birds sometimes enter aircraft operational areas and cause safety hazards to aircraft.

- **Development in clear zone / base property**

A private property owner has built a garage extension onto their home that extends into the clear zone, which is owned by Dyess AFB.

Vertical Obstructions

Vertical obstructions are created by buildings, trees, structures, or other features that may encroach into the navigable airspace or impede line-of-sight radar signals used by the military. These obstructions can be a safety hazard to both the public and military personnel and potentially impact military readiness. The following Vertical Obstructions issues were identified:

- **Topography in the imaginary surfaces**

Topographic features (bluffs) southwest of Dyess AFB are within the imaginary surfaces. Any development on the bluffs that is within the imaginary surfaces may possibly create a vertical obstruction.

- **No cell tower regulations**

The City of Tye and Taylor County do not currently have regulations for siting cell towers, except when a tower meets the criteria for a Part 77 review. This can potentially lead to the development of vertical obstructions within the imaginary surfaces.

Vibration

Vibration is an oscillation or motion that alternates in opposite directions and may occur as a result of an impact, explosion, noise, mechanical operation, or other change in the environment. Vibration may be caused by military and / or civilian activities. The following Vibration issue was identified:

- **Vibration caused by aircraft operations**

Areas around Dyess AFB sometimes experience vibration from aircraft operations.

Water Quality / Quantity

Water quality / quantity concerns include the assurance that adequate water supplies of good quality are available for use by the installation and surrounding communities as the area develops. Water supply for agriculture and industrial use is also considered. The following Water Quality / Quantity issues were identified:

- **Flooding on-base**

A large portion of Dyess AFB lies within the 100-year flood plain and parts of the base experience flooding during heavy rains. This can impact mission operations if flooding occurs in areas such as the runway.

- **Off-base flooding**

During heavy rain events, water from Dyess AFB traverses across the base boundary and Airbase Road into adjacent areas within the City of Tye, causing flooding.

Please see the next page.



RECOMMENDATIONS 6

Implementation Plan

This chapter identifies and organizes the recommended courses of action (strategies) that have been developed through a collaborative effort between representatives of local jurisdictions, property owners, Dyess AFB, local organizations, the general public, and other stakeholders that own or manage land or resources in the region. Since the Dyess AFB JLUS is the result of a collaborative planning process, the strategies represent a true consensus plan; a realistic and coordinated approach to compatibility planning developed with the support of stakeholders involved throughout the process.

The JLUS strategies incorporate a variety of actions that promote education, communication, compatible / recommended land use, and resource planning. Upon implementation, existing and potential compatibility issues arising from the civilian / military interface can be removed or significantly mitigated. The recommended strategies function as the heart of the JLUS document and are the culmination of the planning process.

It is important to note that the JLUS is not an adopted plan, but rather a recommended set of strategies which should be implemented by the JLUS participants in order to address current and potential future compatibility issues.

Each of the JLUS strategies that are included in this chapter is meant to address the specific compatibility issues that are described in greater detail in Chapter 5 of the Dyess AFB JLUS Background Report. The issues are identified before each set of associated strategies as a point of reference to what the strategies are addressing. The issues correspond to the compatibility factors in Chapter 5 of the Background Report for easy reference and can be used to read additional information on the specifics of the issues.

The key to the implementation of strategies is the establishment of the Dyess AFB Partnership Committee (see Strategy COM-1A) to oversee the execution of the JLUS. Through this committee, local jurisdictions, Dyess AFB, property owners, and other stakeholder parties can continue their collaboration to establish procedures, recommend or refine specific actions, and make adjustments to strategies over time to ensure the JLUS continues to resolve key compatibility issues into the future through realistic strategies and implementation.

Implementation Plan Guidelines

The key to a successful Implementation Plan is balancing the different needs of all involved stakeholders. To produce a balanced plan, several guidelines were used as the basis for strategy development. These guidelines included:

- Recommended strategies must not result in a taking of property value as defined by state law.
- In some cases, the recommended strategies can only be implemented with new enabling legislation.
- In order to minimize regulation, many of the strategies are only recommended within the specific geographic area for which the issue they address occurs (e.g., within the Dyess AFB noise contours), instead of recommended for the whole JLUS Study Area.

- Similar to other planning processes that include numerous stakeholders, the challenge is to create a solution or strategy that meets the needs of all parties. In lieu of eliminating strategies that do not have 100 percent buy-in from all stakeholders, it was determined that the solution / strategy may result in the creation of multiple strategies that address the same issue but tailored to individual circumstances.
- Since this JLUS is meant to be a “living document”, and state and federal regulations are subject to change, before implementing one of the suggested strategies included in the Implementation Plan, the implementing jurisdiction or party should ensure there is no conflict between the strategy and any existing local, state, or federal law.

Dyess AFB Influence Areas

For this JLUS, the term Dyess AFB Influence Area is used to identify a geographic area where Dyess AFB operations may impact local communities, and conversely, where local activities may affect the base’s ability to carry out its mission(s). The Dyess AFB Influence Areas are designed to accomplish the following:

- Promote an orderly transition between community and military land uses so that land uses remain compatible / recommended.
- Maintain operational capabilities of military installations and areas.
- Promote an awareness of the size and scope of military training areas to protect areas outside Dyess AFB (e.g., critical air space) used for training purposes.
- Inform the local community of compatibility recommendations within the designated areas that are part of this JLUS.
- Protect public health, safety, and welfare.

The Dyess AFB Influence Areas are used to define the geographic areas where certain JLUS strategies are to be applied. This technique ensures the strategies are applied to the appropriate areas, and that locations

deemed not subject to a specific compatibility issue are not adversely impacted by strategies inappropriate for their location or circumstance. These Dyess AFB Influence Areas are recommended under Strategy LU-1D in Table 3 later in this chapter.

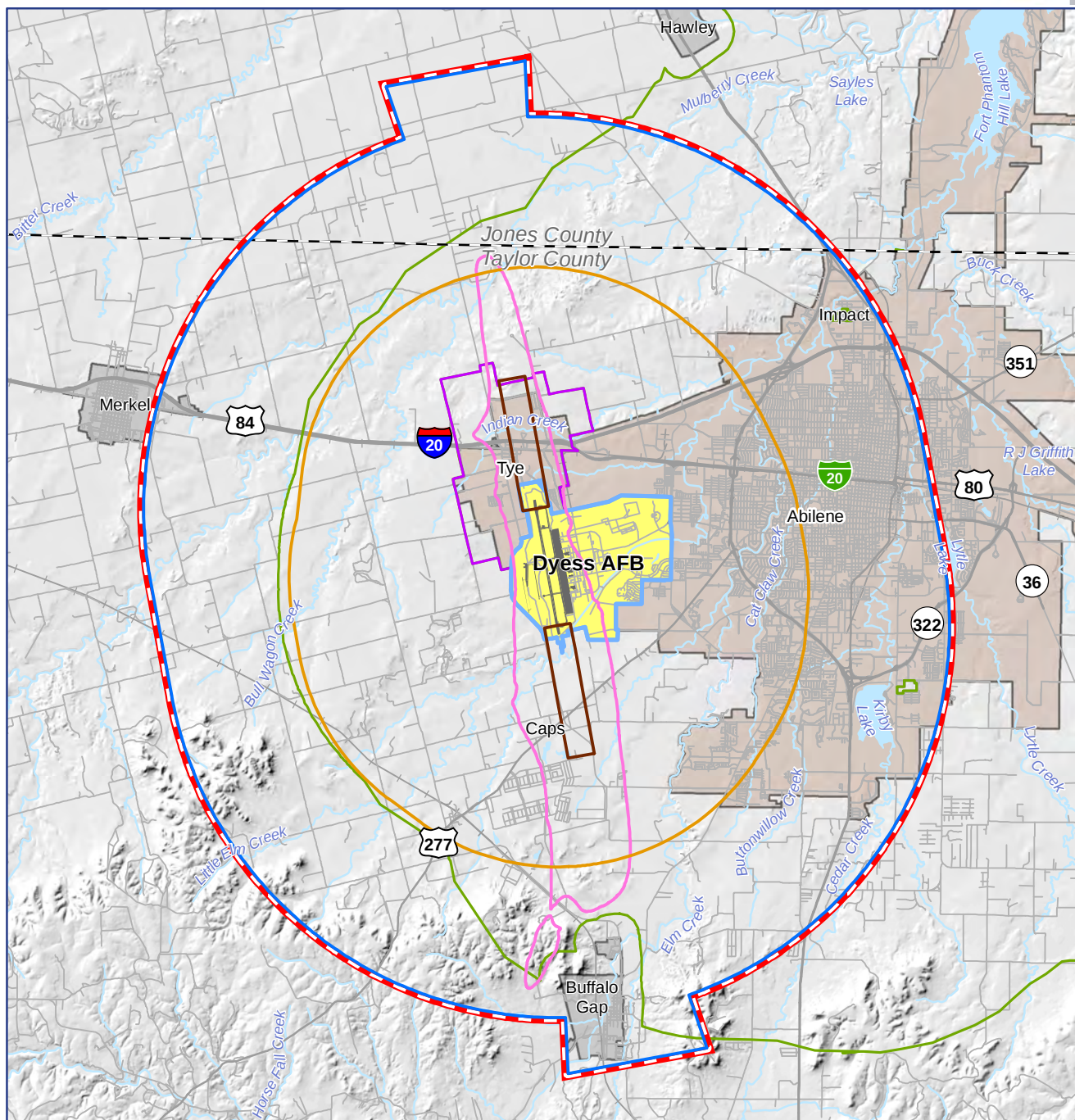
The proposed Dyess AFB Combined Influence Area Overlay is an area that incorporates all of the individual Influence Areas. The Dyess AFB Combined Influence Area Overlay is illustrated on Figure 11. The individual Influence Areas are described on the following pages.

Dyess AFB Safety Influence Area (Figure 12)

The proposed Safety Influence Area would endorse compatible / recommended land use types and densities / intensities within the Clear Zones (CZs) and Accident Potential Zones (APZs) I and II of Dyess AFB’s runway. Each area would be a subzone of the Safety Influence Area. The current location of each safety subzone is based on the airfield layout and air operations identified in Dyess AFB’s AICUZ Report.

The Safety Influence Area is needed to prevent the development of incompatible / not recommended land uses in areas with the greatest potential for an aircraft mishap. These safety zones were identified as a result of the Air Force’s guidance that defines APZs as areas where an aircraft mishap is most likely to occur (in the unlikely event that one was to occur). The APZs follow departure, arrival, and flight patterns and are based upon analysis of historical data.

Within the CZ, most types of land use are incompatible / not recommended with aircraft operations. It is recommended that no development be located within CZs. Compatibility guidelines preclude land uses that concentrate large numbers of people (such as residences, apartments, hospitals, churches, and schools) from being constructed within the APZs. While the likelihood of a mishap is low, the Air Force recommends low density land uses within the APZs to ensure the maximum protection of public health and property.



