

August 2015

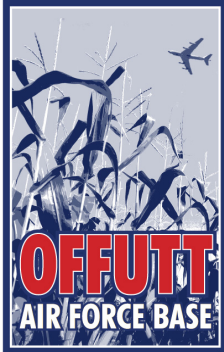


JOINT LAND
USE STUDY

This study was prepared under contract with the Metropolitan Area Planning Agency (MAPA), with financial support from the Office of Economic Adjustment, Department of Defense. The content reflects the views of MAPA and the jurisdictions, agencies and organizations participating in the JLUS program, and does not necessarily reflect the views of the Office of Economic Adjustment.



**JOINT LAND
USE STUDY**



JOINT LAND
USE STUDY

OFFUTT AIR FORCE BASE JOINT LAND USE STUDY

Prepared Under Contract With:



Metropolitan Area Planning Agency
2222 Cuming Street
Omaha, NE 68102

Prepared By:



August 2015

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JOINT LAND USE STUDY

Acknowledgements

Policy Committee

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

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- **Michael Bowman, Mayor**
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The Technical Advisory Committee (TAC) served a key role in the development of the Offutt AFB JLUS, providing the overall advisory support, review, and guidance of the study. The TAC comprised the following individuals:

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Geographic information system (GIS) data that was used to create the background of the maps in this study was obtained from the following sources: US Census Bureau, 2014; National Hydrology Dataset, 2014; Esri, 2014; and National Agriculture Imagery Program, 2014 (for aerial imagery).

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Acronyms

A

AICUZ	Air Installation Compatible Use Zone
AFB	Air Force Base
AFI	Air Force Instruction
AG	Agriculture
AGL	Above Ground Level
AHAS	Avian Hazard Advisory System
APZ	Accident Potential Zone
AQCR	Air Quality Control Regions
AT	Anti-Terrorism/Force Protection
AT/FP	Anti-Terrorism/Force Protection
ATC	Air Traffic Control
AV	Aviation Overlay District
AQ	Air Quality

B

BAH	Base Allowance for Housing
BASH	Bird / Wildlife Aircraft Strike Hazard
BGH	Heavy General Business
BGM	Metropolitan General Business
BHWG	Bird Hazard Warning Group
BIO	Biological Resources
BMPs	Best Management Practices
BNH	Heavy Neighborhood Business
BNSF	Burlington Northern Santa Fe

C

CA	Climate Adaptation
CFR	Code of Federal Regulations
CNEDC	Cass County Nebraska Economic Development Council
CO	Carbon Monoxide
COM	Communication / Coordination
cont'd	continued
CR	Cultural Resources
CSRIC	Communication Security, Reliability, and Interoperability Council
CWA	Clean Water Act
CWECS	Commercial/Utility Grade Wind Energy Conversion System
CZ	Clear Zone

D

dB	decibel
DMV	Department of Motor Vehicles
DNL	Day-Night Level
DNR	Department of Natural Resources
DOD	Department of Defense
DOE	Department of Energy
DPAA	Defense Prisoner of War / Missing in Action Accounting Agency
DSS	Dust/ Smoke/ Steam

E

EA	Environmental Assessment
ECFs	Entry Control Facilities
ED	Energy Development
EIS	Environmental Impact Assessment
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ETJ	Extraterritorial Jurisdiction

F

FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FGZ	Federal Government Zone
FLPMA	Federal Land Management and Policy Act
FONSI	Finding of No Significant Impact
FSC	Frequency Spectrum Capacity
FSI	Frequency Spectrum Impedance/ Interference
FX	Flex Space
FY	Fiscal Year

G

GC	General Commercial
GI	General Industrial
GIS	Geographic Information Systems
GO	General Office
GOEDP	Greater Omaha Economic Development Partnership

H

HA	Housing Availability
HCO	Highway 34 Corridor Overlay
HCP	Habitat Conservation Plan
HFGCS	High Frequency Global Communications System
HI	Heavy Industrial
HO	Height and Obstruction
HUD	Housing and Urban Development

I

I	Interstate
ICEMAP	Installation Complex Encroachment Management Action Plan
ICRMP	Integrated Cultural Resources Management Plan
IE	Infrastructure Extensions
ILS	Instrument Landing System
INRMP	Integrated Natural Resources Management Plan
IS	Intelligence Squadron

J

JLUS	Joint Land Use Study
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L

LAS	Land/ Air/ Sea Space Competition
LC	Limited Commercial
LEG	Legislative Initiatives
LG	Light and Glare
LH	Loess Hills Conservation Development
LLC	Limited Liability Company
LOS	Level of Service
LRAD	Long Range Acoustic Device
LU	Land Use

M

MAPA	Metropolitan Area Planning Agency
MAR	Marine Environments
MCA	Military Compatibility Area
MCAOD	Military Compatibility Area Overlay District
MOU	Memorandum of Understanding
MSA	Metropolitan Statistical Area

N

NAAQS	National Ambient Air Quality Standard
NACo	National Association of Counties
NBD	Neighborhood Business District
NDEQ	Nebraska Department of Environmental Quality
NDNR	Nebraska Department of Natural Resources
NDOR	Nebraska Department of Roads
NEANGE	Nebraska Air National Guard
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NFS	Nebraska Forest Service

NGOs	Nongovernmental Organizations
NHPA	National Historic Preservation Act
NISC	Nebraska Invasive Species Council
NLR	Noise Level Reduction
NO2	Nitrogen Dioxide
NOAA	National Oceanic and Atmospheric Administration
NOI	Noise
NPDES	National Pollutant Discharge Elimination System
NTIA	National Telecommunications and Information Administration
NVG	Night Vision Goggles
NZ	Noise Zones

O

O3	Ozone
OAC	Offutt Advisory Council
OAFCO	Offutt AFB America First Communities, LLC
OEA	Office of Economic Adjustment
OS	Open Space Conservation
OSM	Office of Spectrum Management

P

PC	Policy Committee
PM	Particulate Matter
PM10	Course Particle
PM2.5	Fine Particles
P-MR NRD	Papio-Missouri River Natural Resources District
PO	Parking Overlay
ppb	parts per billion
PT	Public Trespassing
PUD	Planned Unit Development
PV	Photovoltaic System

R

R	Residential
RC	Roadway Capacity
RCS	Recovery Credit System
RE	Residential Estates
REPI	Readiness and Environmental Protection Integration
RF	Radio Frequency
RG	General Residence
RS	Single-Family Residence

S

SA	Safety
SAC	Strategic Air Command
SCW-1	Strategic Communications Wing One
SDWA	Safe Drinking Water Act
SFS	Security Forces Squadron
SGHAT	Solar Glare Hazard Analysis Tool
SHPO	State Historic Preservation Office
SNR	Scare Natural Resources
SO2	Sulfur Dioxide
SREDC	Sarpy County Economic Development Corporation
STRATCOM	Strategic Command

T

TAC	Technical Advisory Committee
TIF	Tax Increment Financing

U

UAVs	Unmanned Aerial Vehicles
UFC	United Facilities Criteria
UP	Union Pacific
URS	URS Group, Inc.
US	United States/ United States Route
USACE	United States Army Corps of Engineers
USAHAS	United States Avian Hazard Advisory System
USFWS	United States Fish and Wildlife Service
USSTRATCOM	United States Strategic Command

V

V	Vibration
V	Village
VFR	Visual Flight Rules
VO	Vertical Obstructions

W

WECS	Wind Energy Conservation System
WQQ	Water Quality/ Quantity



JOINT LAND USE STUDY

Introduction 1.

The Offutt Air Force Base (AFB) Joint Land Use Study (JLUS) is a collaborative planning effort between the communities in Nebraska and Iowa around Offutt AFB. In Nebraska, these communities are: the cities of Bellevue, La Vista, Omaha, Papillion, and Plattsmouth, as well as Cass County, Douglas County, and Sarpy County. In Iowa, these are the cities of Council Bluffs and Glenwood, as well as Mills County and Pottawattamie County. An organized communication effort between these jurisdictions, Offutt AFB, and other stakeholder entities that own or manage land or resources in the region is needed to ensure that future growth around Offutt AFB is coordinated and compatible with military training activities.

The Offutt AFB JLUS advocates a proactive approach to encourage increased communication about decisions relating to land use regulation, conservation, and natural resource management issues affecting both the community and the military. This study seeks to avoid conflicts previously experienced between the United States (US) military and local communities in other areas of the US and throughout the world by engaging the military and local decision-makers in a collaborative planning process. The intent of the process is to establish and encourage a working relationship among military installations and their proximate communities to act as a team to prevent and/or reduce encroachment issues associated with current and future missions and local growth.

The term encroachment refers to conflicting uses of land, air, water, and other resources that may individually or cumulatively impact the military's ability to carry out its training missions. The compatibility factors considered in this JLUS are described in the Compatibility Assessment (Chapter 5 of the JLUS Report or Background Report). A set of strategies to address compatibility concerns was developed upon review of these factors and identification of issues with the communities, Offutt AFB, JLUS committees, and the public. The recommended strategies are based on a toolbox of methods used to address compatibility issues and address the use of policy, planning and zoning, coordination and communication, and outreach methods. One of the key recommendations is the formation of a JLUS Coordination Committee responsible for overseeing the implementation progress in the months and years after the JLUS is completed. The recommended strategies are outlined in more detail in Chapter 6, Implementation Plan.

What Is a Joint Land Use Study?

A JLUS is a planning process accomplished through the collaborative efforts of a comprehensive list of stakeholders in a defined study area. It is a process designed to identify and determine ways to enhance compatible land uses and growth management practices in communities close to active military installations, such as Offutt AFB. The intent of the process is to establish and foster a working relationship among a military installation and its proximate local jurisdictions to act as a team to address compatibility issues and prevent and / or reduce encroachment issues associated with achieving existing mission objectives, allowing for mission expansion (not boundary expansion) and fostering community economic development goals. Although primarily federally funded by the Department of Defense (DOD), Office of Economic Adjustment (OEA), a JLUS is produced by and for local communities. The local project management organization and sponsor for this JLUS is the Metropolitan Area Planning Agency (MAPA).

JLUS Goal

The goal of the Offutt AFB JLUS is to protect the viability of current and future training operations, while simultaneously guiding community growth, sustaining the environmental and economic health of the region, and protecting public health, safety, and welfare.

JLUS Objectives

To help meet this goal, three primary JLUS objectives were identified.