Legend

- | | | |
|--------------------------------------|---------------------------------------|-------------------|
| Combined Influence Area Overlay | Dyess Air Force Base | Interstate |
| Safety Influence Area | County | Highway |
| BASH Influence Area | Community Covered by JLUS | Local Road |
| Noise Influence Area | Tye Extraterritorial Jurisdiction | Railroad |
| Vertical Obstructions Influence Area | Abilene Extraterritorial Jurisdiction | Runway / Airfield |
| | Other Community | Water Body |
| | | Stream / River |



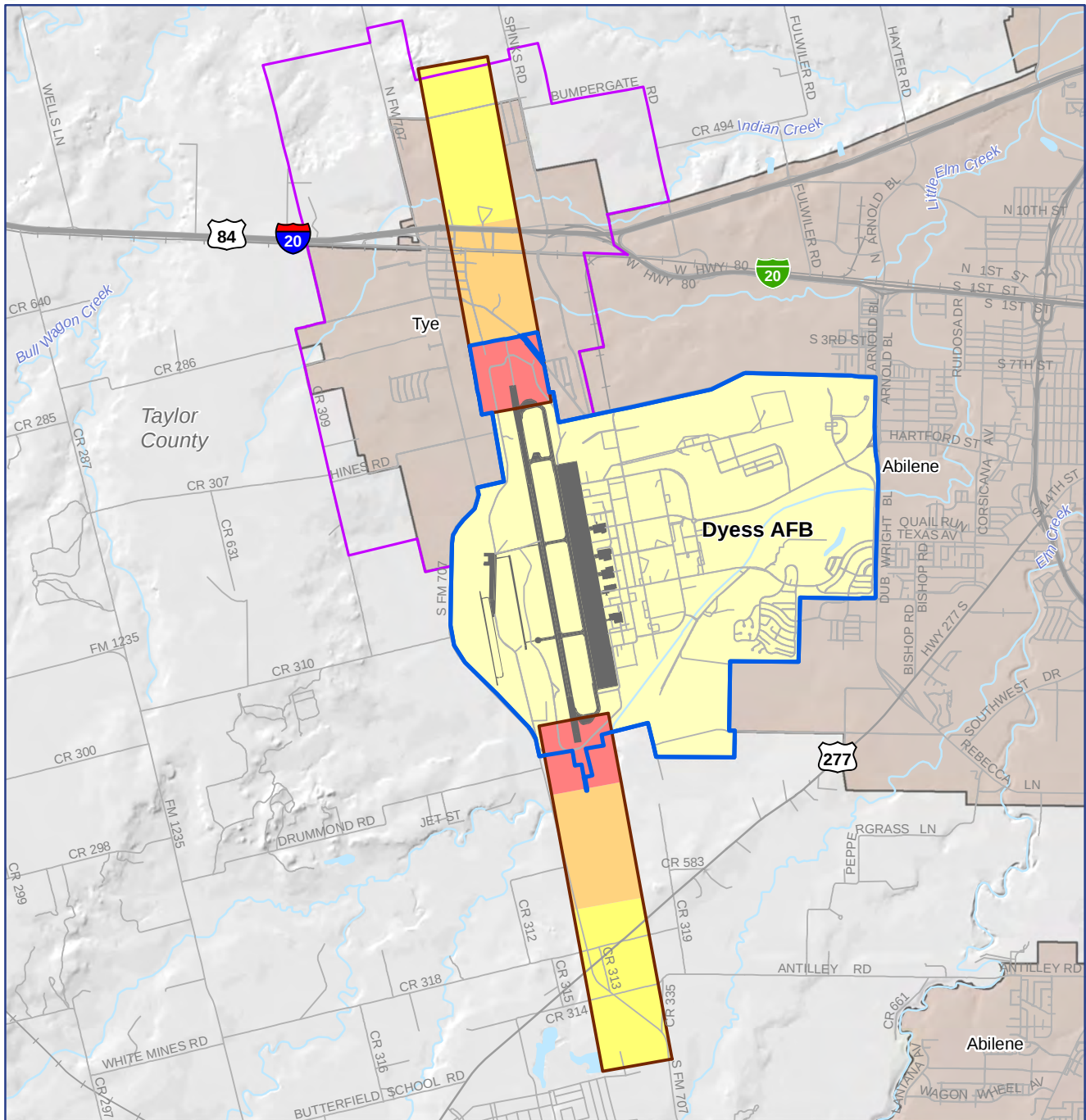
Source: Dyess AFB 2015 AICUZ, Matrix Design Group, 2017.



0 1 2 Miles

Figure 11

Dyess AFB Combined Influence Area Overlay



Legend

- Safety Influence Area
- Dyess Air Force Base
- *Tye Extraterritorial Jurisdiction (ETJ)
- Clear Zone
- APZ I
- APZ II
- Community Covered by JLUS
- Interstate
- Highway
- Local Road
- Railroad
- Runway / Airfield
- Water Body
- Stream / River

*Portions of the APZ that lie outside of the Dyess AFB Perimeter and that do not fall within the City of Tye ETJ are located within the City of Abilene's ETJ
Source: Dyess AFB 2015 AICUZ, Matrix Design Group, 2017.



0 1/2 1 Miles

Figure 12
Dyess AFB Safety Influence Area

Low density single family residential uses (1 to 2 units per acre) can be compatible / recommended when located within APZ II. Other generally compatible / recommended uses include agriculture, limited intensity office / retail, and light industrial.

Dyess AFB BASH Influence Area (Figure 13)

The proposed Bird / Wildlife Aircraft Strike Hazard (BASH) Influence Area extends from the airport operational area at Dyess AFB for a radius of five miles. This Influence Area is meant to include areas near the airfield with the highest safety concerns if concentrations of birds or bird-attractant uses were located there. Bird strikes with aircraft can have serious safety concerns, including the potential for loss of life or aircraft. Even minor bird strikes can cause costly repairs to aircraft and impact training missions. The five mile distance associated with the BASH Influence Area is a Federal Aviation Administration (FAA) recommended standard for managing bird attractants around runways.

Dyess AFB Noise Influence Area (Figure 14)

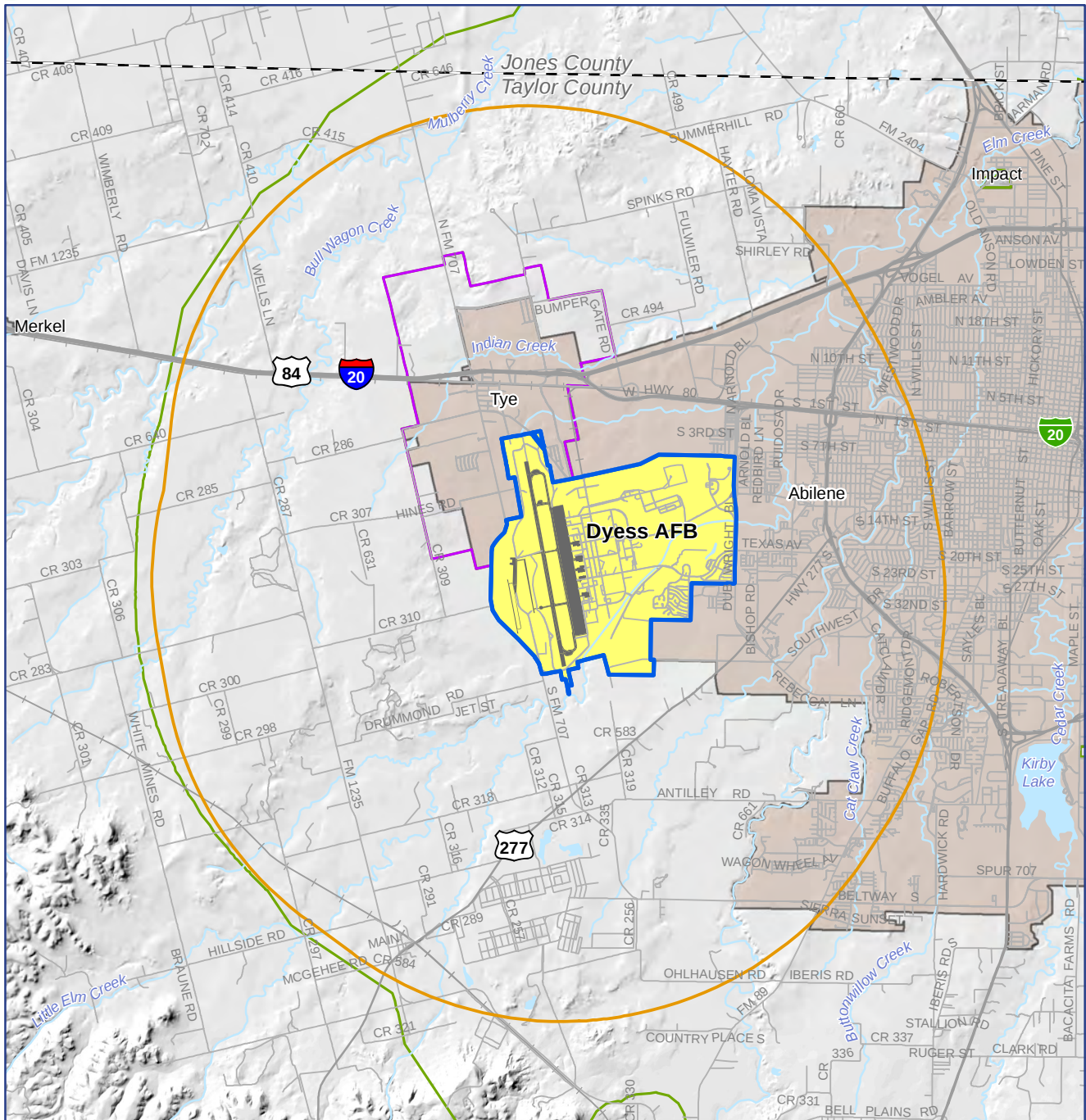
The Noise Influence Area includes all land located off-installation within Dyess AFB noise contours greater than 65 decibels (dB) day-night sound level (DNL) associated with military aircraft activities. Residential developments and other noise-sensitive land uses within this Influence Area may be recommended to consider sound attenuation measures to reduce interior noise impacts and achieve a maximum interior noise level of 45 dB DNL.

Without proper sound attenuation to reduce interior sound levels, certain uses such as residential, and other noise sensitive user groups, including schools, healthcare facilities, and churches, are considered incompatible / not recommended within areas that experience noise levels of 65 dB DNL or greater. Uses that are compatible / recommended within airfield noise contours are office / retail and manufacturing / industrial when interior noise levels are less than 70 dB DNL. While regulated sound attenuation measures may not be necessary in the Noise Influence Area due to personal preferences of property owners, providing educational materials for existing and future

property owners and residents can help to alert buyers on the potential for noise impacts in areas close to Dyess AFB.

Dyess AFB Vertical Obstructions Influence Area (Figure 15)

The purpose of the Vertical Obstructions Influence Area is to monitor and recommend the height of all structures and buildings within the area defined by FAA guidance and Air Force AICUZ instructions known as imaginary surfaces. The imaginary surfaces are a 3-D geographic area comprising approach and departure airspace corridors and safety buffers. Vertical obstruction heights are a major concern for flight operations and training due to the potential for a structure to extend into navigable airspace, which could impede safe flight operations and put both pilots and citizens on the ground at risk of an aircraft mishap. Vertical obstructions that can affect flight safety include, but are not limited to, cell towers, power lines, wind turbines, buildings, and trees, depending on their distance from the runway or location within flight paths. The imaginary surfaces are explained in more detail in Chapter 3, Military Profile in the JLUS Background Report.