- **Understanding.** Convene community and military representatives to identify, confirm, and understand the compatibility issues in an open forum, taking into consideration both community and Offutt AFB perspectives and needs. This includes public awareness, education, and input as part of a cohesive outreach program.

- **Collaboration.** Encourage cooperative land use and resource planning by Offutt AFB and surrounding communities so that future community growth and development are compatible with the training and operational missions at Offutt AFB, while at the same time seeking ways to reduce operational impacts on adjacent lands.
- **Actions.** Provide a set of mutually supported tools, activities, and procedures (strategies) that local jurisdictions, agencies, and Offutt AFB can implement in order to avoid and reduce compatibility issues. The strategies proposed 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 strategies will help decision makers resolve compatibility issues and prioritize projects within the annual budgeting process of their respective entity/jurisdiction.

Why Prepare a Joint Land Use Study?

Collaboration and joint planning among military installations, local

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

communities, and agencies 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 incompatibility becomes 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 sustainability of local communities within the JLUS Study Area while protecting current and future operations and training missions at Offutt AFB.

Regional Economic and Local Importance

Offutt AFB is located in east-central Nebraska, 10 miles south of downtown Omaha. It is adjacent to the City of Bellevue in Sarpy County and is just west of the border of Iowa. Offutt AFB is an important economic engine in this region, which supported approximately 20,000 people in fiscal year (FY) 2013, including 5,637 military personnel, 4,699 civilians, and the remaining were military dependents. Additionally, 23,741 military retirees reside within 150 miles of Offutt AFB. In FY 2013, Offutt AFB's economic benefit to local communities was greater than \$1.3 billion. Figure 1 illustrates the total impact separated into typical economic impact categories.

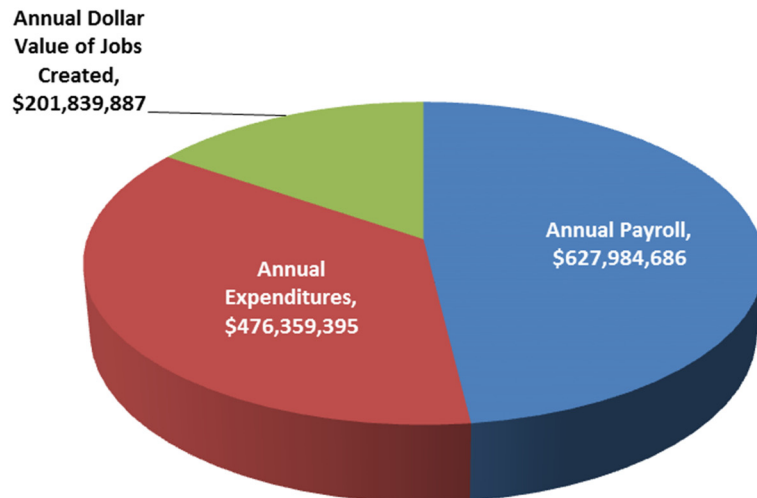


Figure 1. FY 2013 Offutt AFB Economic Impact

Source: *Offutt Air Force Base Economic Impact Analysis, 2013*

Military Strategic Importance

Aside from being a significant economic generator for the region, Offutt AFB is a strategic asset in the nation's defense. The host unit at Offutt AFB is the 55th Wing, which is the largest wing within the Air Force's Air Combat Command. Additionally, the base is home to many important associate units, including U.S. Strategic Command (USSTRATCOM) Headquarters, which is one of the DOD's nine unified commands. It is also home to the 557th Weather Wing, the Defense Prisoner of War / Missing in Action Accounting Agency, and many more tenants. The 55th Wing provides protection through intelligence, reconnaissance, surveillance and other command and control protocols, along with combat ready warfighters in time of crisis.

Another important factor of Offutt AFB is its strategic location within the center of the country. The installation's central location gives the base an advantage by being within a far enough distance from each coast, protecting the site from outside threats. In a time of national crisis Offutt AFB is utilized for presidential protection.

Local Communities Working Together

Offutt AFB contributes much more than just an economic engine. The base interacts with the community through actions both related and independent to the military. Offutt AFB hosts a variety of community events throughout the year, including base tours, holiday breakfasts/lunches, awards ceremonies, memorial ceremonies, etc.

Offutt AFB engages in many public outreach efforts to make itself a greater part of the local and regional community, including an annual Community Assessment Survey in order to contribute to the quality of life and well-being of individuals affected by the base, an adopt-a-highway program, environmental improvement programs, the annual Veteran's Day parade, the Offutt AFB Defenders Freedom Open House and Air Show, the annual Runway Run, and the Offutt AFB Honor Guard.

JLUS Partners

As highlighted in the objectives stated previously, the JLUS process was designed to create a locally relevant study that builds consensus and obtains support from the 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 or involving them early in the project is instrumental in the identification of their most important compatibility issues to address and resolve through the development of integrated strategies and measures. Stakeholders include individuals, groups, organizations, and governmental entities interested in, affected by, or affecting the outcome of the JLUS project. Stakeholders identified for the Offutt AFB JLUS included, but were not limited to:

- Local jurisdictions (cities and counties)
- DOD officials (including OEA representatives) and Offutt AFB personnel
- Local, regional, and state planning, regulatory, and land management agencies, including MAPA
- Landholding and regulatory federal agencies
- The public (including residents and landowners)
- Nongovernmental organizations (NGOs)
- Other special interest groups (including local educational institutions and school districts)

These groups of stakeholders played a critical role in the development of the Offutt AFB JLUS and Background Reports. Their input provided comprehensive, technical guidance relevant to their jurisdiction's policies, regulations, culture, and values. The JLUS stakeholder groups helped shape the numerous strategies identified in Chapter 6 of this document.

Policy Committee and Technical Advisory Committee

The development of the Offutt AFB JLUS was guided by two committees, comprising staff from cities, counties, Offutt AFB, federal and state agencies, resource agencies, local governments, and other stakeholders. The two committees are the Policy Committee (PC) and the Technical Advisory Committee (TAC).

JLUS Policy Committee. The PC consists of elected officials and decision makers from participating jurisdictions, military installation leadership, and representatives from other interested and affected agencies. 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 includes representatives from local jurisdictions, agencies, and Offutt AFB with technical expertise in one or more of the compatibility factors listed 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.



Policy Committee Meeting Number 3, January 8, 2015

Public Participation

In addition to the PC and TAC meetings, a series of 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 provided input on the proposed strategies. Each workshop included a traditional presentation and a facilitated exercise providing a “hands on,” interactive opportunity for the public to participate in the development of the plan.

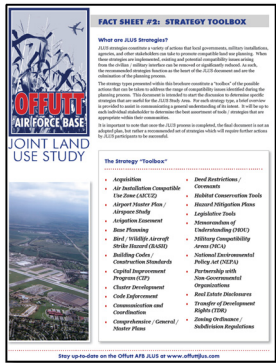


Public Workshop Number 1, January 7, 2015

Public Outreach Materials



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 25 compatibility factors that were analyzed throughout the project, and the proposed Offutt AFB JLUS Study Area. This Fact Sheet was made available at the 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 land use planning. This brochure provides an overview of the strategy types that could be applied to address compatibility issues around Offutt AFB.

JLUS Study Area

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

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 program points of contact, schedules, documents, maps, public meeting information, and a link to submit comments. The project website is located at www.offuttjlus.com.



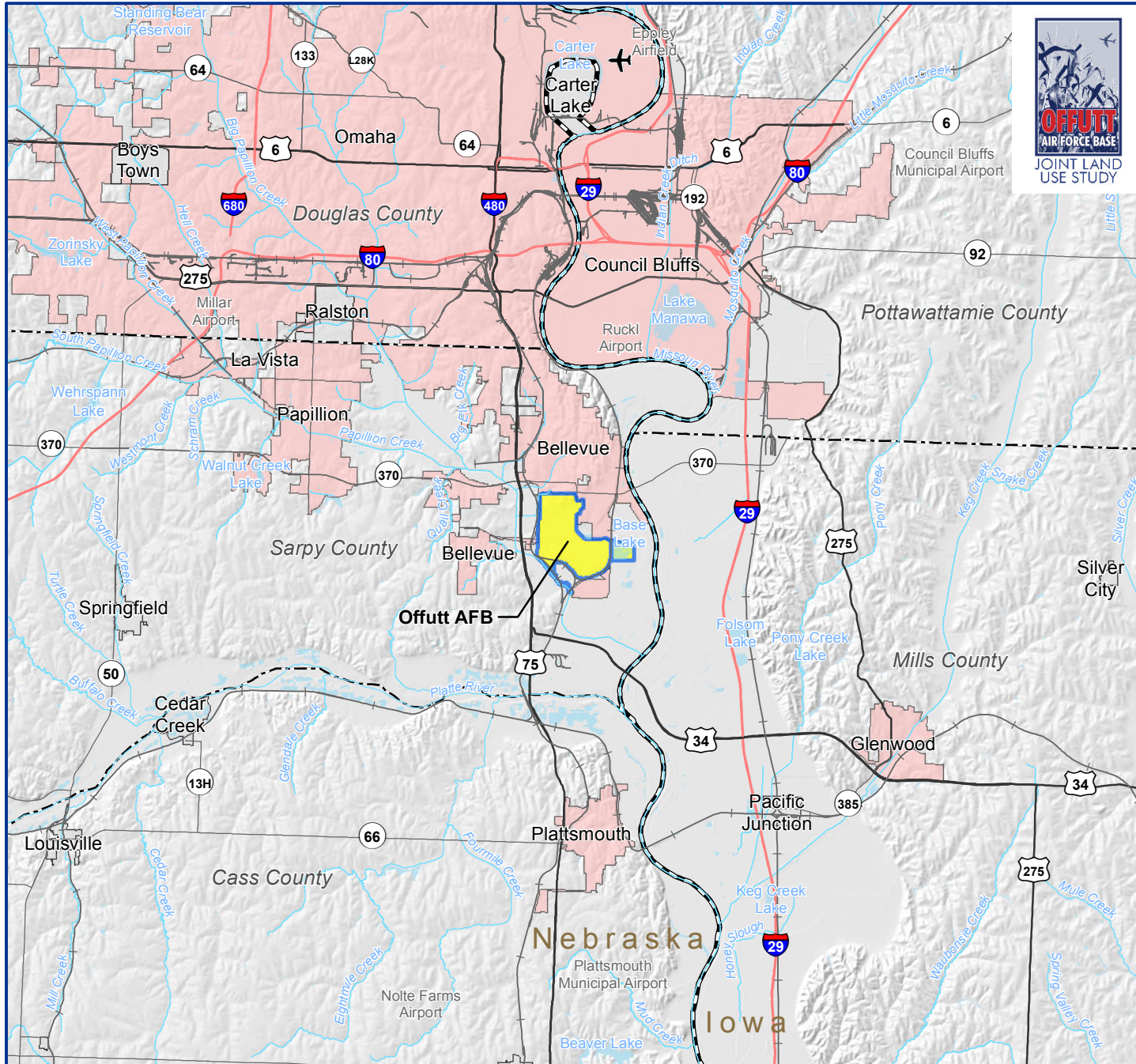
Figure 2

Offutt AFB JLUS Study Area



Legend

- Offutt Air Force Base
- State Boundary
- County Boundary
- City included in JLUS
- Other City
- Water Body
- River / Creek / Stream
- Interstate
- Federal Highway
- State Highway
- Railroad
- ✈ Eppley Airfield



Please see the next page.



JOINT LAND USE STUDY

Community Profile 2.

The study area for the Offutt AFB JLUS is centered around Offutt AFB and includes several communities around Offutt AFB, both in Nebraska and Iowa. In Nebraska, these communities are: the cities of Bellevue, La Vista, Omaha, Papillion, and Plattsmouth, as well Cass County, Douglas County, and Sarpy County. In Iowa, these are the cities of Council Bluffs and Glenwood, as well as Mills County and Pottawattamie County. An overview of the JLUS study area communities is discussed to provide a look at the civilian side and the partners who participated in the JLUS.

Study Area Growth Trends

The following section provides a profile of the Study Area's population growth, housing trends, and median home values. This information assists in setting the regional context and growth potential for the JLUS Study Area.

Population

Population data is based on the 2010 data provided by the U.S. Census. Population numbers 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 in the Offutt AFB JLUS Study Area from 2000 to 2010.

The population figures represent the permanent population in the Study Area, but do not consider the temporary population surges associated with the tourism industry and migration from seasonal employment or transient workers in the Omaha metropolitan region. Table 1 shows the 2000 and 2010 census totals and percent change in populations of jurisdictions within the JLUS Study Area.

Table 1. JLUS Study Area Population Trends, 2000-2010

Jurisdiction	2000	2010	Number Change	Percent Change
Nebraska	1,711,263	1,826,341	115,078	6.7%
Cass County	24,334	25,241	907	3.7%
City of Plattsmouth	6,887	6,502	-385	-5.6%
Douglas County	463,585	517,110	53,525	11.6%
City of Omaha	390,007	408,958	18,951	4.9%
Sarpy County	122,595	158,850	36,255	29.6%
City of Bellevue	44,382	50,137	5,755	13.0%
City of La Vista	11,699	15,758	4,059	34.7%
City of Papillion	16,363	18,894	2,531	15.5%
Iowa	2,925,324	3,046,355	121,031	4.1%
Mills County	14,547	15,059	512	3.5%
City of Glenwood	5,358	5,269	-89	-1.7%
Pottawattamie County	87,704	93,158	5,454	6.2%
City of Council Bluffs	58,268	62,230	3,962	6.8%

Sources: 2000 and 2010 U.S. Census Bureau data

Almost all jurisdictions within the JLUS Study Area saw an increase in their population levels due to the changes in once heavily agricultural land into extensions of the Omaha metropolitan region. The region’s high quality of life, low cost of living, pro-business environment and provision of public services has helped to drive this population increase.

Sarpy and Douglas counties saw the largest growth between 2000 and 2010, increasing by 29.6 percent and 11.6 percent, respectively. The completion of Highway 75 was a major contributor to this increase along with other access improvements to the counties. As indicated by the population figures in Table 1, only two communities in the Study Area saw a decline in population between the years of 2000 to 2010 – the City of Plattsmouth in Nebraska, and the City of Glenwood in Iowa. These experiences are usually due to out-migration, which occurs when populations move out of an area because of either a lack of available housing or job opportunities. Within the State of Iowa, Pottawattamie County saw the largest increase with a population change of 6.2 percent from 2000 to 2010. The City of Council Bluffs followed with an increase of 6.8 percent. Both jurisdictions growth rates are higher than that of the state, indicating that development pressures will continue to be seen in these areas.

Future Population Projections

Population projections for Nebraska and Iowa, including some of the JLUS Study Area jurisdictions are prepared by the US Census, information is not available for certain jurisdictions. Table 2 shows the population projections for the JLUS communities. Douglas County had the highest population in 2010, with 517,110 people, and is projected to increase by 18.5 percent by the year 2030. As Douglas County continues to increase, residents are moving outward into Sarpy County. As the two counties continue to show strong population growth, bordering jurisdictions such as Cass County will experience a similar increase in populations.

Pottawattamie County, Iowa, is expected to have an increase in population of nearly six percent between 2020 to 2030, which is nearly the same percentage increase experienced from 2000 to 2010. Mills County population increase from the year 2020 to 2030 is almost double that as seen from 2000 to 2010.

These projected populations are not expected to be exact; however, they are estimated to help cities and counties to develop land use priorities to reduce impacts of future growth challenges.

Table 2. JLUS Study Area Population Projections from 2020 to 2030

Jurisdiction	2020	2030	Number Change	Percent Change
Nebraska	1,949,114	2,054,752	105,638	5.4%
Cass County	32,600	38,381	5,781	17.3%
City of Plattsmouth	N/A	N/A	N/A	N/A
Douglas County	562,813	613,149	50,336	8.9%
City of Omaha	459,938	485,279	25,341	5.5%
Sarpy County	191,540	224,709	33,169	17.3%
City of Bellevue	N/A	N/A	N/A	N/A
City of La Vista	N/A	N/A	N/A	N/A
City of Papillion	N/A	N/A	N/A	N/A
Iowa	3,020,496	2,955,172	-65,324	-2.2%
Mills County	18,100	19,879	1,779	9.8%
City of Glenwood	N/A	N/A	N/A	N/A
Pottawattamie County	97,943	103,872	5,929	6.1%
City of Council Bluffs	N/A	N/A	N/A	N/A

Source: US Census Bureau; University of Nebraska-Lincoln Bureau of Business Research; and Iowa State Data Center

JLUS Community Economic Trends

The primary economic activity throughout the Study Area is centered on the agriculture industry dating back to the early colonial period. Efforts to diversify Omaha's and Bellevue's economy with new sectors have brought substantial growth to the region and the counties of Douglas and Sarpy in the insurance, healthcare, and retail trade industries. These now represent the largest industries in the county, in addition to hospitality and food services.

Nebraska

Nebraska is a leading producer for numerous industries such as agricultural, manufacturing, mining, and private services which include law, healthcare, data processing, and financial companies. Known for their livestock, corn, soybeans, and wheat, the state is ranked fourth for its agricultural output. Manufacturing of chemicals puts Nebraska second on the list and one of the world's main food processing states. Private services such as health care, data processing, and law have also become a major contributor to the state's economy, with wholesale trade and finance coming in second, and government services and transportation third.

Source: http://www.netstate.com/economy/ne_economy.htm

Iowa

Over the years Iowa's economic structure has become more diverse, developing strong employment in agricultural production and manufacturing services. Top employment sectors include health care, business, financial, and consumer services. Iowa's housing trends are anticipated to increase through the population's growth. Due to the different levels of urbanization within the jurisdictions of Mills County, Pottawattamie County, and the Cities of Glenwood and Council Bluffs, the annual job growth rate is at an average of 1.2 percent. In 2000, 10 percent of Iowa county residents were commuting as far as Omaha for work; this average has decreased, reflecting stronger job growth within the area.

In the year 2007, Iowa ranked in the top three as a producer of corn, soybeans, hog, and other annual productions. Earning 4.8 percent from just farm production makes the state dependent on these earnings eight times more than the national average. Since 2008, Iowa has experienced a decline in the number of farmers. This decline is steady but slow, representing an out-migration of farmers.

Source: State of Iowa Consolidated Plan for Housing and Community Development, 2010; Workforce and Economic Development Regional Status Report, May 2012.



JOINT LAND USE STUDY

Offutt AFB Profile 3.

Offutt AFB is located in eastern Sarpy County, Nebraska, 10 miles south of the City of Omaha and adjacent to the City of Bellevue. Four miles north of the base lies Interstate 80 (I-80), it connects to US Highway 75 which borders the installation on the west and I-29 on the east. The US Highway 75 and I-29 then connect to US Highway 34 which lies directly south of Offutt AFB. Offutt AFB is considered to be a part of the Omaha-Council Bluffs metropolitan area. The installation comprises 4,041 acres; it also operates Capehart Housing Area and transmitter and receiver sites that are located in various communities across Nebraska.

Identifying and describing the various activities performed on the operating facilities and in the surrounding airspace provides valuable insight into the importance of Offutt AFB as a national strategic asset and as a part of the fabric of the surrounding communities including the Omaha Metropolitan Area. The purpose of providing this information is to enable stakeholders to make informed decisions about future development and economic growth within communities and institutions near Offutt AFB that could potentially impact the viability and future role of the base.

Installation Setting

Offutt AFB is broken up into multiple districts including the North, Airfield, Central, Southeast, and Historic. The North District includes the Kenney and Bellevue gates, the Martin Bomber building, the Airman Leadership School, the Child Development Center, the Navy Operational Support Center, and the 557th Weather Wing Headquarters. The Airfield District includes the runway, measuring 11,700 feet long, and its associated facilities. The Central District includes the USSTRATCOM Gate, the current USSTRATCOM facility, the location of the future new USSTRATCOM facility, the Exchange and Commissary buildings, the Fire Training area, and other facilities. The Southeast District includes recreational and fitness areas and supporting facilities for base operations. The Historic District is a memorable landmark, containing the original army living quarters, barracks, and parade grounds. Base Lake, another recreational area, is on the east side of the base, on the other side of Harlan Lewis Road.

Offutt AFB has several buildings that were built in the 1950's through the 70's including dormitories for on-base military housing, Main Exchange, Commissary, and library. Some of the original buildings from Fort Crook are still located on the site. Other facilities that exist on the installation include restaurants, gas stations, and a fitness center. Available family housing and schools are located west of US Highway 75, one mile from the base, known as the Rising View Community. This area provides other community services such as a medical clinic, two chapels, 18-hole golf course, youth and child development center, movie theater, and two elementary schools.