Legend

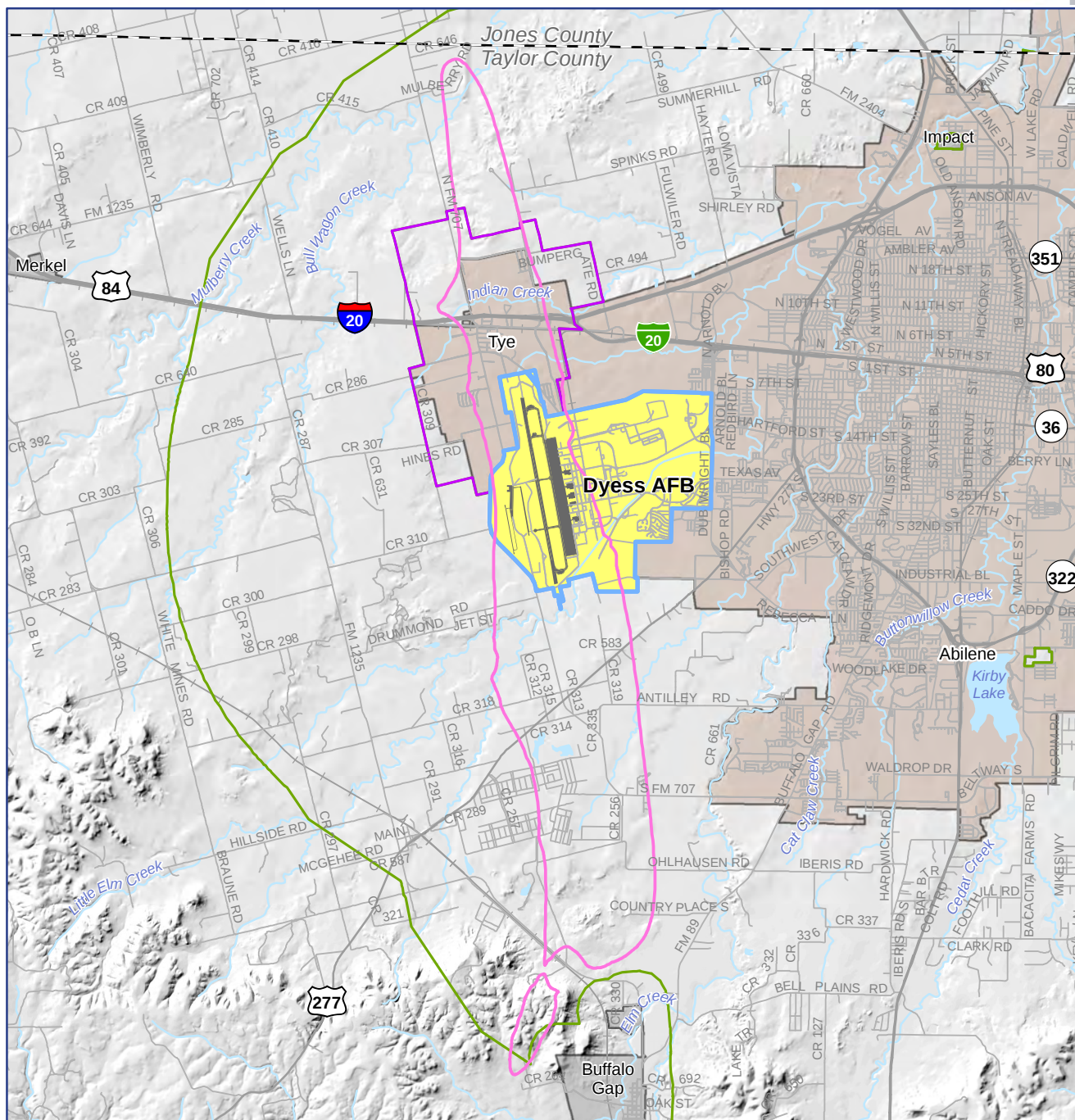
- BASH Influence Area
- Dyess Air Force Base
- County
- Community Covered by JLUS
- Tye Extraterritorial Jurisdiction
- Abilene Extraterritorial Jurisdiction
- Other Community
- ~ Interstate
- ~ Highway
- ~ Local Road
- ~ Railroad
- ~ Stream / River
- Runway / Airfield

Source: Matrix Design Group, 2017.



0 1 2 Miles

Figure 13
Dyess AFB BASH Influence Area



Legend

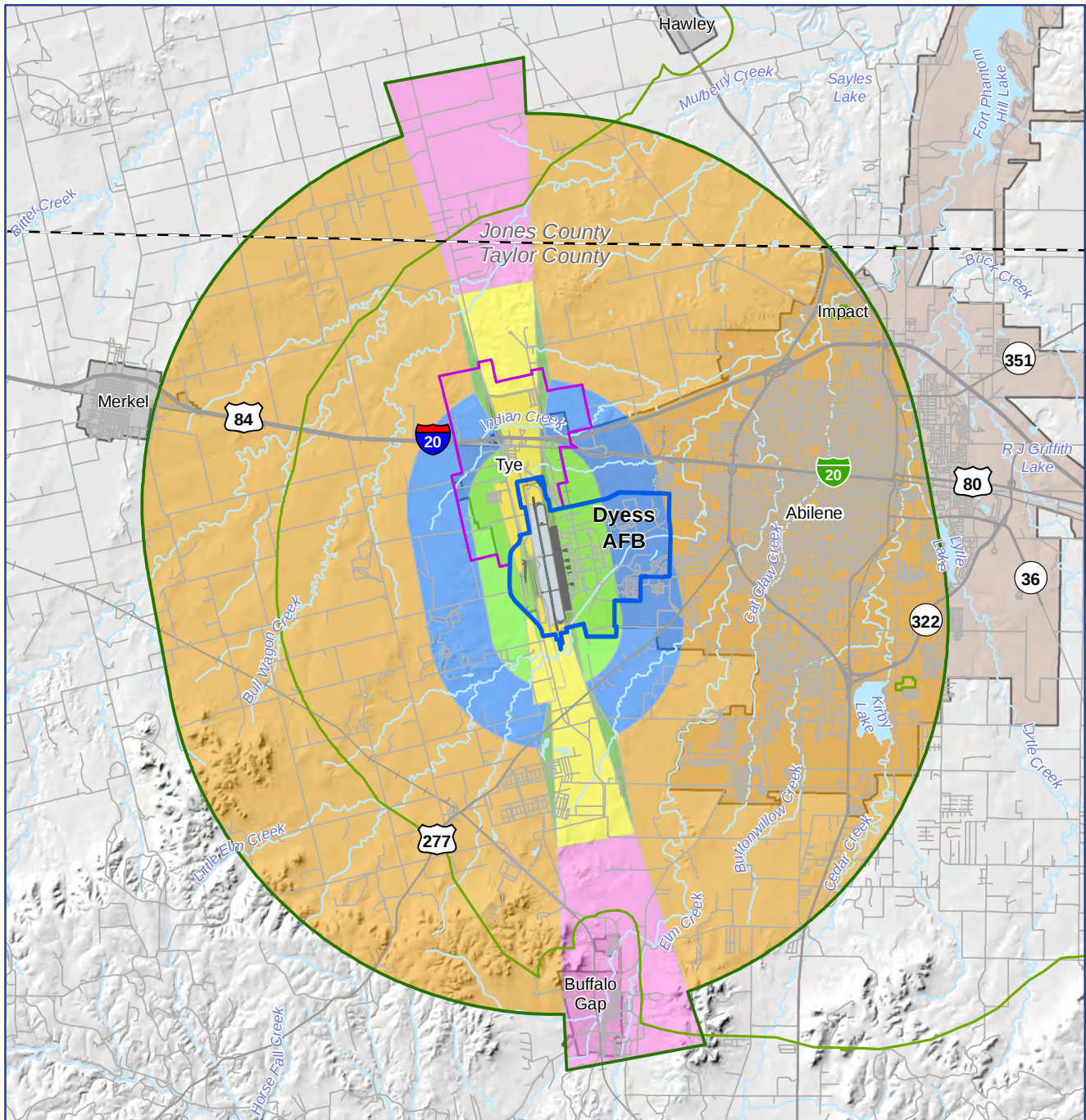
- | | | | |
|-----------------------------------|---------------------------------------|-------------------|----------------|
| Noise Influence Area | Dyess Air Force Base | Interstate | Water Body |
| County | Community Covered by JLUS | Highway | Stream / River |
| Tye Extraterritorial Jurisdiction | Abilene Extraterritorial Jurisdiction | Local Road | |
| Other Community | | Railroad | |
| | | Runway / Airfield | |

Source: Dyess AFB 2015 AICUZ, Matrix Design Group, 2017.



0 1 2 Miles

Figure 14
Dyess AFB Noise Influence Area



Legend

Vertical Obstructions Influence Area

Imaginary Surfaces

Primary Surface

Approach/Departure Clearance Surface (50:1)

Approach/Departure Clearance Surface (Horizontal)

Inner Horizontal Surface

Conical Surface (20:1)

Outer Horizontal Surface

Transitional Surface (7:1)

Dyess Air Force Base

County

Community Covered by JLUS

Tye Extraterritorial Jurisdiction

Abilene Extraterritorial Jurisdiction

Other Community

Interstate



Highway

Local Road

Railroad

Runway / Airfield

Water Body

Stream / River



Source: Dyess AFB 2015 AICUZ, Matrix Design Group, 2017.



0 1 2 Miles

Figure 15

Dyess AFB Vertical Obstructions Influence Area

How to Read the Implementation Plan

The strategies are designed to address the issues identified during preparation of the Dyess AFB JLUS. The purpose of each strategy is to:

- eliminate or reduce existing compatibility issues where possible,
- avoid future actions, operations, or development that would cause a compatibility issue; and
- provide for enhanced and on-going communications and collaboration.

To make the strategies easier to use, they are presented in a table format that provides the strategy and information on when and how that strategy will be implemented. The strategies are arranged to correspond with their compatibility factor. The issue within each factor is presented first to provide a linkage between the strategy and the condition it is intended to resolve or minimize. Figure 16 highlights the format and content of the strategy table. The following paragraphs provide an overview of how to read the information presented for each strategy.

Issue or Strategy ID. The issue ID and strategy ID are unique alpha-numeric numbers that provide a reference for each specific issue and strategy. A strategy's reference number is composed of the Compatibility Issue number and this ID (e.g., COM-1A, COM-1B, etc.).

Strategy. In bold type is a title that describes the strategy. This is followed by the complete strategy statement that describes the recommended action.

Type of Strategy. This indicates the type of strategy tool that is proposed to be utilized during implementation. These may range from simple communication or educational to regulatory or acquisition of land or development rights.

Current status “stamps”. Some of the strategies have a stamp in the “Type of Strategy” column. These stamps indicate that this strategy has either been completed during the JLUS process, is in progress of being implemented, or is already on-going.



Completed Stamp. This stamp indicates this strategy was identified during the JLUS process and completed before the end of the process concluded.



In Progress Stamp. This stamp indicates this strategy has been initiated by the responsible parties indicated in the table.



On-Going Stamp. This stamp indicates this strategy is currently on-going by the responsible parties indicated in the table. In addition, this provides awareness that the responsible parties are already implementing the strategy.

Dyess AFB Influence Area. This column indicates the applicable Dyess AFB Influence Area in which the strategy should be applied, or if the strategy relates to the whole JLUS Study Area. The Dyess AFB Influence Area geographies for the Dyess AFB JLUS strategies are defined in Strategy LU-1D. Some of the strategies are designated as “General”, meaning that they do not have a specific geography associated with them.

Timeframe. This column indicates the projected timeframe to begin implementation of each strategy. The timeframes describe the year in which a strategy will be initiated or if it is an on-going action.

Short-Term	Strategy proposed for initiation in 2018 / 2019 (within a year of JLUS completion)
Mid-Term	Strategy proposed to be initiated in 2020 / 2024 (within 2-5 years of JLUS completion)
Long-Term	Strategy proposed to be initiated in 2025 or beyond (6 or more years from JLUS completion)

Responsible Party. At the right end of the table are a series of columns, one for each jurisdiction, Dyess AFB, Dyess AFB Partnership Committee, or other entity with responsibility for implementing the JLUS strategies. If an entity has responsibility relative to implementing a strategy, a mark is shown under their name. This mark is one of two symbols that represent their role. A solid square (■) designates that the entity identified is responsible for implementing the strategy. A hollow square (□) designates that the entity plays a key supporting role, but is not directly responsible for implementation. The responsible parties are identified by their name or assigned acronym in the heading at the top of each page. There is also an “Other” column in the table. This column is for parties that are not primary JLUS Partners, but may play a role in the implementation of the respective strategy. Parties identified as responsible or supporting in this column are identified by name at the bottom of the strategy.

Figure 16 provides a visual guide on how to read the Implementation Plan. The Implementation Plan is provided in Table 3, organized alphabetically by compatibility factor.

Figure 16. How to Read the Implementation Plan

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
COM-1C	Develop a GIS web-based portal The City of Abilene in collaboration with the Dyess AFB Partnership Committee, and relevant federal, state, and local land management agencies should work collaboratively to develop a publicly accessible and interactive GIS web-based portal to share GIS data, e.g., military footprints, existing land use, zoning, and other pertinent JLUS-relevant GIS data, to promote enhanced, long-range, and coordinated compatibility planning. Other Partners: Federal and state land management agencies	Communication / Coordination	General	Mid	☐	☒	☐	☐	☐	☐

Issue or Strategy ID Number: Alpha-numeric identifier used for reference.