Future Opportunities

New opportunities for Offutt AFB include reuse and development considerations. A new USSTRATCOM headquarters building is currently being built. Once it is complete and operational, and personnel move in, this will allow other buildings to be considered for reuse or demolition. Many of the existing facilities on the installation's grounds have been determined for reuse to help reduce the amount of demolition and reconstruction. Repurposing the facilities will allow for the buildings to outlive their service life span. The Offutt Field House, existing USSTRATCOM, and historic barrack facilities all have options for reuse too. The existing Martin Bomber Building, Fairchild Hall, and other buildings on base have been considered for demolition due to their age and lack of functionality.

Source: Final Integrated Natural Resource Management Plan, March 2010, Offutt AFB Installation Development and Design, 2011.

Offutt AFB Mission Operations

Current Mission Operations

The mission of the 55th Wing states "To provide dominant intelligence, surveillance, reconnaissance, electronic attack, command and control, and precision awareness to national leadership and warfighters across the spectrum of conflict any time, any place". Other missions of the 55th Wing include providing support to other base units, combat ready personnel, and training operations for pilots, navigators, and warfare officers.

Offutt AFB provides information for the President and Secretary of Defense on enemy intentions, locations, capabilities and predicted operations. The installation also provides patient-centered care, world class mission support, and communication support during operations.

With the multiple missions that Offutt AFB provides, the main supporting action is the installation's ability to provide a safe command and control platform for the President and DOD to carry out their missions during a time

of national crisis. Current flight operations at Offutt AFB include straight out departures and in approach, overhead landing patterns, radar closed patterns, closed patterns, and re-entry visual flight rule patterns.

Future Mission Operations

Currently, there are no new future missions planned for Offutt AFB. However, Offutt AFB is capable of receiving certain types of future missions should that decision be made by the Department of Defense or the Air Force.

The Offutt AFB Installation Development and Design plan identifies a goal to retain options for attracting new missions to Offutt AFB when siting new facilities, including utilizing re-use and infill. A new USSTRATCOM headquarters building is currently under construction at Offutt AFB. Once the new USSTRATCOM headquarters building is complete, several buildings will be re-used for other tenants which will allow for some relocation of personnel around the base.

The future improvements for Offutt AFB involve enhanced advances in strategic combat capabilities for tomorrow's crises. There are several improvements and new development projects on Offutt AFB's long range construction plan including tearing down the main bomber plant, new road and gate access, and a new USSTRATCOM headquarters, which is currently under construction and estimated for completion in 2016, with a move-in-ready date of 2018. These improvements have an anticipated cost of several billion dollars, representing a large investment in the continued operation and available opportunities at the installation.

Offutt AFB Mission Footprint

Understanding the spatial patterns of the military operational areas is essential for promoting complimentary land use development decisions outside the fenceline.

Mission activities conducted on and around Offutt AFB can generate potential impacts on surrounding community areas if incompatible land uses develop. Examples of potential mission impacts on surrounding communities include noise and vibration from overhead flights and the risk of an aircraft accident. Conversely, the military mission is susceptible to hazards and other incompatibilities created by certain types of civilian development or activities, such as obstructions to air space or

location of noise sensitive uses in high noise zones. Understanding the overlapping spatial patterns of these compatibility zones, or “mission footprint” is essential for promoting compatible and informed land use decisions.

There are several elements that make up the mission footprint that extends outside the Offutt AFB boundaries. These essential elements play a key role in the installation’s viability for sustaining current and future mission operations. These elements are listed below and described in more detail on the following pages.

Offutt AFB Footprint Elements

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

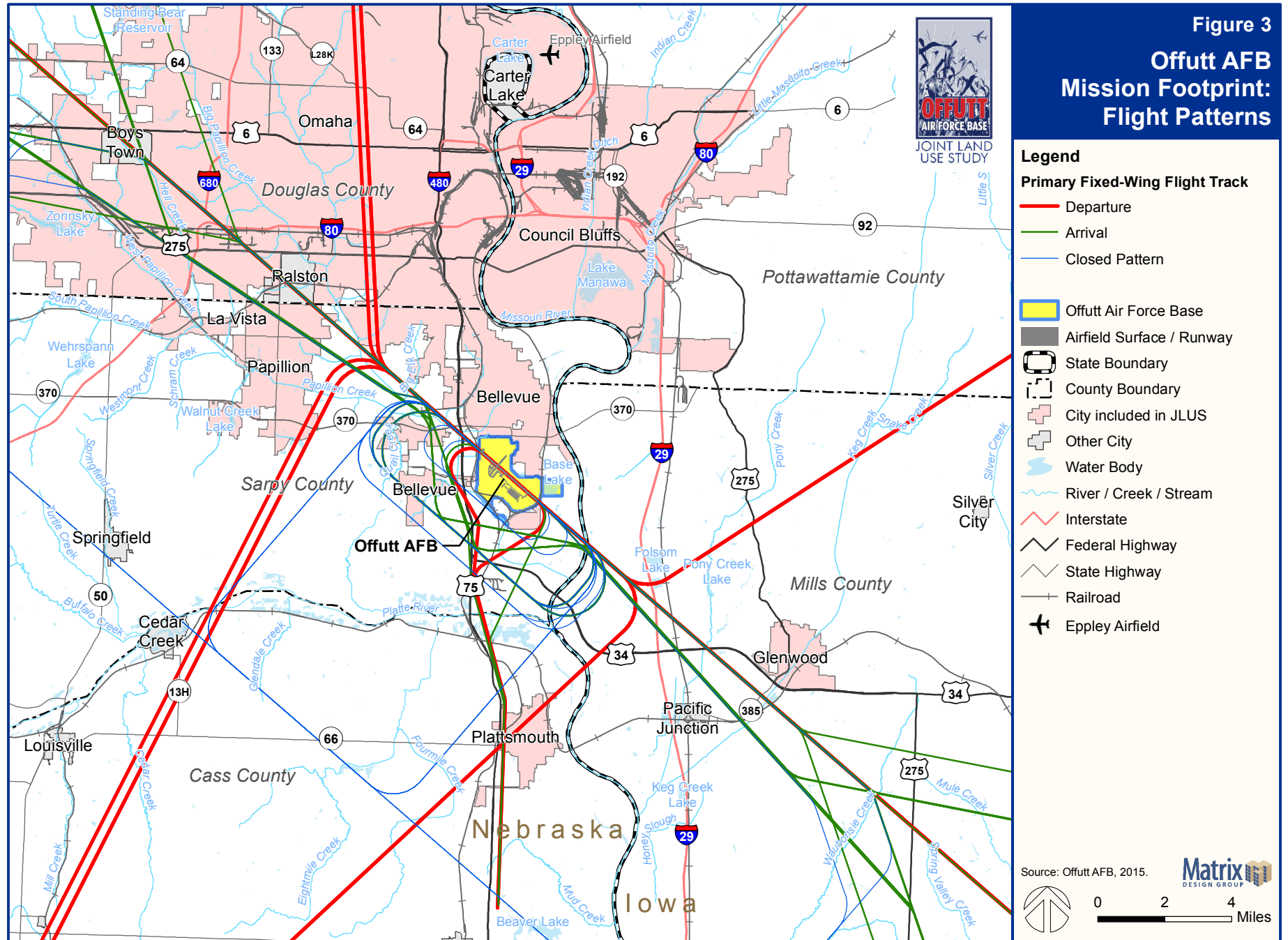
Airfield Approach and Departure Flight Tracks (Figure 3)

According to the Offutt AFB Air Installation Compatible Use Zone (AICUZ) Report, flight tracks are developed to provide guidance on the range of standard operations that may occur at the airfield. These are created using information gathered from air traffic controllers, pilots, and other sources. When flight tracks are developed they attempt to avoid urban development as much as possible to reduce impacts and risk to the general public and commercial or general aviation activities, but safety of operations is paramount in the design of these patterns. Figure 3 illustrates the primary flight tracks used by Offutt AFB aircraft. Other flight tracks may also be used depending on aspects such as weather or mission.

Source: Air Installation Compatible Use Zone Report, Offutt Air Force Base, November 2007



WC-135W aircraft performing touch and go operations at Offutt AFB



Imaginary Surfaces (Figure 4)

Federal Aviation Regulations, Part 77 specify a series of imaginary height restriction surfaces surrounding an airport. 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 these 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 clear zone and the approach-departure surfaces. Figure 4 illustrates the imaginary surfaces at Offutt AFB. For a complete technical explanation of the imaginary and transitional surfaces for Offutt AFB, see Chapter 5, Compatibility Assessment (Section 5.23 Vertical Obstructions) of the Background Report.

Airfield Accident Potential Zones (Figure 4)

In addition to the assessment of imaginary surfaces, the second element of the airfield safety analysis is the assessment of Accident Potential Zones (APZs). For a complete technical explanation of the APZs for Offutt AFB, see Chapter 5, Compatibility Assessment (Section 5.21 Safety) of the Background Report.

There are three safety zones that extend from the ends of runways: Clear Zone (CZ) and APZ I and APZ II. These are illustrated on Figure 4. The CZ begins at each end of the runway. At Offutt AFB, the Runway 12 CZ measures 3,000 feet wide by 3,800 feet long and the Runway 30 CZ measures 3,000 feet wide by 3,997 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. 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. These areas have lower

potential for accidents and therefore have less restrictive development restrictions recommended.

Source: Air Installation Compatible Use Zone Report, Offutt Air Force Base, November 2007

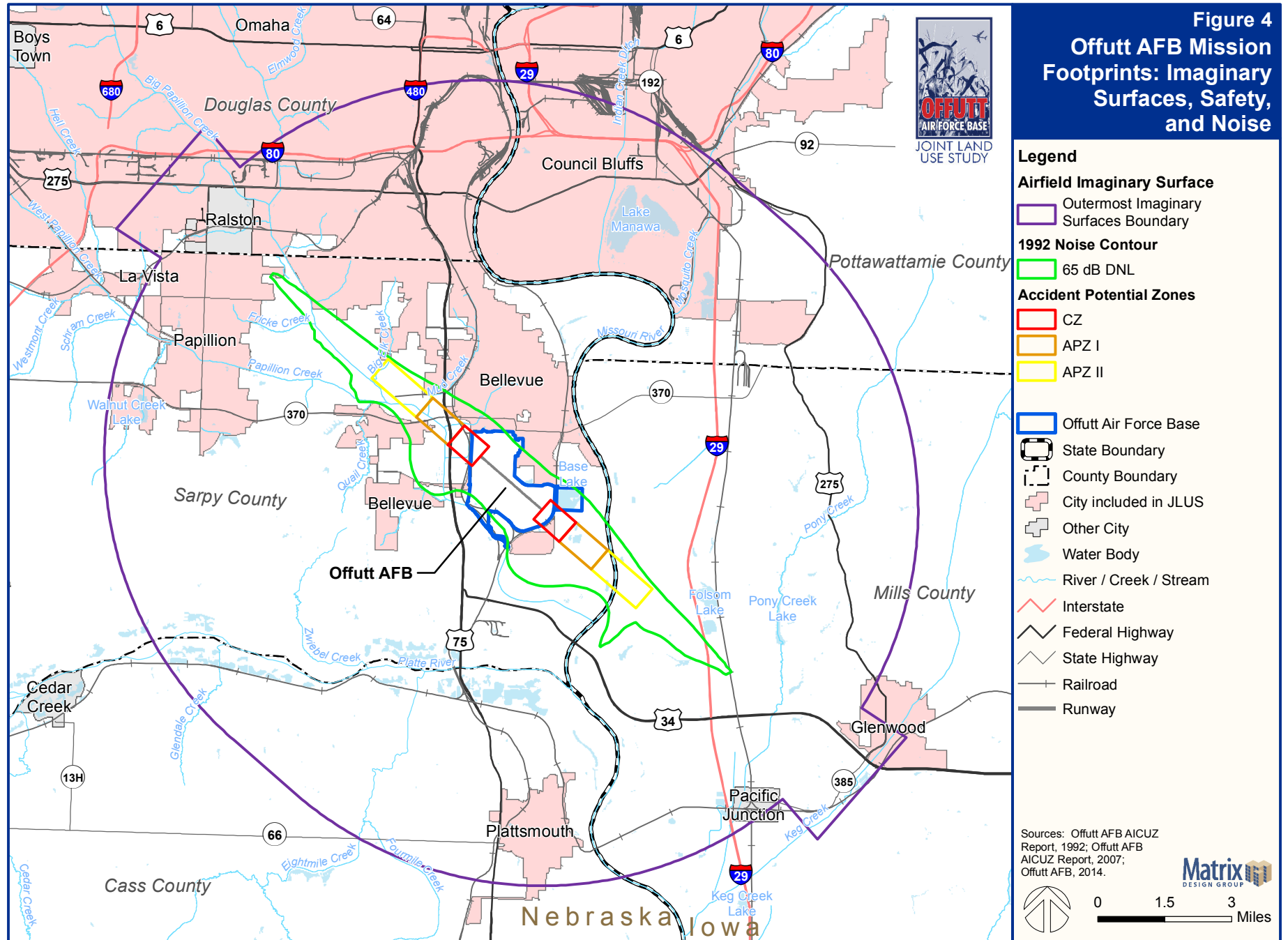
Airfield Noise Contours (Figure 4)

Aircraft noise can come from flight operations (overflight, take-offs, landings, touch-and-go operations) and engine maintenance run-ups. The Air Force considers how its operations impact the local community by calculating an average-weighted noise level measured as a day-night average A-weighted sound level (DNL). The Offutt AFB AICUZ uses the DOD NOISEMAP program to produce noise contours indicating noise exposure levels from aircraft operations; this is an average of all types of aircraft at Offutt AFB.

The contour lines developed in the model range from 60 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 60 dB DNL is the “quietest”. 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 impacts.

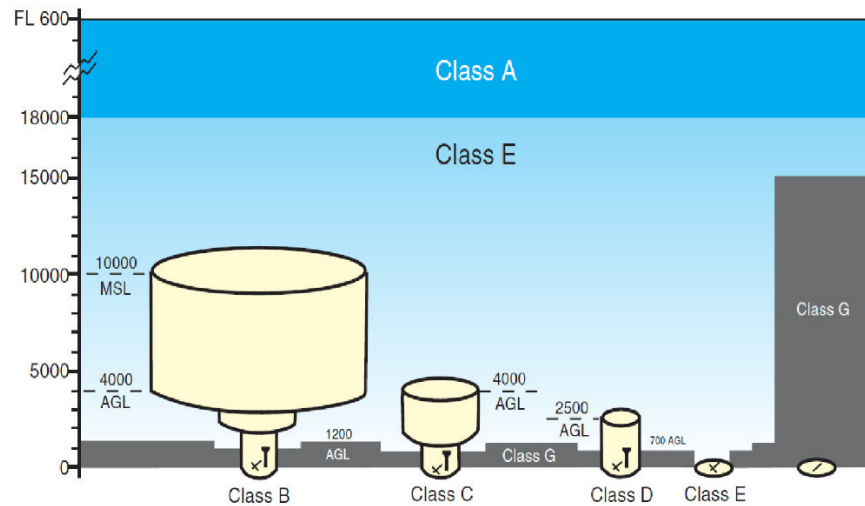
Noise contours are typically generated during the AICUZ Report process. Offutt AFB’s AICUZ was updated in 2007 to reflect a change in aircraft equipment and mission operations. This revised AICUZ included changes to the noise contours. The previous noise contours were from 1992 and were larger than the new ones developed with the 2007 AICUZ. However, in order to maintain mission noise protection and civilian development, both the City of Bellevue and Offutt AFB use the 1992 noise contours for planning purposes of future development. The 1992 noise contours are illustrated on Figure 4.

Source: Air Installation Compatible Use Zone Report, Offutt Air Force Base, November 2007



Airspace Control (Figure 5)

To help controllers and pilots deal with varying traffic conditions in the sky, United States airspace has been divided 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, Offutt AFB and Eppley Airfield are surrounded by Class C airspace. 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 5 shows the FAA Sectional Chart of the area and shows the Class C airspace areas described (highlighted in red for emphasis).

Part 77 Vertical Obstruction Compliance (Figure 6)

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.” A height that is 200 feet AGL 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 6 provides an illustration of this measure of vertical obstruction. Note that this is in addition to, not a replacement of, imaginary surface, discussed previously.

Bird / Wildlife Aircraft Strike Hazard Relevancy Area (Figure 7)

Birds and animals can present a significant hazard to military flight operations. While fatal accidents have been limited, impacts can be a safety concern and cause significant damage to aircraft. Bird or animal strikes since 1980 have approached approximately 20,000 events that have resulted in 2 deaths, 25 aircraft destroyed and over \$300 million in damage. Since 2004, Offutt AFB has experienced 29 damaging bird strikes that have resulted in \$9.2 million in damage.

Certain types of land uses attract birds and wildlife, such as open water areas, standing water, and other natural areas. The location of Offutt AFB near the Missouri and Platte Rivers increases risk for Bird / Wildlife Aircraft Strike Hazard (BASH) incidents. Relative to compatibility, the control of attractions near the airfield is important. Figure 7 shows a five-mile radius around the Offutt 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 compatibility planning for this issue.