Strategy: Description of the strategy.

Type of Strategy: The type of strategy tool that is proposed.

Influence Area: The Dyess AFB Influence Area in which each strategy applies.

Timeframe: Year in which each strategy should be initiated.

- Short-term (2018 / 2019)
- Mid-term (2020 / 2024)
- Long-term (2025 and beyond)
- On-going

Responsible Party: The primary and partner responsible agencies. For example, the ■ denotes a primary agency who will take the lead in implementation. The □ denotes a partner agency who will assist the primary agency in implementation.

Entities included as "Other" are identified at the bottom of the strategy box.

Table 3. Dyess AFB JLUS Implementation Plan

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
ANTI-TERRORISM / FORCE PROTECTION (AT)										
AT-1	Rister Park's proximity to Dyess AFB Rister Park in the City of Tye is adjacent to Dyess AFB's northwestern boundary and allows visitors to view into the base and observe aircraft on the runway.									
AT-1A	Strategically located screening to protect on-installation assets Dyess AFB should prepare a strategic viewshed analysis to prioritize sensitive facilities / operations and associated critical view areas. Once these are identified, Dyess AFB should explore ways to mitigate views of sensitive operations or equipment. Based on cost, appropriate DOD funding sources should be identified to implement screening.	Base Planning	General	Mid				☒	☐	
AT-1B	"Eyes" on Dyess AFB Program The cities of Abilene and Tye and Taylor County should develop and implement the Air Force Eagle Eyes Program as a community-driven citizen vigilance program with Dyess AFB to continue and improve upon existing citizen vigilance programs and encourage reporting suspicious activity near Dyess AFB to ensure the security of the base. This includes developing an Eagle Eyes Public Awareness Plan and Implementation Plan, identifying notification processes, developing educational components, having readily available contact information for a dedicated point of contact at Dyess AFB to receive calls and information. This could also include a social media component.	Communication / Coordination	General	On-going	☒	☒	☒	☒	☐	
AT-1C	Signage at Rister Park The City of Tye should work with Dyess AFB to develop signage to place at Rister Park to advertise the Eagle Eyes program and that visitors to the park are discouraged from photographing activities at Dyess AFB.	Communication / Coordination	General	Short			☒	☐	☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
AT-1D	Assess the feasibility of relocating Rister Park Dyess AFB partners should work with the City of Tye to assess the feasibility of relocating Rister Park to a location that would not pose security concerns for the Dyess AFB and explore opportunities to assist the city with park relocation efforts if it is feasible.	Acquisition	General	Long	☐	☐	☒	☐	☐	
AT-2	Terrorism coordination with local communities Local law enforcement officers have expressed concern with a lack of communication and coordination from Dyess AFB on potential terrorist threats.									
AT-2A	Review memorandum of agreements between Dyess AFB and local communities Dyess AFB Security Forces should continue to utilize memorandums of agreement with local law enforcement agencies to establish protocols and procedures to proactively communicate information on security concerns or potential threat activity.	Memorandum of Agreement	General	Short	☒	☒	☒	☒	☐	
AT-2B	Continue quarterly security working group meetings Dyess AFB should continue to host a quarterly security working group (Threat Working Group) to coordinate with local law enforcement agencies and discuss security concerns. Ensure topics are developed to address issues and capture best practices from both military and civilian law enforcement perspective. Leverage best practices from local, state, Air Force, other federal agencies.	Communication / Coordination	General	On-going	☒	☒	☒	☒	☐	

ON-GOING

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
BIOLOGICAL RESOURCES (BIO)										
BIO-1	Texas horned lizard The Texas horned lizard is a state threatened species that has been known to live in the JLUS Study Area. Increased populations of this species on Dyess AFB property could result in certain restrictions to base operations, dependent upon the location of the populations.									
BIO-1A	Protect environmentally-sensitive land with the Readiness and Environmental Protection Integration (REPI) program The JLUS Partners and regional conservation groups should work with Dyess AFB and willing landowners to apply for REPI funding to safeguard mission capability and protect known or important habitat within areas adjacent to Dyess AFB, particularly within accident potential zones. Other Partners: Regional conservation groups	Acquisition / Easement	General	Long	☐	☐	☐	☒	☐	☐
BIO-1B	Coordinate the protection and conservation of sensitive species Dyess AFB should work with USFWS and Texas Parks and Wildlife Department regarding the management of natural resources and areas suitable for sensitive species to ensure that military training operations are unimpeded and safety is maintained. Emphasis should be placed on habitat loss in the region to ensure that Dyess AFB is not unduly burdened with habitat protection efforts due to habitat destruction or fragmentation elsewhere in the region. Other Partners: USFWS, Texas Parks and Wildlife Department	Communication / Coordination	General	On-going				☒	☐	☐

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
COMMUNICATION / COORDINATION (COM)										
COM-1	Limited formal communication between Dyess AFB and local communities Dyess AFB does not have as strong of a communication link with the City of Tye and Taylor County as it does with the City of Abilene. Dyess AFB has minimal, and no formal, communication with property owners who live or own property in the noise contours and safety zones, or adjacent to the base. Additionally, when Dyess AFB contacts local media about abnormal mission activities, they do not always contact staff and elected / appointed officials in Abilene, Tye and Taylor County.									
COM-1A	Establish a Dyess AFB Partnership Committee Following completion of the JLUS Report a Dyess AFB Partnership Committee should be established to maintain efficient and effective communication and coordination among the JLUS Partners, oversee the implementation of JLUS recommendations, and enhance long-term coordination on military compatibility issues. This committee could mirror the JLUS Technical Advisory Committee or Policy Committee. The Dyess AFB Partnership Committee should meet on a regular basis as agreed upon by the Committee. Membership on the Committee must include representation from the affected property owners. To continue the momentum produced through the JLUS process, it is recommended that the City of Abilene be the lead agency on developing and maintaining the Dyess AFB Partnership Committee. The Committee should review JLUS recommendations and implementation tracking as well as emerging issues from either the community perspective or from the Dyess AFB Encroachment Management Team to ensure long term military operational utility and compatibility as missions evolve. Other Partners: Property Owners, Abilene Chamber of Commerce, Abilene Metropolitan Planning Organization, West Central Texas Council of Governments	Communication / Coordination	General	Short	☐	☒	☐	☐	☐	☐

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
COM-1B	Develop a charter for the Dyess AFB Partnership Committee The JLUS Partners should develop a charter for the Dyess AFB Partnership Committee (see Strategy COM-1A) that delineates the roles and responsibilities. This charter should contain information such as: ■ Purpose of the committee, ■ Members on the committee, ■ Point of contact and contact information for each organization / partner, ■ Role in addressing compatibility issues with the base, ■ Responsibility for addressing issues, ■ When the committee meets, and ■ Triggers for coordination and communication, e.g., infrastructure planning, water resources planning, economic development, mission changes at Dyess AFB, public engagement, etc. Other Primary Partners: Property Owners, Abilene Chamber of Commerce, Abilene Metropolitan Planning Organization, West Central Texas Council of Governments	Communication / Coordination	General	Short	■	■	■	■	□	■
COM-1C	Develop a GIS web-based portal The City of Abilene in collaboration with the Dyess AFB Partnership Committee, and relevant federal, state, and local land management agencies should work collaboratively to develop a publicly accessible and interactive GIS web-based portal to share GIS data, e.g., military footprints, existing land use, zoning, and other pertinent JLUS-relevant GIS data, to promote enhanced, long-range, and coordinated compatibility planning. Other Partners: Federal and state land management agencies	Communication / Coordination	General	Mid	□	■	□	□	□	□

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
COM-1D	Develop a Dyess AFB community / military compatibility resource guide The JLUS Partners should develop a brief reference guide providing information about the various agencies in the JLUS Study Area and their respective missions, responsibilities, and geographic service areas. This guide should contain at a minimum: ■ Contact information for the agency representative that would be instrumental in cases of community-military compatibility, ■ Communication protocol for all levels of engagement, ■ Other non-governmental organizations committed to compatibility planning, and ■ Jurisdiction, private utility companies, etc. processes	Communication / Coordination	General	Short	☐	☐	☐	☐	☒	
COM-1E	Review of military planning documents Dyess AFB should provide approved public versions of key planning documents for information sharing purposes in accordance with Air Force public release criteria. Key planning documents could include the following: ■ AICUZ and other noise studies ■ Other documents as deemed appropriate by Dyess AFB for public release and review (where appropriate)	Communication / Coordination	General	On-going				☒	☐	
COM-1F	Establish internal information liaisons Each JLUS jurisdiction and Dyess AFB should identify an internal liaison within their organization responsible for coordinating with external organizations and internally disseminating information from those same external organizations to ensure that appropriate people have a shared awareness of pertinent information.	Communication / Coordination	General	Short	☒	☒	☒	☒	☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
COM-1G	Public-Public and Public-Private partnerships Dyess AFB should continue to work with state and local communities and private entities to leverage public-public and public-private partnerships through the Air Force Community Partnership Program to enhance the vitality of local economies by accomplishing mutual or shared objectives.	Communication / Coordination ON-GOING	General	On-going	☒	☒	☒	☒	☐	
COM-1H	Continue use of media methods to disseminate information Use a mix of media methods to disseminate information about Dyess AFB including generalized notice of atypical air operations (example short duration nighttime activities that are outside recurring parameters) that increase noise and air traffic, other activities that have a community impact, and a point of contact for questions or concerns. This information should be made available on the Dyess AFB website and through other jurisdiction public service announcement and media outlet methods. When possible, Dyess AFB should prepare a weekly or monthly general schedule of any special or unusual activities or night flying that may be occurring that week / month to be published in local media, as long as the information does not conflict with Operations Security principles that could result in security concerns.	Communication / Coordination ON-GOING	General	On-going	☐	☐	☐	☒	☐	
COM-1I	Maintain and continue to utilize social media Dyess AFB should continue to regularly maintain the Dyess AFB Facebook page and other social media pages to disseminate information about Dyess AFB activities and post contact information for residents or other parties if they have a question or concern.	Communication / Coordination ON-GOING	General	On-going				☒	☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
COM-1J	Good Neighbor Program Dyess AFB should conduct, on a bi-annual basis, a Good Neighbor Program where they notify adjacent property owners and community members inviting them to a Dyess AFB Neighbor Town Hall meeting to provide a platform for a two-way communication whereby the Air Force informs the neighbors of any upcoming mission changes or operations and activities that may have an impact on the surrounding community and the community can provide input and feedback.	Communication / Coordination	General	On-going				☒	☐	
COM-1K	Dyess AFB informational news briefs The Dyess AFB Public Affairs Office should develop short (1-5 minutes in duration) promotional and informational news briefs that provide an overview of the general mission and operations at Dyess AFB and some quick facts of recent or future base activities. These should be updated on a quarterly, annually, or other increment as necessary to present fresh and current information. These video spots would be used to provide information to the local communities and could be aired on local news stations, at movie theaters, or other venues.	Communication / Coordination	General	On-going	☐	☐	☐	☒	☐	
COM-1L	Include AICUZ information on community websites Update community websites to educate the public on the AICUZ program, including posting the AICUZ Citizen's Brochure, and inform the public on installation changes that could affect residents.	Communication / Coordination	General	Short	☒	☒	☒	☐	☐	
COM-1M	Links on websites Each JLUS Partner community should have a link to Dyess AFB's website on their respective websites.	Communication / Coordination	General	Short	☒	☒	☒		☐	