Source: BASH It's Not Just Another Four-Letter Acronym, *The Combat Edge*, 2012

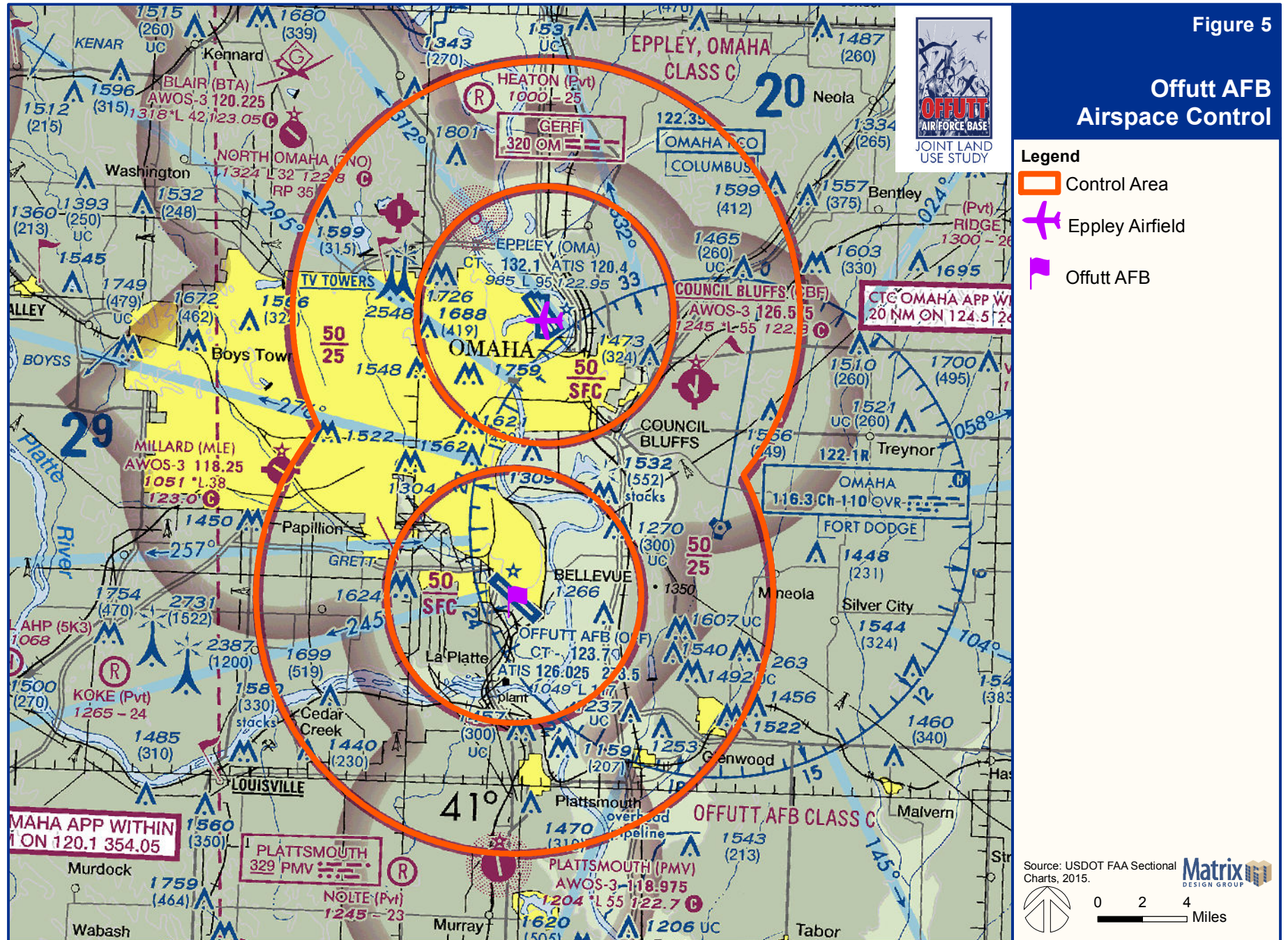
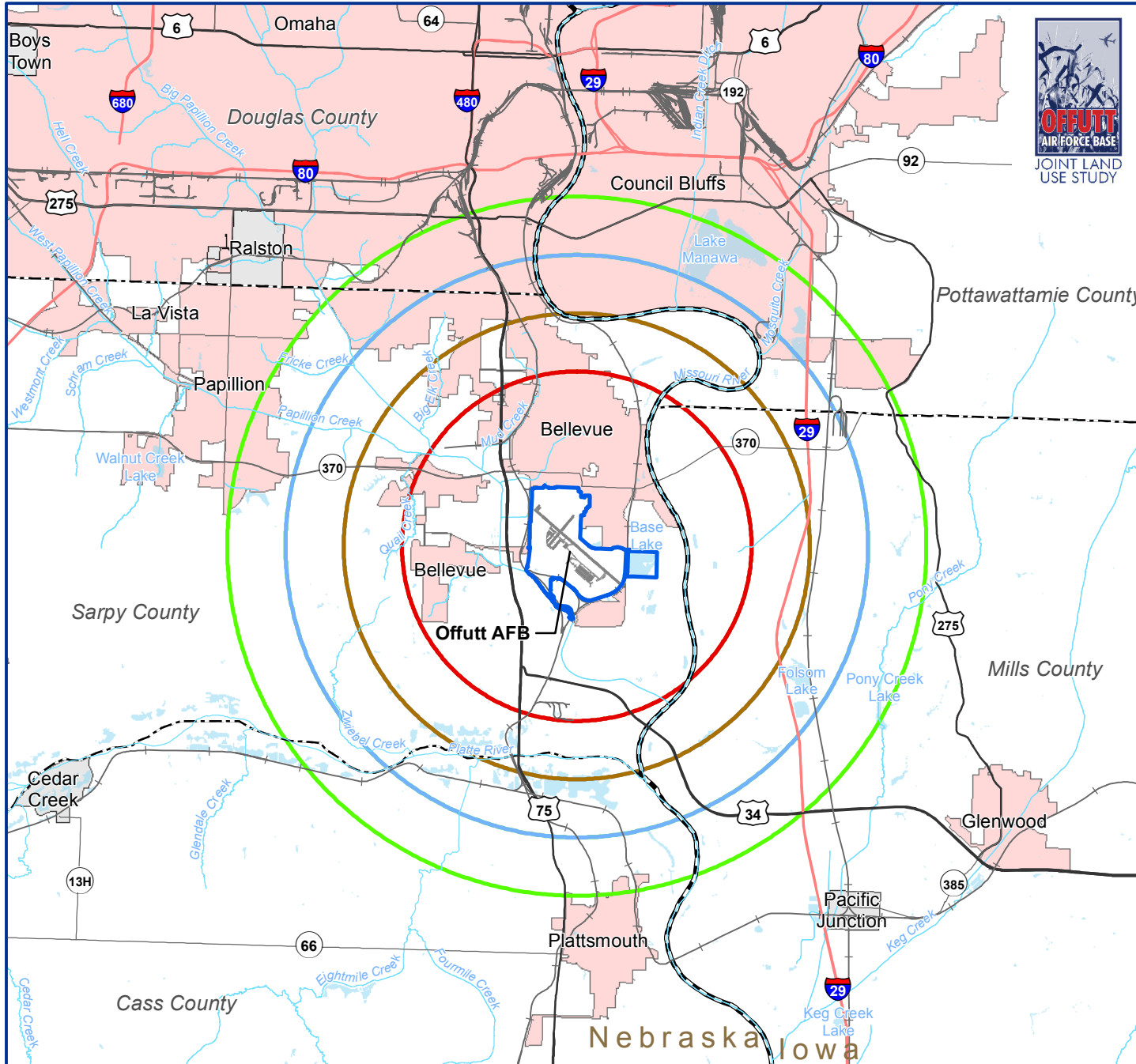




Figure 6
Offutt AFB
Mission Footprint:
Part 77

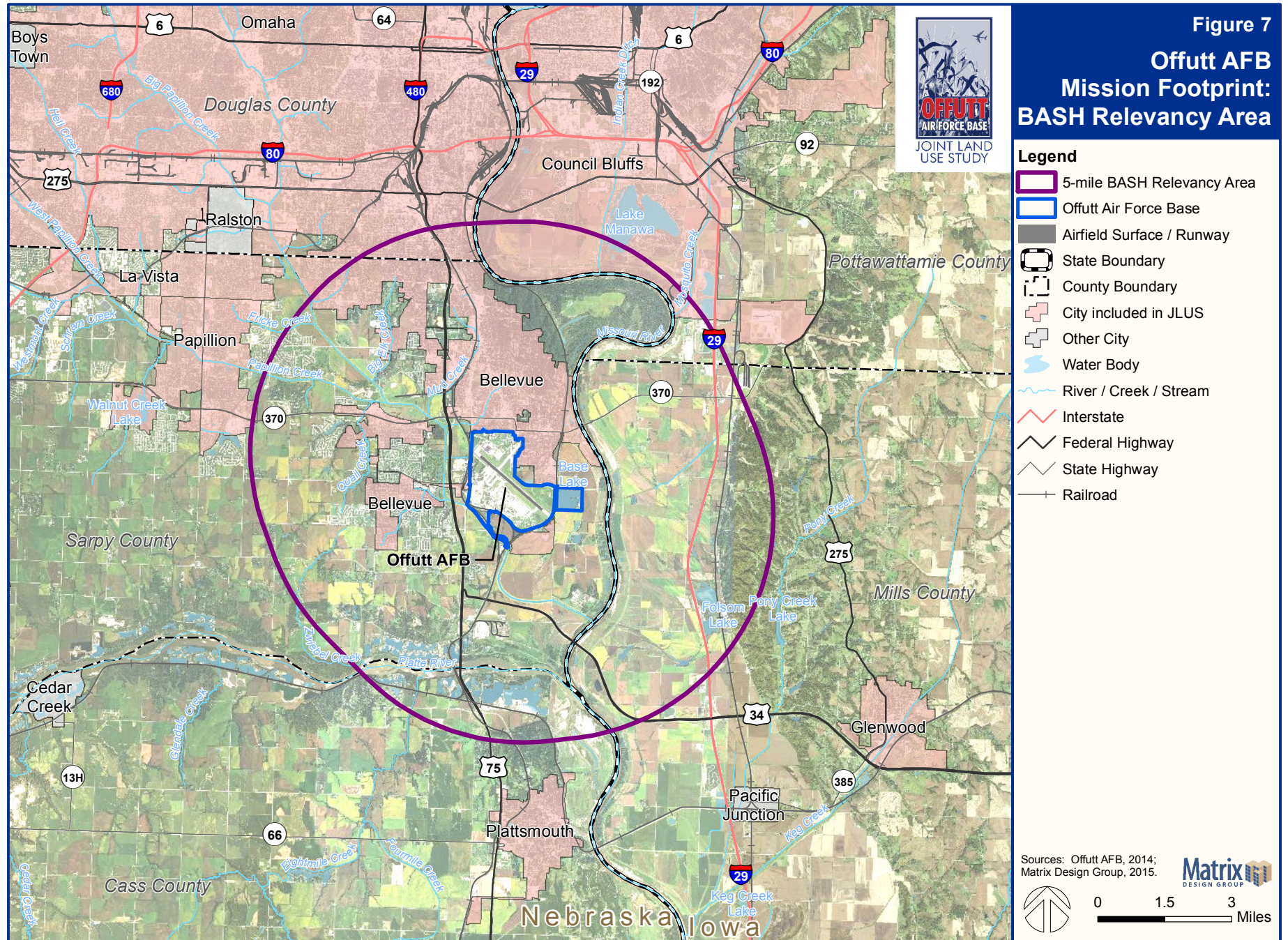


Legend

- Up to 200' @ 3NM
- Up to 300' @ 4NM
- Up to 400' @ 5NM
- Up to 500' @ 6NM
- Offutt Air Force Base
- Airfield Surface / Runway
- State Boundary
- County Boundary
- City included in JLUS
- Other City
- Water Body
- River / Creek / Stream
- Interstate
- Federal Highway
- State Highway
- Railroad

Sources: Offutt AFB, 2014;
Matrix Design Group, 2015.

0 1.5 3 Miles





JOINT LAND USE STUDY

Existing Compatibility Tools 4.

There are many existing tools that can be used to encourage, promote, and manage compatibility 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 Offutt Air Force Base (AFB) Joint Land Use Study (JLUS) area. Relative to compatibility planning, there are a number of existing plans and programs which are either designed to address compatibility directly or which indirectly address compatibility issues through the topics they cover. This summary provides an overview of key plans and programs that impact compatibility planning for the Offutt AFB JLUS area and is not meant to be exhaustive in nature. For a comprehensive listing of tools, see Chapter 4, Compatibility Tools in the Background Report.

There are three types of planning tools evaluated relative to their applicability: permanent, semi-permanent, and conditional. Permanent planning tools include acquisition programs, either fee simple purchase of property or the purchase of development rights. Semi-permanent tools include regulations such as zoning or adopted legislation. Conditional tools include memorandums of understanding, intergovernmental agreements, and other policy documents such as comprehensive plans and general plans that can be periodically modified. This review is meant to provide an overview of applicable planning tools and determine how each may apply to compatibility issues identified by the Offutt AFB JLUS process, as presented under the compatibility factors discussed in Chapter 5, Compatibility Assessment.

Federal Programs and Policies

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 Encroachment Management Framework, which has four elements (Organize, Assess, Act, and Monitor) to address the variety of challenges. Organization involves 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.

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.

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 for a variety of purposes, including the management of airspace over the U.S.

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 compatibility 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.

Telecommunications Act of 1996 and the Federal Communications Commission

The Telecommunications Act of 1996 was the first comprehensive update to federal telecommunication law in over six decades and was in large part intended to open up the marketplace to greater competition. Changes in the means through which information is produced, accessed, stored and shared made the federal government response imperative. The increasing use and development of personal mobile phones, satellite transmission, high speed fiber optics, and other related factors are often pushing demand beyond the system capacity.

New telecommunication tower siting requires compliance with the Federal Communications Commission’s (FCC) environmental review standards and procedures, including NEPA and ESA compliance, National Historic Preservation Act compliance, adherence to any applicable

FAA requirements, and structure registration with the FCC. The actual approval of physical installations is subject to state and local permits and approvals; however, state and local authority is limited by FCC law. For instance, states and local jurisdictions cannot base their decisions on any purported environmental effects of radio frequency transmissions.

US Avian Hazard Advisory System

The U.S. Avian Hazard Advisory System (USAHAS) is a geographic information system-based bird avoidance model developed by the U.S. 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 U.S. 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/>.

Federal programs provide authority for state and local governments to implement actions to protect the military and the community.

Offutt AFB Plans and Programs

Air Installation Compatible Use Zone Report

The Air Installation Compatible Use Zone (AICUZ) program was created by the DOD in 1973 to address noise and safety hazards associated with aviation operations. The AICUZ program was established to minimize impacts from aviation operations (noise and accidents) through specific attention to development and land uses. 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 compatibility between military operations and communities.

The AICUZ provides recommendations to local government and other entities for actions they can implement to further compatibility goals and objectives of their comprehensive master plans, development codes (zoning ordinances), and other land use regulations.

Bird / Wildlife Aircraft Strike Hazard Plan

Offutt AFB maintains a BASH Plan to minimize the threat of bird strikes to aircraft and protect local wildlife. A BASH is designed to minimize wildlife and bird strike damage to military aircraft. A BASH plan is designed to control birds, alert aircrew and operations personnel, and provide increased levels of flight safety, especially during the critical phases of flight, take-off and landing operations. Specifically, the plan is designed to:

- designate a Bird Hazard Warning Group (BHWG) and outline the members’ responsibilities,
- establish procedures to identify high hazard situations and establish aircraft and airfield operating procedures to avoid these situations,
- ensure that all permanent and transient aircrews are aware of bird hazards and the procedures for avoidance, and
- develop guidelines to decrease the attractiveness of the airfield to birds and disperse the number of birds on the airfield.

State of Nebraska Plans and Programs

Extraterritorial Jurisdictions of Municipalities

An Extraterritorial Jurisdiction (ETJ) of a municipality designates the area beyond the municipality's boundaries for future growth. The governing body of a city, town, or village may request for an ETJ of land that is located within three miles of its corporate boundaries if it is classified as a metropolitan city (City of Omaha), two miles of its corporate boundaries if it is designated as first class city and one mile from the corporate boundaries if it is designated as second class city. A metropolitan class city, as defined by the Nebraska Legislature, is one that has more than 100,000 inhabitants. Cities of the first class are all cities having more than 5,000 and not more than 100,000 inhabitants. Cities of second class are cities, towns, and villages containing more than eight hundred and not more than five thousand inhabitants. Inhabitant numbers must be ascertained and officially promulgated by the United States or under the authority of the State of Nebraska or by the authority of the mayor and city council of any such city. Nebraska law allows cities to regulate land uses and implement zoning within their ETJ, allowing them to manage growth within the ETJ.

State of Nebraska Hazard Mitigation Plan

The State of Nebraska Hazard Mitigation Plan establishes guidelines and procedures for hazardous responses. The plan identifies the potential risks that could occur and develops a mitigation process by coordinating with multiple governmental units, including the military department and U.S. Army Corps of Engineers.

This is important for Offutt AFB because it allows for coordination with state and other governmental units on the mitigations to protect Nebraska communities from future impacts.

Nebraska and Iowa Local Jurisdiction Planning Tools

The planning tools used by the JLUS Study Area jurisdictions were analyzed and categorized as permanent, semi-permanent, or conditional. In Nebraska, as in many other states, cities and counties may exercise land use and development regulatory authority. Cities and counties are legally bound by statute to adopt general plans.

Comprehensive Plans and Master Plans

In 1967, the State of Nebraska granted individual counties and municipality's authority to develop comprehensive plans and zoning regulations. A comprehensive plan / master plan is a document to guide long range development plans of jurisdiction and its future growth. These planning documents provide goals and visions for the jurisdiction to grow and address economic development, land use, future population growth, community image, transportation, infrastructure, and community facilities. Comprehensive / master plans are considered semi-permanent planning tools because they can be amended and may cause a change in goals or policies.

Zoning Ordinances / Regulations

The purpose of the zoning ordinance is to serve the general welfare, safety, and health of the city and its residents and to recognize specific, sustainable, and compatible uses for areas within its jurisdiction. In order to be effective in accomplishing the jurisdiction's goals and visions, a zoning ordinance / regulation should coincide with the adopted comprehensive plan. Zoning ordinances / regulation are considered semi-permanent planning tools because they can be amended and lands can change their zoning designation if they go through the proper process.

Subdivision Regulations

Subdivision regulations outline requirements to implement functional streets, and to provide the community with sufficient lot sizes and open space, while conforming with the comprehensive plan to develop land in an orderly manner.

While subdivision regulations typically define the standards, procedures, and other requirements for land division, they can also help to prevent or limit future encroachment into an installation or adjacent operational areas by specifying allowable types of infrastructure improvements associated with a subdivision, such as street lights. Subdivision regulations can be used as a foundation to ensure mission sustainability, particularly with dark sky provisions and development density.

Building Codes

Building codes are intended to regulate building construction, materials, alteration and occupancy to ensure health, safety and welfare. Building codes can regulate building construction such that it is compatible with military operations, including sound attenuation for residences within applicable noise zones. Building codes, similar to other regulatory tools, are considered semi-permanent.

City of Bellevue

Comprehensive Plan

Bellevue's location immediately adjacent to Offutt AFB allows the city increased opportunities to help protect military compatibility. The Bellevue Comprehensive Plan includes a short term goal that seeks to protect Offutt AFB from incompatible development.

Make the AICUZ an asset to the community (i.e. open space, linear park connecting to other park and trail systems) while protecting Offutt Air Force Base from encroachment from development

This goal helps to protect the Offutt AFB APZs. The APZs are very important as development in these areas could prevent Offutt AFB from carrying out missions and could increase safety risks to the public.

Additionally the plan states the need for Flexible-Space Districts. This is to promote land uses that are more compatible with their adjacent areas. Areas near Offutt AFB that are considered for flexible-space zoning include Kennedy Freeway, Capehart Road, north, southwest, and southeast corners of Fairview Road, and Fort Crook Road.

Zoning Ordinance

The City of Bellevue's Zoning Ordinance was updated in 2011 and divides the land within the city into 20 zoning districts and nine overlay districts. The zoning ordinance state compatible land uses within the AICUZ areas include the CZ, APZ I and II, Noise Zones, and Height and Obstruction criteria for the Overlay Districts. The following statements are implemented to:

Reduce the risk to public health, safety, and quality of life due to aircraft noise exposure and accident potential.

Promote compatible land development in areas surrounding a military airfield by regulating land uses and establishing criteria for the regulation of building height and density.

Preserve the operational capabilities and mission of Offutt Air Force Base and to prohibit uses which create potential hazards to the safe approach and departure of aircraft.

Address potentially life threatening situations in areas exposed to aircraft accident potential through restrictions on the congregation of large numbers of people or high concentrations of people and by restrictions on concentrations of people who are unable to respond to emergency situations such as children, elderly, handicapped, and persons undergoing medical treatment.

Increase the protection of persons exposed to high levels of aircraft noise by requiring acoustical treatment in buildings located within these areas and regulating those uses which are sensitive to such noise.

It is also requires that the Base Civil Engineer at Offutt AFB be notified of development in order to maintain compliance with the AICUZ, and any development within the related area must conform to the FAA Part 77 height restrictions.

Section 5.29 of the City of Bellevue Zoning Ordinance is established as the AICUZ Overlay District, which provides recommendations to communities for land uses in the APZs and the noise zones. The ordinance clearly adopts the 1992 AICUZ Report recommended land use table for safety and noise. The ordinance applies to new development and any change, expansion, or addition of an existing structure or property. Any development in the overlay requires a separate development permit. It is important to note too that the City of Bellevue has continued to use the larger 1992 AICUZ contours to maintain compatibility should the opportunity for new missions be evident.

The most recent Offutt AFB AICUZ Report was approved in 2007; however, for planning purposes, Offutt AFB and the City of Bellevue use the 1992 noise contours because they are larger than the 2007 AICUZ contours and provide for a larger area to address compatibility in case the contours increase in size in the future. The only issue with this ordinance is that the DOD has updated their instructions for AICUZ programs as of 2015. These AICUZ recommendations from the 1992 Offutt AFB AICUZ Report may be outdated and could be inconsistent with the 2015 recommendations.



JOINT LAND USE STUDY

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 or in conflict with joint land uses such as community activities and military installations. For this Joint Land Use Study (JLUS), 25 compatibility factors were used to identify, determine, and establish a set of key JLUS compatibility issues.

COMPATIBILITY FACTORS	
AQ Air Quality	LAS Land / Air / Sea Spaces
AT Anti-Terrorism / Force Protection	LU Land Use
BIO Biological Resources	LEG Legislative Initiatives
CA Climate Adaptation	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
HA Housing Availability	VO Vertical Obstructions
IE Infrastructure Extensions	V Vibration
	WQQ Water Quality / Quantity

Methodology and Evaluation

The methodology for the Offutt AFB JLUS consisted of a comprehensive and inclusive discovery process to identify key stakeholder issues associated with the compatibility factors. At the initial Policy Committee (PC) and Technical Advisory Committee (TAC) workshops and public meetings, stakeholders were asked to identify the location and type of issue in conjunction with compatibility factors they thought existed today or could occur in the future. As a part of the evaluation phase, the PC, TAC, and the public examined and prioritized the extent of existing and potential future compatibility issues that could impact land within or near the JLUS Study Area. Other factors and associated issues were analyzed based on available information and similarity with other community JLUS experiences around the country.