IN PROGRESS

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
COM-1N	Team Dyess smartphone app Dyess AFB should develop a free smartphone app that can be downloaded by anyone with a smartphone. This app should provide news alerts, general information for the public, and contact information if there are questions or concerns.	Communication / Coordination 	General	Short				☒	☐	
COM-1O	Monitor and review existing and proposed state legislation The Dyess AFB Partnership Committee, in consultation with subject matter experts, should review existing and any proposed state legislation related to land use, development, planning, and / or notification around military installations to identify if the legislation would support, and not have any detriments, to military mission sustainment, or would benefit from revisions to be more effective. This process should include benchmarking military related land use planning legislation from other states to see if there are opportunities to clarify existing language or suggest improvements that could inform compatible economic development and enhance military planning coordination. Other Primary Partners: Subject matter experts	Communication / Coordination	General	On-going				☒	☒	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
COM-2	New property buyers in the region may not be aware of Dyess AFB operations New property buyers in the region around Dyess AFB may not be aware that they are purchasing property in an area that may be impacted by Air Force operations, and how the operations may impact their quality of life, such as by the generation of noise or vibration.									
COM-2A	Amend Texas Property Code Section 5.008 for disclosure of military impact The State Legislature, with the support of Texas Association of Realtors (TAR) and others, should amend Texas Property Code Section 5.008 to incorporate language that requires disclosure of information related to military impacts, as it pertains to the property in the transaction. The Governor of Texas has signed HB 890 which requires all residential property sellers' disclosures to include the location of a military installation and that the property may be affected by high noise or an air installation compatible use zone." Ensure follow on public disclosure activities, procedures are understood by the installation. Other Primary Partners: State Legislature, TAR, Texas Real Estate Commission, Abilene Association of Realtors, other real estate advocacy groups	Legislative Tool 	Noise / Safety	Mid					☐	☒

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
COM-2B	Assess pros and cons of property sellers disclosure for military operations The community around Dyess AFB should work with local real estate groups to assess the pros and cons of requiring real estate disclosures regarding military operations for properties located near a military base. Items to assess should include why Texas does not require real estate disclosures related to military operations, potential effects on property values, how far away from Dyess AFB is appropriate to require disclosures, and language to include in the disclosure. The Governor of Texas has signed HB 890 which requires all residential property sellers' disclosures to include the location of a military installation and that the property may be affected by high noise or an air installation compatible use zone." Ensure follow on public disclosure activities, procedures are understood by the installation. Other Primary Partners: Abilene Association of Realtors, Texas Association of Realtors, Texas Real Estate Commission, other real estate advocacy groups	Legislative Tool COMPLETED	General	Short	☐	☐	☐		☐	☒
COM-2C	Real estate disclosures for subdivision of land The cities of Abilene and Tye and Taylor County should consider updating their Subdivision Regulations to require real estate disclosures when property within the APZs and noise zones is subdivided.	Zoning / Regulatory	Noise / Safety	Mid	☒	☒	☒		☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
COM-2D	Signage alerting of Dyess AFB location and operations The JLUS communities should work with Dyess AFB to develop signage to install along key roads that alert drivers they are entering an area subject to impacts from Dyess AFB and that military aircraft operations are present that may cause noise, vibrations, etc. Verbiage such as “Proud home of Dyess AFB”, “Warning: entering a high noise area” should be included on the signage. The signs may also include information that unincorporated areas within Abilene’s ETJ area are subject to airport hazard zoning within the county.	Communication / Coordination	General	Short	☒	☒	☒	☐	☐	
COM-2E	Develop a Dyess AFB awareness program Develop a Dyess AFB awareness program targeted to the property owners and homeowners to ensure they are aware of the impacts of aircraft operations in areas surrounding Dyess AFB. This should be tailored for current and future property owners and land developers. A new brochure should be developed that includes information from the existing AICUZ Citizen’s Brochure, such as the airfield safety zones and noise zones, but also be redesigned to be more user-friendly. If multiple brochures are developed, they should be substantially different in their design so that they can be distinguished as separate documents.	Communication / Coordination	General	Short				☒	☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
COM-2F	Develop a voluntary enhanced real estate disclosure statement Develop a voluntary enhanced real estate disclosure statement so that information about the missions and operations at Dyess AFB are fully disclosed at the earliest possible point in the interaction between realtor or real estate agent and a buyer or renter. The disclosure should state that the building / structure / property for sale or lease is located within the region that is the Proud Home of Dyess AFB and that aircraft operations are conducted within the region that may have an impact on the community such as noise or vibration. - Work with State Real Estate Board and local real estate representatives to develop and implement adequate language for inclusion in voluntary disclosure notices. - Local jurisdictions and Dyess AFB should work cooperatively to make available the information required for the voluntary real estate disclosure (as defined by this strategy) regarding operational issues at Dyess AFB (aircraft, noise, overflight, light and glare, etc.). The Governor of Texas has signed HB 890 which requires all residential property sellers' disclosures to include the location of a military installation and that the property may be affected by high noise or an air installation compatible use zone." Ensure follow on public disclosure activities, procedures are understood by the installation. Other Primary Partners: Abilene Association of Realtors, Texas Real Estate Commission	Communication / Coordination	Noise / Safety	Short					☐	☒

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
COM-2G	Acknowledgement of Dyess AFB operations and impacts when obtaining water permit Water service providers should amend their existing water meter application to require that an applicant within the airfield safety zones or noise zones sign an acknowledgement statement (as part of the application) that they are aware the property is within an area that may experience impacts from operations at Dyess AFB before a water meter is issued to a property. Information on Dyess AFB, such as the AICUZ Citizen's Brochure, should be provided to applicants as part of the application package. Other Partners: Water service providers	Regulatory	Noise / Safety	Short	☒	☒	☒	☐	☐	☐
COM-2H	Acknowledgement of Dyess AFB operations and impacts when obtaining septic approval The Taylor County Environmental Department should amend its existing onsite sewage facility permit application to require that an applicant within the airfield safety zones or noise zones sign an acknowledgement statement (as part of the application) that they are aware the property is within an area that may experience impacts from operations at Dyess AFB prior to issuance of an onsite sewage facility permit. Information on Dyess AFB, such as the AICUZ Citizen's Brochure, should be provided to applicants as part of the application package.	Regulatory	Noise / Safety	Short	☒	☒	☒	☐	☐	☐

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
COM-2I	Acknowledgement of Dyess AFB operations and impacts when obtaining power Power service providers should amend their existing power meter application to require that an applicant within the airfield safety zones or noise zones sign an acknowledgement statement (as part of the application) that they are aware the property is within an area that may experience impacts from operations at Dyess AFB before a power meter is issued to a property. Information on Dyess AFB, such as the AICUZ Citizen's Brochure, should be provided to applicants as part of the application package. Other Primary Partner: Power service providers	Regulatory	Noise / Safety	Short	☒	☒	☒		☐	☒
COM-2J	Acknowledgement of Dyess AFB operations and impacts on plat approval For any land within the Dyess AFB Influence Areas, the JLUS communities should include text in their platting approval forms to state that the applicant acknowledges that the land subject to the plat is within an area that may experience impacts from operations at Dyess AFB. The plat note could indicate whether the property is within the airfield safety zones, noise zones, or imaginary surfaces. Signed acknowledgement by the applicant would be required for approval of the plat.	Regulatory	Noise / Safety / Vertical Obstructions	Short	☒	☒	☒		☐	
COM-2K	Voluntary notification to renters / leasees of Dyess AFB operations and impacts Landlords who rent property or homes within the airfield safety zones and noise zones should be encouraged to voluntarily include as part of the rental / lease agreement that the property is located within an area that may be impacted by operations at Dyess AFB. Other Primary Partner: Property Owners	Communication / Coordination	Noise / Safety	Short					☐	☒

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
COM-2L	Requirements to post rental properties for military families Dyess AFB Housing Office should monitor local practices and procedures related to the owners of any properties advertised as rentals for military families that are within the airfield safety zones or noise zones disclose the potential impacts that may result from its location proximate to operational areas of Dyess AFB. Include this information in Newcomer Orientation briefing materials.	Communication / Coordination	Noise / Safety	Short				☒	☒	
COM-2M	Assess the appropriateness of avigation easements Dyess AFB should assess whether there is a need to enter into avigation easements with willing property owners. If it is determined appropriate, Dyess AFB should work with willing property owners within the airfield safety zones and noise zones to consider voluntary avigation easements either as hazard easements or nuisance easements. If purchased by Dyess AFB, these easements may require partnering with another entity.	Avigation Easement	Noise / Safety	Short				☒	☐	
COM-2N	AICUZ safety zones and noise zones on city, county, Abilene Chamber of Commerce, West Central Texas Council of Government, Abilene Metropolitan Planning Agency, and utility / water provider maps The JLUS communities and other entities should include AICUZ safety zones and noise zones, as provided from the City of Abilene's online GIS web portal, on existing land use maps, future land use maps, or services area maps, for the purpose of providing information. The inclusion on maps would not necessarily mean land under the zones are regulated per the AICUZ, but would be meant as informational to viewers of the maps. Other Primary Partners: Abilene Chamber of Commerce, West Central Texas Council of	Communication / Coordination	General	Short	☒	☒	☒		☐	☒

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
	Governments, Abilene Metropolitan Planning Organization, utility / water providers									
COM-20	AICUZ safety zone and noise zone maps on websites The JLUS communities, Dyess AFB, Abilene Chamber of Commerce, West Central Texas Council of Governments, Abilene Metropolitan Planning Organization, and any other local or regional entities identified as appropriate should post a link to the online GIS web portal maintained by the City of Abilene that shows layers such as the AICUZ safety zone and noise zone maps on their websites for informational purposes. The maps would be prepared by the City of Abilene with the assistance of Dyess AFB and may include the safety and noise zones overlaid on an aerial background. Other Primary Partners: Abilene Chamber of Commerce, West Central Texas Council of Governments, Abilene Metropolitan Planning Organization	Communication / Coordination	General	Short	☒	☒	☒	☒	☐	☒
COM-2P	City of Tye JLUS GIS support The City of Tye should develop a zoning, future land use, and other plan maps with the Dyess AFB Influence Areas in GIS and make them available on their city website.	Communication / Coordination	General	Mid		☐	☒		☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
ENERGY DEVELOPMENT (ED)										
ED-1	Wind turbine development Wind turbine development has occurred in the region around Dyess AFB, and more is anticipated in the future. Wind farm development can have several impacts on mission operations at Dyess AFB including causing vertical obstructions and degrading radar performance.									
ED-1A	Coordinate with DOD Siting Clearinghouse The DOD Siting Clearinghouse requirements and standards published in Title 32, Code of Federal Regulations, Part 211 advise and guide the process to facilitate the early submission of renewable energy project proposals to the Siting Clearinghouse for military mission compatible review. JLUS Partner jurisdictions should amend or create applicable local planning documents (e.g., comprehensive plans, renewable energy regulations) to incorporate policies and procedures for coordinating alternative energy development applications with the DOD Siting Clearinghouse. To the extent possible, coordinate renewable energy development with the DOD Siting Clearinghouse to ensure compatibility with Dyess AFB's operations. If JLUS Partner jurisdictions become aware of any wind energy development projects within their jurisdiction, they should get contact information for the developer and inform them of the need to coordinate with the DOD Siting Clearinghouse. Other Partner: Renewable energy project developers	Communication / Coordination / Comprehensive Plans / Regulatory	General	On-going	☒	☒	☒		☐	☐

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
ED-1B	Update comprehensive plans for military compatibility The JLUS jurisdictions should consider updating their comprehensive plans to incorporate military compatibility policies for renewable energy development to ensure the jurisdictions and other relevant agencies are included in potential development discussions. Dyess AFB and Abilene Regional Airport should be included in such discussions. Other Partner: Abilene Regional Airport	Comprehensive Plan	Combined Influence Area Overlay	Mid		☒	☒	☐	☐	☐
ED-1C	Identify and map locations suitable for wind energy development Identify and publish locations that are suitable for alternative energy development that do not conflict with Dyess AFB and Abilene Regional Airport operations. Develop a "Red, Yellow, Green" map that communicates and illustrates locations where specific types of wind energy development (including the potential impact of individual versus utility-scale developments) are compatible / recommended with Dyess AFB and Abilene Regional Airport operations, where types of wind energy development may be compatible / recommended depending on the project, and where types of wind energy development should be prohibited to avoid incompatibility with Dyess AFB and Abilene Regional Airport operations. The City of Abilene should serve as an advocate and stakeholder in larger alternative energy study effort sponsored by State leveraging Alternative Energy Siting Federal Funding Opportunity through the Office of Economic Adjustment. Other Primary Partner: Abilene Regional Airport	Communication / Coordination	General	Mid			☒	☐	☒	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
ED-1D	Memorandum of agreement with wind industry Dyess AFB / the Air Force should consider developing a memorandum of agreement (MOA) with the regional wind industry / wind energy developers to establish mutually-agreed upon terms to develop future wind energy generation facilities that minimize impacts on Dyess AFB operations. Dyess AFB should contact the Department of the Navy, Naval Air Station Corpus Christi, and / or Naval Air Station Kingsville to discuss details on their recent MOA with wind developers. The City of Abilene should serve as an advocate with the Texas Commander's Council to consider a larger regional/state-wide alternative energy study effort sponsored by State leveraging Alternative Energy Siting Federal Funding Opportunity through the Office of Economic Adjustment. Other Primary Partners: Renewable energy project developers, Texas Commander's Council	Memorandum of Agreement	General	Short				☒	☐	☒
ED-1E	Wind energy zoning in radar viewshed The City of Abilene should consider zoning regulations for wind energy development in the radar viewshed for Abilene Regional Airport and Dyess AFB, as authorized per Local Government Code Chapter 241.	Zoning / Regulatory	General	Mid		☒		☐	☐	☐
ED-1F	Endangered species study triggers Dyess AFB should work with the Texas Parks and Wildlife Department (TPWD) so that when an endangered species study is conducted as part of a proposed wind energy development project within 30 miles of Dyess AFB, TPWD will alert Dyess AFB of the proposed project. Other Primary Partner: TPWD	Communication / Coordination	General	On-going				☐	☐	☒

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
ED-1G	Adherence to adopted Senate Bill 277 requirements regarding wind energy The JLUS Partner communities should ensure that they follow the requirements of the newly signed Senate Bill 277 legislation, effective September 1, 2017, relating to the eligibility of certain property for certain ad valorem tax incentives relating to wind-powered energy devices within 25 nautical miles of Dyess AFB.	Legislative Initiatives 	General	On-Going	☒	☒	☒		☐	
ED-1H	Public education materials on Senate Bill 277 The Dyess AFB Partnership Committee should develop an educational flyer or packet describing the outcome of Senate Bill 277 and how it relates to future wind energy development in the vicinity of military installations. This should include some general information on wind energy compatibility concerns with Dyess AFB operations. This material can be used to educate the public and future wind energy developers.	Communication / Coordination	General	Short					☒	
ED-2	Solar energy development While there is currently no major solar development in the region around Dyess AFB, future solar farms could be built in the region. Depending on the location and types of materials used for solar farm construction, this could have impacts on aircraft operations.									
ED-2A	Coordination on solar energy development The City of Abilene should serve as an advocate and stakeholder in larger alternative energy study effort sponsored by State leveraging Alternative Energy Siting Federal Funding Opportunity through the Office of Economic Adjustment. Other Primary Partner: Solar energy developers	Communication / Coordination	General	On-going		☒		☐	☐	☐

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
ED-2B	Identify and map locations suitable for solar energy development Identify and publish locations that are suitable for alternative energy development that do not conflict with Dyess AFB or Abilene Regional Airport operations. Develop a "Red, Yellow, Green" map that communicates and illustrates locations where specific types of solar energy development (including the potential impact of individual versus utility-scale developments) are compatible / recommended with Dyess AFB and Abilene Regional Airport operations, where types of solar energy development may be compatible / recommended depending on the project, and where types of solar energy development should be prohibited to avoid incompatibility with Dyess AFB and Abilene Regional Airport operations. Other Primary Partner: Abilene Regional Airport	Communication / Coordination	General	Mid				☒	☐	☒
ED-2C	Develop solar siting guidelines Develop guidelines for proper siting and use of appropriate solar technologies near airfields, flight corridors, and beneath military airspace that include: ■ Updating zoning ordinances to specify non-reflective panels for non-residential applications and ■ Requiring timely review and coordination by the Air Force prior to permit approval. There should be a differentiation in regulations between residential uses and utility-scale facilities, so as to not over-regulate individual residential solar panels.	Building Codes / Construction Standards	General	Mid		☒	☒		☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
HOUSING AVAILABILITY (HA)										
HA-1	Housing rental market does not meet the needs of Dyess AFB The housing rental market in the communities around Dyess AFB does not have an adequate amount of available and appropriate residential properties to meet the needs of the current mission and potential future growth.									
HA-1A	Inform communities about Dyess AFB housing services Dyess AFB should work with the local communities to provide macro-level data on where Dyess AFB personnel live off-installation, and work to communicate housing needs and preferences of military personnel living off-installation. Other Partner: Local Realtors, Realtor Associations	Communication / Coordination	General	On-going	☐	☐	☐	☒	☐	☐
HA-1B	Continue to coordinate Dyess AFB housing needs Dyess AFB should continue partnerships with local realtors, Big Country Texas Apartment Association, Abilene Board of Realtors, renters, and local planning departments to share information regarding military housing needs on a regular basis via the Dyess AFB Housing Requirements and Marketing Analysis (HRMA) report. Other Partners: Local Realtors, Realtor Associations	Communication / Coordination	General	On-going	☐	☐	☐	☒	☐	☐
HA-1C	Incorporating military housing needs in jurisdictional comprehensive plans When a jurisdiction updates its comprehensive plan, the plan should include a discussion of military housing needs and programs to address housing needs, both permanent (family and unaccompanied service members) and transient housing. As part of this effort, Dyess AFB will provide jurisdictions with current information on housing demands, amount of housing provided by the installation, generalized income, by rank, of personnel living off-base, and current distribution data on off-base personnel by zip code via the Dyess AFB HRMA report.	Comprehensive Plan	General	Mid		☒	☒	☐	☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
LAND / AIR / SEA SPACE COMPETITION (LAS)										
LAS-1	Future usage of commercial and recreational unmanned aerial systems As unmanned aerial systems become more available and popular among commercial and recreational users, they may pose safety concerns for flight operations at Dyess AFB.									
LAS-1A	Adopt ordinances regulating unmanned aircraft The JLUS Partner jurisdictions should adopt an ordinance for use of unmanned aerial systems incorporating Federal Aviation Administration rules for recreational, commercial, and other users to establish and enforce rules and regulations of unauthorized unmanned aerial systems usage including the issuance of fines for offenders. Working with Dyess AFB and Abilene Regional Airport, establish areas where such systems may and may not be permissible due to their potential impacts to flight operations. New guidance on overflight of installations and their rules of engagement should be publicized in local community web pages and language adopted to restrict overflight. Other Partners: Federal Aviation Administration, Abilene Regional Airport	Zoning / Regulatory	General	Mid		☒	☒	☐	☐	☐

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
LAS-1B	Develop information on usage Dyess AFB and Abilene Regional Airport should work with the FAA to develop a public information packet on proper usage of unmanned aerial systems near Dyess AFB and Abilene Regional Airport to distribute to local communities. The educational materials should include contact information at Dyess AFB and Abilene Regional Airport for coordinating unmanned aerial systems flights within five miles of the airports. Civilian operation of unmanned aerial systems within five miles of the airports should only be allowed if prior coordination and approval is given from Abilene Regional Airport and Dyess AFB. Key coordination includes communication, sighting, coordinated response and agreed upon rules of engagement between jurisdictions and law enforcement agencies. Other Primary Partners: Federal Aviation Administration, Abilene Regional Airport	Communication / Coordination	General	On-going				☒	☐	☒
LAS-1C	Website information on unmanned aerial systems Update the Dyess AFB and jurisdiction websites with information on requirements for unmanned aerial systems in the region, including FAA regulations and any local ordinances that may be adopted in the future.	Communication / Coordination	General	On-going	☒	☒	☒	☒	☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
LAS-1D	Create a Drone Hazard Plan Dyess AFB should work with the JLUS Partner jurisdictions and Abilene Regional Airport to develop a Drone Hazard Plan. The plan would identify areas surrounding Dyess AFB and Abilene Regional Airport where unmanned aerial system operations could be detrimental to aircraft operations and illustrate these areas on a Drone Hazard Map. The Plan may also identify Drone Fly Zones where recreational drone operations would generally be allowed, unless they need to be closed for critical aircraft operations. The Plan may include conditions where unmanned aerial systems may be authorized to operate in Drone Hazard areas if prior coordination and approval from Dyess AFB or Abilene Regional Airport is obtained.	Zoning / Regulatory	General	Mid		☒	☒	☐	☐	
LAS-1E	Advertise FAA B4UFLY app The JLUS Partner jurisdictions should advertise the FAA B4UFLY app to inform the public of the app and that unmanned aerial system operations should not occur within five miles of Dyess AFB and Abilene Regional Airport.	Communication / Coordination	General	On-going		☒	☒	☒	☐	
LAS-2	Local private aircraft operating near Dyess AFB Due to the location of pipelines and agricultural uses in the region around Dyess AFB, private aircraft such as surveyors and crop dusters sometimes fly near the base. Although these aircraft are required to contact the Dyess AFB control tower, this does not always occur, which presents safety concerns between aircraft.									
LAS-2A	Implement scheduling coordination Dyess AFB should implement scheduling coordination procedures to de-conflict operations and accommodate access by local farming interests when they need to fly in or through Dyess AFB operational areas. Other Partners: Crop Dusters, Pipeline Surveyors	Communication / Coordination	General	On-going				☒	☐	☒

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
LAND USE (LU)										
LU-1	Incompatible / not recommended land uses in Tye There are existing incompatible / not recommended land uses within the City of Tye based on the Dyess AFB AICUZ and many of Tye's ordinances are outdated and do not support compatible / recommended development per the Dyess AFB AICUZ recommendations. There also is a potential for incompatible / not recommended development along Interstate 20.									
LU-1A	Update Tye Comprehensive Plan The City of Tye should update its Comprehensive Plan to incorporate the Dyess AFB AICUZ recommended land uses or a suitable alternative for future land use in the safety zones.	Comprehensive Plan	Safety	Mid			☒		☐	
LU-1B	Update Tye zoning regulations The City of Tye should consider updating the zoning map and zoning regulations to be consistent with any changes or updates that may have occurred to the Future Land Use Plan / Comprehensive Plan as part of Strategy LU-1A and to be consistent with the Dyess AFB AICUZ recommendations to the extent that the changes maintain their established community character. Any updates would need to be agreed upon by all stakeholders, including residents, and adopted through the established zoning amendment process. Any nonconformities should be grandfathered so that they can be re-established if they're substantially damaged or destroyed.	Zoning / Regulatory	Safety	Mid			☒		☐	
LU-1C	Recommend deed notifications All subdivisions, land divisions, and other discretionary actions within a clear zone or accident potential zone, as defined by Dyess AFB, should be recommended to file a deed notification that identifies the property's location within this area and describes the area of the property located within the clear zone or accident potential zone. The notice should state that the property is subject to operational impacts associated with flight operations at Dyess AFB. Other Partners: Developers	Communication / Coordination	Safety	Mid			☒		☐	☐

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
LU-1D	Define and establish Dyess AFB Influence Areas Create a Dyess AFB Combined Influence Area Overlay containing Dyess AFB Influence Areas that reflect the types and intensity of compatibility issues. The Dyess AFB Combined Influence Area Overlay is the collective geographic area of all of the Dyess AFB Influence Areas. The Dyess AFB Influence Areas should be used by local jurisdictions to identify areas where specific compatibility issues are more likely to occur. These Influence Areas will not establish regulatory requirements but are meant to provide education for future land planning decisions based on the likely location of Dyess AFB operational impacts, and are used to identify where certain recommendations from this JLUS will apply. Implementation of the Dyess AFB Combined Influence Area Overlay and associated strategies for these zones will: ■ Create a broader framework for making sound planning decisions around military airfields ■ More accurately identify areas that can affect or be affected by military missions ■ Protect the public's health, safety, and welfare ■ Protect the military missions ■ Identify a compatible / recommended mix of land uses for consideration ■ Promote an orderly transition and rational organization of land use around military airfields The Dyess AFB Influence Areas are defined as follows: ■ Dyess AFB Safety Influence Area – Includes the Clear Zone (CZ) and Accident Potential Zones (APZs) I and II ■ Dyess AFB Bird / Wildlife Aircraft Strike Hazard (BASH) Influence Area – Includes an area within five miles of the air operations	Communication / Coordination / Comprehensive Plan / Regulatory	Combined Influence Area Overlay	Mid	☒	☒	☒	☐	☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
LU-1D (cont'd)	area at Dyess AFB, an area where the majority of bird strikes are statistically likely to occur ■ Dyess AFB Noise Influence Area – Includes areas or districts impacted aviation noise as informed by the Dyess AFB AICUZ Study ■ Dyess AFB Vertical Obstruction Influence Area – Includes land under the imaginary surfaces for the runway at Dyess AFB ■ Dyess AFB Combined Influence Area Overlay – This comprises the outermost boundary of all the Dyess AFB Influence Areas ■ General – This has no geographic area associated with it, but is included for general strategies									
LU-1E	Maintenance and Update of Dyess AFB Influence Areas Dyess AFB should provide updated information to the Dyess AFB Partnership Committee (see Strategy COM-1A) when changes in operations or circumstances result in the need to update or modify one of the Dyess AFB Influence Area boundaries. The Dyess AFB Partnership Committee will be responsible for making a recommendation to Partnership Committee members to incorporate these changes into appropriate policies, plans and regulations. Any proposed changes will go through the normal public process for review and comment prior to the adoption of any final decisions.	Communication / Coordination Comprehensive Plan / Regulatory	Combined Influence Area Overlay	On-going		■	■	□	□	
LU-1F	Prepare and execute a formal notification MOU for development proposals JLUS Partners should establish a MOU to formalize development notification processes among the JLUS Partner jurisdictions and Dyess AFB including the stage in the development coordination process timeline where a formal response is requested by the jurisdiction from Dyess AFB if they have any comments.	Memorandum of Understanding	General	Short		■	■	■	□	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
LU-1G	Economic development marketing Dyess AFB should work with the Tye Economic Development Corporation, Tye Industrial Development Corporation, Abilene Chamber of Commerce, and other regional economic development organizations to develop economic development marketing guidelines that identify the type of industries that are compatible / recommended with Dyess AFB mission, type of industries that are incompatible / not recommended with the military mission and the geography of these areas. This may be used by the Chamber of Commerce to market to and attract appropriate businesses and industries. Other Primary Partners: Abilene Chamber of Commerce, Tye Economic Development Corporation, Tye Industrial Development Corporation, Development Corporation of Abilene, West Central Texas Council of Governments Development District	Communication / Coordination	General	Short				☒	☒	☒
LU-1H	Purchase of property or easements Dyess AFB, the Air Force, or the City of Tye should consider purchasing property or easements from willing owners of land that has incompatible / not recommended use or has a potential to be developed with an incompatible / not recommended use. Strategies and in depth analysis and prioritization should include easements, partnerships with conservation agencies, leveraging DOD Readiness and Environmental Protection Integration (REPI) program.	Acquisition	Safety	Long			☒	☒	☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
LU-11	Dyess AFB staff and Dyess AFB Partnership Committee representative on local planning and zoning commissions Invite a representative from Dyess AFB and from the Dyess AFB Partnership Committee to serve as ex-officio members on each of the JLUS jurisdiction planning and zoning commissions to allow for Dyess AFB to provide comments on proposed developments that may impact their mission. Dyess AFB and Dyess AFB Partnership Committee representatives shall only provide comments for technical consideration on compatibility impacts and will not make any recommendation on the final land use decision. These positions should be formalized through a resolution or an MOU.	Communication / Coordination	General	Short		☒	☒	☐	☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
LU-1J	Incorporate Dyess AFB as one of the agencies that review pre-development applications / proposals In accordance with the provisions allowed in House Bill 2919, establish an MOU between local jurisdictions and Dyess AFB to formalize a process that provides Dyess AFB with copies of certain types of development proposals, rezoning, and other land use or regulation changes for land located within the Dyess AFB Influence Areas (see Strategy LU-1D) for review and comment. Such review periods shall conform to existing community review periods and / or statutory requirements. This supports a proactive approach for identifying potential conflicts early in the proposed development review process. The process of formalizing Dyess AFB review and comment should include: ■ Definition of project types that require review ■ Definition of project types that require military participation at pre-application meetings ■ Identification of the points of contact for all coordination ■ Establishing a formal procedure for requesting and receiving comments ■ Establishing a standard timeline for responses, keeping in mind mandated review time periods as specified by state law and local procedures ■ Providing notice to Dyess AFB on all public hearings for projects requiring review Procedures should be reviewed annually and updated as appropriate by the Dyess AFB Partnership Committee (see Strategy COM-1A).	Communication / Coordination	General	Short	☒	☒	☒	☐	☐	
For other Strategies that address this issue see Strategies COM-2A through COM-2P.										

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
LU-2	Incompatible / not recommended land uses in Abilene's extraterritorial jurisdiction There are existing incompatible / not recommended land uses within Abilene's extraterritorial jurisdiction (ETJ) based on the Dyess AFB AICUZ.									
LU-2A	Update Abilene Comprehensive Plan The City of Abilene should update its Comprehensive Plan to incorporate goals and policies to support the Airport Zoning Ordinance.	Comprehensive Plan	Safety	Mid		☒			☐	
LU-2B	Update Abilene zoning regulations The City of Abilene should form a subcommittee of the Dyess AFB Partnership Committee to evaluate and consider updating its Airport Zoning Regulations to be more concise and provide a wider variety of land uses. During this evaluation, the subcommittee should evaluate and consider if any appropriate zoning regulations could be revised within the safety zones. Any updates should be the product of a participatory process involving all interested parties, including residents within the unincorporated ETJ, to the maximum extent practicable, and enacted through the established zoning amendment process. Any nonconformities should be grandfathered so that they can be re-established if they're substantially damaged or destroyed.	Zoning / Regulatory	Safety	Mid	☐	☒		☐	☐	
LU-2C	Purchase of property or easements Dyess AFB, the Air Force, or the City of Abilene should consider purchasing property or easements from willing land owners of land that has incompatible / not recommended use per the AICUZ recommendations or has a potential to be developed with an incompatible / not recommended use.	Acquisition	Safety	Long		☒		☒	☐	
For other Strategies that address this issue see Strategies COM-2A through COM-2P, LU-1C, LU-1D, LU-1E, LU-1F, and LU-1I.										

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
LU-3	Incompatible / not recommended land uses in Taylor County There are existing incompatible / not recommended land uses within Taylor County, partially resulting from properties being platted without County approval.									
LU-3A	Educate developers filing development or platting applications The Taylor County Clerk, working with the cities of Abilene and Tye, should develop educational material packets and checklists for developers and property owners who subdivide or develop their land or so that they know exactly what forms and materials are needed and can prepare a complete and accurate platting or development application package to submit to the County Clerk for review and approval. It will be the responsibility of the County Clerk to verify all information is accurate and complete before approving an application.	Communication / Coordination	General	Short	☒	☐	☐		☐	
For other Strategies that address this issue see Strategies COM-2A through COM-2P, LU-1C, LU-1D, LU-1E, LU-1F, and LU-1I.										
LU-4	Misunderstanding of the City of Abilene's extraterritorial jurisdiction A city's ETJ allows the city to extend its regulatory influence outside of the city limits into a designated portion of unincorporated county land. Some property owners or residents living in Abilene's ETJ may not be aware that they are in an area where land use can be regulated by the City.									
LU-4A	ETJ signage The City of Abilene and Taylor County should develop signage to place along roads to notify the public that they are entering the City of Abilene's ETJ and the city has some land use authority within the unincorporated land. This could be simple text such as, "This is a zoned county" to provide a quick acknowledgement to passersby.	Communication / Coordination	Combined Influence Area Overlay	Short	☒	☒			☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
LU-5	No Tye building inspector The City of Tye does not have financial resources to employ a full-time building inspector. This can result in potential incompatible / not recommended land use development if buildings are not properly inspected and approved.									
LU-5A	Seek assistance from West Central Texas Council of Governments Tye should work with the West Central Texas Council of Governments to seek funding or staffing opportunities to employ a building inspector. Other Primary Partner: West Central Texas Council of Governments	Communication / Coordination	General	Short			☒		☐	☒
LIGHT AND GLARE (LG)										
LG-1	Red LED lighting on towers Some commercial wind farms have started to use red LED lights for nighttime identification of their locations. Red LED lights cannot always be seen by night vision goggles, causing safety concerns when pilots are flying using such devices.									
	This issue is adequately addressed through current tools. No further action needed.									
NOISE (NOI)										
NOI-1	Noise from aircraft operations The aircraft operations that occur at Dyess AFB produce noise that can be heard outside the boundaries of the base, within surrounding communities.									
For other Strategies that address this issue see Strategies COM-2A through COM-2P.										

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
NOI-2	Incompatible / not recommended residential land uses in aircraft noise zones There are existing homes located within the Dyess AFB noise zones. Many of those homes have been there for a very long time and many residents who live there accept the noise.									
NOI-2A	Develop and provide sound attenuation educational materials JLUS jurisdictions should develop and provide educational materials, either through inclusion in the adopted building codes or as a supplemental educational document, describing building techniques which can be used to achieve the recommended 45 dB DNL interior noise maximum threshold. Jurisdictions could pursue funding from DOD to produce educational materials, with other stakeholders distributing and using these materials. The materials would be educational and not mandatory requirements.	Communication / Coordination	Noise	Short		☒	☒		☐	
NOI-2B	Consider developing a voluntary sound attenuation retrofit program for residential uses Consider developing a program that provides guidance on sound attenuation standards for retrofitting existing residential and commercial facilities. The program could include information on grant opportunities available to assist property owners in retrofitting structures in noise-sensitive areas. Other funding sources for retrofitting homes should be identified and provided within the program materials. The program would be voluntary and serve to assist willing property owners wishing to upgrade their homes with resources and guidance.	Communication / Coordination	Noise	Short		☒	☒		☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
NOI-2C	Update comprehensive plans to establish provisions for discouraging, but not prohibiting mobile / manufactured homes in Dyess AFB noise zone The JLUS jurisdictions should update their comprehensive plans to establish policies for new mobile homes or manufactured homes. Such homes should be discouraged, but not prohibited in the Dyess AFB noise zones since they are not constructed with materials that can adequately mitigate for noise.	Comprehensive Plan	Noise	Mid		☒	☒		☐	
NOI-2D	Establish regulations to limit mobile / manufactured home parks and zones in Dyess AFB noise zone The JLUS jurisdictions should amend their zoning ordinances to prohibit any new mobile / manufactured home parks or zones from being developed in the Dyess AFB noise zones since mobile and manufactured homes are not built with construction materials that can adequately mitigate for noise. Existing mobile / manufactured home parks and zones should be grandfathered in as they currently exist.	Zoning / Regulatory	Noise	Mid		☒	☒		☐	
NOI-2E	Update comprehensive plans The cities of Abilene and Tye should update their comprehensive plans to incorporate the Dyess AFB AICUZ recommended land uses or a suitable alternative for future land use in the noise zones.	Comprehensive Plan	Noise	Mid		☒	☒		☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
NOI-2F	Update Abilene zoning regulations The City of Abilene should form a subcommittee of the Dyess AFB Partnership Committee to evaluate and consider updating its Airport Zoning Regulations to be more concise and provide a wider variety of land uses. During this evaluation, the subcommittee should evaluate and consider if any appropriate zoning regulations could be established within the noise zones. Any updates would need to be agreed upon by all stakeholders, including residents within the unincorporated ETJ, and adopted through the established zoning amendment process. Any nonconformities should be grandfathered so that they can be re-established if substantially damaged or destroyed.	Zoning / Regulatory	Noise	Mid	☐	☒			☐	
NOI-2G	Update Tye zoning regulations The City of Tye should update its zoning map and zoning regulations to be considered with any changes or updates that may have occurred to the future land use plan / comprehensive plan as part of Strategy NOI-2E and to be consistent with the Dyess AFB AICUZ recommendations for noise zones, or an agreed upon alternative. Any updates should be the product of a participatory process involving all interested parties, including residents and property owners, to the maximum extent practicable, and adopted through the established zoning amendment process. Any nonconformities should be grandfathered so that they can be re-established if substantially damaged or destroyed.	Zoning / Regulatory	Noise	Mid			☒		☐	
NOI-2H	Consider building code updates The City of Tye should work with property owners within the Dyess AFB noise zones to consider updates to building codes to address construction materials to achieve sound attenuation.	Building Codes	Noise	Mid			☒		☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
NOI-2I	Revise Abilene Metropolitan Planning Organization Thoroughfare Plan The Abilene Metropolitan Planning Organization should work with Dyess AFB and other local stakeholders to update its Thoroughfare Plan to reduce the amount of proposed new roadway infrastructure in the areas surrounding Dyess AFB that are within the military noise zones and safety zones, that may otherwise induce future growth in these areas. Other Primary Partner: Abilene Metropolitan Planning Organization	Capital Improvements Plan	General	Mid	☐	☒	☐	☐	☐	☒
For other Strategies that address this issue see Strategies COM-2A through COM-2P.										
PUBLIC TRESPASSING (PT)										
PT-1	Accidental trespass by motorists Motorists using GPS services to get directions to commercial amenities such as shopping, restaurants, or banks sometimes accidentally try to enter Dyess AFB without proper credentials. Certain GPS services direct users to commercial amenities that are located on-base as being the closest location.									
PT-1A	Coordinate with Google Maps and other GPS service providers Dyess AFB should coordinate with Google Maps and other GPS service providers to enhance notification to users that locations inside the perimeter of Dyess AFB are prohibited to unauthorized users and that it is unlawful to enter Dyess AFB without proper authorization.	Communication / Coordination 	General	Short				☒	☐	
PT-1B	Improved signage outside Dyess AFB Dyess AFB should work with the City of Abilene to ensure signage along roadways are adequate to prevent inadvertent entry attempted by unauthorized vehicles.	Communication / Coordination	General	Short		☒		☒	☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
ROADWAY CAPACITY (RC)										
RC-1	Congestion during peak travel times During peak times, there may be up to or more than 20 vehicles stacked up at the gate to enter Dyess AFB. This can cause delays in getting onto the base due to the time it takes to process drivers through security.									
RC-1A	Plan and budget for gate improvements Leverage Military July 2009 "Entry Control Facility Transportation Engineering Assessment" by Gannett Fleming, acting on behalf of the Military Surface Deployment and Distribution Command Transportation Engineering Agency for the purpose of identifying unfunded design study/requirements at the installation gates and provide short-term and long-term alternatives to address queuing issues.	Base Planning	General	Long				☒	☐	
RC-1B	Promote carpool programs Dyess AFB should promote and incentivize park-and-ride and carpool programs to reduce the number of vehicles entering through the gates during heavy traffic periods.	Base Planning	General	Short				☒	☐	
RC-1C	Promote alternative transportation Dyess AFB should work with the City of Abilene to reduce congestion via multimodal transportation, such as public transit, biking, or walking.	Base Planning	General	Long		☐		☒	☐	
RC-1D	Staggered work shift starts Dyess AFB should evaluate utilizing and optimizing staggered work shifts to spread out the number of personnel entering and exiting the base and reduce vehicle volumes during peak traffic times.	Base Planning	General	Mid				☒	☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
RC-1E	Bicycle facility enhancements Dyess AFB should enhance its bicycle facilities and include more bicycle options and incentives for personnel to travel to work by bike to encourage reduction of vehicles. This could include a dedicated bike lane at the gate, increased bike parking, bike share program, and a biking rewards program that provides items such as meal vouchers or other incentives.	Base Planning	General	Mid				☒	☐	
RC-2	Prohibited truck travel on Air Base Road Commercial trucks bringing materials to Dyess AFB sometimes use Air Base Road, which is incompatible with trucks because the road was not constructed to support heavy vehicles.									
RC-2A	Enforcement of citations The City of Tye Police Department should enforce fines for drivers of heavy vehicles that use Air Base Road.	Regulatory	General	On-going			☒		☐	
RC-2B	Explore Defense Access Road designation The City of Tye should work with Dyess AFB to consider the possibility of submitting a request to designate Air Base Road as a Defense Access Road. This would assist with federal funding to keep the road maintained.	Transportation Planning	General	Mid			☒	☒	☐	
RC-2C	Enhanced signage The City of Tye should develop enhanced signage at the entrance to Air Base Road alerting truck drivers that they are prohibited on Air Base Road, and directions to the correct route to get to Dyess. Signs should be tall enough and large enough to be viewed by truck drivers.	Communication / Coordination	General	Short			☒		☐	
RC-2D	Truck barriers along Air Base Road The City of Tye should consider installing truck barriers such as overhead barriers that trucks cannot pass under, or traffic calming measures into the roadway to deter truck drivers from entering Air Base Road.	Transportation Planning	General	Mid			☒		☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
SAFETY (SA)										
SA-1	Wildlife and birds cause safety hazards for aircraft Wildlife, such as coyotes and birds sometimes enter aircraft operational areas and cause safety hazards to aircraft.									
SA-1A	BASH consideration in jurisdiction or agency projects All projects sponsored by a local jurisdiction or agency within the Dyess AFB BASH Influence Area should consider bird attractants and require consultation with Dyess AFB representatives on the review and mitigation of significant direct and indirect bird attractant features such as golf course water features, detention ponds, landfills or transfer stations.	Communication / Coordination	BASH	On-going		☒	☒	☐	☐	
SA-1B	Develop and distribute BASH educational materials Dyess AFB should provide educational information to local jurisdictions, agencies and landowners in the region relative to reducing the potential for bird and wildlife attractants that may impede safe aircraft operations and outline compatible solutions and techniques to minimize conflicts.	Communication / Coordination	BASH	Short		☐	☐	☒	☐	
SA-1C	Control bird and wildlife attractants near base Dyess AFB should continue to work directly with local jurisdictions and other appropriate agencies on control of bird and wildlife attractants in the vicinity of the base and within flight paths. Other Partners: Texas Parks and Wildlife Department	Communication / Coordination Regulatory	BASH	On-going		☒	☒	☒	☐	☐
SA-1D	Identify water body design concerns for BASH Dyess AFB or JLUS Partner jurisdictions should work with resource agencies to develop designs for stormwater facilities, wetland habitat reconstruction, species habitat protection, or similar items that could attract birds to minimize BASH concerns through design.	Communication / Coordination	BASH	Mid		☐	☐	☒	☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
SA-1E	Determination of BASH-relevant species Dyess AFB should coordinate with other DOD installations, the US Fish and Wildlife Service and Texas Parks and Wildlife Department to identify certain species that pose greatest BASH risk in order to manage their presence in the region through best practices. Other Primary Partner: US Fish and Wildlife Service, Texas Parks and Wildlife Department	Communication / Coordination	General	Short				☒	☐	☒
SA-2	Development in clear zone / base property A private property owner has built a garage extension onto their home that extends into the clear zone, which is owned by Dyess AFB.									
	This issue is adequately addressed through current tools. No further action needed.									
VERTICAL OBSTRUCTIONS (VO)										
VO-1	Topography in the imaginary surfaces Topographic features (bluffs) southwest of Dyess AFB are within the imaginary surfaces. Any development on the bluffs that is within the imaginary surfaces may possibly create a vertical obstruction.									
VO-1A	Develop a 3-Dimensional Imaginary Surfaces Model Develop a 3-dimensional GIS-based model that can accurately portray the height limitations on a given property to preserve the critical airspace around the Dyess AFB airfield. This model would be based upon the imaginary surfaces and would include surrounding terrain elevations. This model could be used early in the development review process for evaluating development applications.	Communication / Coordination	Vertical Obstructions	Short				☒	☒	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
VO-2	No cell tower regulations The City of Tye and Taylor County do not currently have regulations for siting cell towers, except when a tower meets the criteria for a Part 77 review. This can potentially lead to the development of vertical obstructions within the imaginary surfaces.									
VO-2A	Incorporate FAA review documentation as requirement for tower applications Dyess AFB review of telecommunication towers is conducted as part of the Federal Aviation Administration review and determination process. Amend local planning documents to require a Determination of No Hazard to Air Navigation from the Federal Aviation Administration to be submitted with telecommunication tower development applications. Other Primary Partner: Federal Aviation Administration	Communication / Coordination Regulatory	Vertical Obstructions	On-going		☒	☒	☒	☐	☒
VO-2B	Create a cell tower siting awareness program Develop a brochure that provides information about best practices for cell tower siting to telecommunications companies and local jurisdictions. Include instructions for coordinating with Dyess AFB when considering the placement of cell towers.	Communication / Coordination	Vertical Obstructions	Mid			☒		☐	
VO-2C	Develop a “Red, Yellow, Green” Map for vertical obstruction concerns A “Red, Yellow, Green” (RYG) Map should be developed and utilized, in consultation with Dyess AFB, that identifies locations throughout the Dyess AFB Vertical Obstructions Influence Area where tall structures (with defined heights) are permissible, permissible with height restrictions, and prohibited to ensure compatibility.	Communication / Coordination	Vertical Obstructions	Mid		☒	☒	☒	☐	

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
VO-2D	Ensure Federal Aviation Regulation Part 77 compliance For all new, redeveloped or rehabilitated structures (including electrical transmission towers/lines, cellular and radio transmission towers, etc.), ensure compliance with Federal Aviation Regulation Part 77 height limit requirements to minimize vertical obstructions (e.g., buildings, telecommunications facilities, recreational facilities, energy transmission / generation towers, etc.). In addition, ensure the developments and structures are compatible / recommended with, and do not pose a safety hazard to, air operations in the region.	Regulatory	Vertical Obstructions	On-going		☒	☒		☐	
VO-2E	Require Federal Aviation Regulation Part 77 Obstruction Evaluations in zoning ordinances Abilene and Tye should update their zoning regulations to require Part 77 Obstruction Evaluations for any proposed development that meets the criteria for notice.	Zoning / Regulatory	Vertical Obstructions	Mid		☒	☒		☐	
VO-2F	FAA contact information Contact information for the regional FAA representative should be retained at the City of Abilene and City of Tye planning departments for inquiries from the public on airspace and height issue concerns. Other Primary Partner: Federal Aviation Administration	Communication / Coordination	General	Short		☒	☒		☐	☒
VIBRATION (V)										
VO-1	Vibration caused by aircraft operations Areas around Dyes AFB sometimes experience vibration from aircraft operations.									
For other Strategies that address this issue see Strategies COM-2A through COM-2P, and NOI-2A through NOI-2I.										

Issue / Strategy ID	Strategy	Type of Strategy	Dyess AFB Influence Area	Timeframe	Taylor County	City of Abilene	City of Tye	Dyess AFB	Dyess AFB Partnership Committee	Other
WATER QUALITY / QUANTITY (WQQ)										
WQQ-1	Flooding on-base A large portion of Dyess AFB lies within the 100-year flood plain and parts of the base experience flooding during heavy rains. This can impact mission operations if flooding occurs in areas such as the runway.									
WQQ-1A	Develop regional flood management plan Dyess AFB should work with the cities of Abilene and Tye, Taylor County, and other stakeholders to develop a regional flood management plan to identify: ■ Areas where the majority of flooding occurs, ■ Causes of flooding—inadequate infrastructure, upstream infrastructure, etc. ■ Procedures to prevent and manage flooding on-base, and ■ Roles and responsibility in flood management.	Base Planning	General	Mid	■	■	■	□	□	
WQQ-2	Off-base flooding During heavy rain events, water from Dyess AFB traverses across the base boundary and Airbase Road into adjacent areas within the City of Tye, causing flooding.									
For a Strategy that addresses this issue see Strategy WQQ-1A.										

Please see the next page.