Of the 25 compatibility factors considered, four were determined to be inapplicable to this JLUS:

- Marine Environments
- Scarce Natural Resources
- Public Trespassing
- Vibration

Organization of the Issues

The compatibility issues are organized by Minor Issues and Major Issues. The Minor Issues were isolated from the original set of compatibility issues as they were determined not to be as important as the major issues. Thus, the Minor Issues did not warrant in-depth analysis. The Major Issues are analyzed in depth in Chapter 5 of the Background Report and have strategies developed for them in Chapter 6 of this JLUS document.

Minor Issues

Air Quality

Air quality is defined by numerous components regulated at the federal and state level. For compatibility, the primary concerns are pollutants that limit visibility, such as particulates, ozone, etc. and potential non-attainment of air quality standards that may limit future changes in operations at the installation or in the area. The following Air Quality issue was identified:

- **Vehicle exhaust from idling cars.** When the new STRATCOM facility opens, there is expected to be traffic congestion on-base that may impact air quality from many vehicles idling as they wait to park.
- **Concern about fuel dumping.** There is a public concern about the potential for aircraft impacts on air quality relative to two items: potential for lead contamination from aircraft flying overhead, and potential fuel dumping from aircraft operating at Offutt AFB.

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 issue was identified:

- **Fort Crook Road and Harlan Lewis Road adjacent to Offutt AFB.** Fort Crook Road is adjacent to Offutt AFB and is in proximity to sensitive areas such as the new STRATCOM headquarters and officer and personnel on-base housing. People using Harlan Lewis Road on the east side of the base can see into the base in certain areas.

Cultural Resources

Cultural resources are an aspect of a cultural system that is valued by or significantly representative of a culture or contain significant information about a culture. A cultural resource may be a tangible entity or a cultural practice. Tangible cultural resources are categorized as artifacts, records, districts, pre-contact archaeological sites, historic archaeological sites, buildings, structures, and objects. Historic properties are cultural resources that are eligible or listed on the National Register of Historic Places. Cultural resources may prevent development, require development constraints, or require special access by Native American tribal governments or other authorities. The following Cultural Resources issue was identified:

- **Base Cemetery near Bellevue Gate.** There is a military cemetery on Offutt AFB near the Bellevue Gate. This gate was temporarily closed, prompting visitors to go through the Kenney Gate to get to the cemetery during this time.

Frequency Spectrum Impedance / Interference

Frequency spectrum is the entire range of electromagnetic frequencies used for communications and other transmissions, which includes communication channels for radio, cellular phones, and television. In the performance of typical operations, the military relies on a range of frequencies for communications and support systems. Similarly, public and private users rely on a range of frequencies in the use of cellular telephones and other wireless devices on a daily basis. The following Frequency Spectrum Impedance / Interference issue was identified:

- **Concerns regarding potential frequency interference following the development of the Google campus in Pottawattamie County.** The Google campus located in Pottawattamie County is a major economic driver for the region. Some concerns have been voiced regarding potential frequency interference; however, the campus does not involve satellite transmissions, so is not likely to cause frequency impacts with Offutt AFB.

Major Issues

Air Quality

Air quality is defined by numerous components regulated at the federal and state level. For compatibility, the primary concerns are pollutants that limit visibility, such as particulates, ozone, etc. and potential non-attainment of air quality standards that may limit future changes in operations at the installation or in the area. The following Air Quality issue was identified:

- **Proposed new ozone standards.** Proposed new ozone standards may be an issue since the Study Area is close to the new limit.

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:

- **Future land development could allow line-of-sight views into Offutt AFB.** Future land development on the south side of the runway, near Harlan Lewis Road and the railroad, could cause security concerns regarding individuals being able to look in on military operations.
- **Hazardous materials pass by Offutt AFB.** The railroad that passes near the installation sometimes carries hazardous cargo that could impact the base if an accident occurred.
- **Closure of Bellevue Gate.** AT/FP response times outside the base are impacted when the Bellevue Gate is closed.



Burlington Northern Santa Fe train transporting oil through Nebraska

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 issues were identified:

- **Zebra mussels in Base Lake.** An infestation of invasive zebra mussels has been introduced into Base Lake and previous eradication measures did not address re-infestations of the species.
- **Bird migratory routes.** Offutt AFB is within an important bird migratory route and many species of birds travel through the region during migration seasons. The presence of birds near the runway and within flight tracks presents potential dangers to pilots and aircraft.

Climate Adaptation

Climate adaptation is the effort to prepare for future climate changes resulting from natural factors and human activities that influence long-term atmospheric conditions. The effects may include fluctuations in sea levels, storm and tidal surges, and changes in flood potential which can present operational and planning challenges for the military and communities. The following Climate Adaptation issues were identified:

- **Potential wetland flooding at Offutt AFB.** There are 14 wetlands that cover 147 acres on Offutt AFB that are regulated by the U.S. Army Corp of Engineers (USACE). The base's location next to the Missouri and Platte Rivers also puts it in close proximity to flood zones. During heavy rainfall, this area is prone to flooding, and flooding onto Offutt AFB may cause delays in missions and operations.



Missouri River flooding around Offutt AFB, July 2011

- **Recertification is required for the levee system around Offutt AFB.** Due to changes in the base flood elevation of the Missouri River, Federal Emergency Management Agency (FEMA) has identified the need to raise the levee between two inches to several feet for it to be capable of protecting the installation. The Papio-Missouri River Natural Resources District (P-MR NRD) has been notified by FEMA, that if the levee is not fixed by 2017, the levee will be de-certified.

Communication / Coordination

This discussion refers to the programs and plans that promote interagency 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:

- **Lack of public awareness about Offutt AFB mission requirements.** While there is a good relationship between Offutt AFB and its surrounding communities, there is no formal communication process for informing nearby residents of the activities that occur at the base. This is especially important during unique activities that do not occur on a regular basis, such as emergency management training or disaster simulations.
- **Formalize communication and coordination between Offutt AFB and communities regarding new development.** There is a need for formal agreements or standard processes for including the Air Force in the review and approval of community development projects proposed within the JLUS Study Area. Although some communication occurs through an informal process, the lack of a designated point of contact and standard process that outlines response times and stakeholder responsibilities have resulted in a nominal response rate.

Dust / Smoke / Steam

Dust results from the suspension of particulate matter in the air. Dust (and smoke) can be created by fire (controlled or prescribed burns, agricultural burning, and artillery exercises), ground disturbance (agricultural activities, military operations, grading), industrial activities, or other similar processes. Dust, smoke and steam are compatibility issues if sufficient in quantity to impact flight operations (such as reduced visibility or cause equipment damage). The following Dust / Smoke / Steam issues were identified:

- **Burning of native prairie.** Controlled burns of native prairie near Offutt AFB may impact pilot visibility.
- **Potential industrial development south of Offutt AFB.** The land south of Offutt AFB could be developed with industrial uses that may impact pilot visibility.

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), vertical obstruction (wind generation), or frequency interference (wind generation). The following Energy Development issues were identified:

- **Potential wind farm development in the region could interfere with military devices / operations.** Areas proximate to Offutt AFB have been identified by wind farm developers as an area of interest for potential alternative energy projects. The siting of wind farms within 10-30 miles of Offutt AFB could result in impacts to Air Force systems and operations, particularly communication infrastructure and frequency interference.
- **Potential solar development in the region could impact pilot visibility.** Certain types of solar energy systems could interfere with pilot visibility if they are located in areas that cause glare or reflection into flight paths.



Walnut Wind Farm in Pottawattamie County, Iowa

Frequency Spectrum Capacity

Frequency spectrum refers to the range of electromagnetic waves capable of carrying signals for point-to-point wireless communications. In a defined area, the frequency spectrum is limited and increasing demand for frequency bandwidth from commercial applications such as cellular phones, computer networking, GPS units, and mobile radios, is in direct competition with the capacity necessary for maintaining existing and future missions and communications on installations. The following Frequency Spectrum Capacity issues were identified:

- **Data bandwidth usage.** The 55th Wing, STRATCOM, and the 557th Weather Wing are all heavily dependent on data bandwidth.

Frequency Spectrum Impedance / Interference

Frequency spectrum is the entire range of electromagnetic frequencies used for communications and other transmissions, which includes communication channels for radio, cellular phones, and television. In the performance of typical operations, the military relies on a range of frequencies for communications and support systems. Similarly, public and private users rely on a range of frequencies in the use of cellular telephones and other wireless devices on a daily basis. The following Frequency Spectrum Impedance / Interference issues were identified:

- **Local radio stations may cause interference with Offutt AFB operations.** There is a potential for radio frequency interference, including the local KIMI radio station, to interfere with operations at Offutt AFB or aircraft instrumentation if they are on a similar frequency to one used by the base.
- **Growing communities and increased usage of electronic devices could interfere with military frequencies.** As communities grow around Offutt AFB and its off-site remote transmitter sites, Elkhorn and Scribner, there is likely to be an increase in wireless devices and other types of devices that may pose frequency interference concerns for Offutt AFB 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 options for Offutt AFB personnel.** Local jurisdictions' growth policies do not specifically address military workforce housing needs and the military has not provided adequate information on housing demand by location.



Offutt AFB military family housing

Infrastructure Extensions

Infrastructure refers to public facilities and services such as sewers, water, electric, and roadways that are required to support development (existing and proposed). Public facilities and services should be appropriate for the type of urban or rural development they serve, but also limited to the existing and planned needs and requirements of the area. For example, the provision of a safe transportation system, including all modes of transportation (automobile, mass transit, railway, highway, bicycle, pedestrian, air, water, etc.), is an important infrastructure component. Adequate transportation infrastructure contributes to local, regional, and state accessibility. The following Infrastructure Extension issue was identified:

- **Infrastructure improvements / extensions may induce growth close to Offutt AFB.** The new US Highway 34 extension may provide mutual benefits for connecting surrounding counties but also has the potential to induce heavy traffic due to an increase in capacity. The completion of Highway 34 corridor may spur new development south of Offutt AFB, most likely industrial, which may be incompatible with the base's operations or pose safety concerns for the aircraft. The extension of additional / new services to the base could create the potential for growth inducement in areas subject to impacts from Offutt AFB activities and operations.

Land / Air / Sea Space Competition

The military manages or uses land and air 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. The following Land / Air / Sea Space Competition issues were identified:

- **Non-military drones.** Due to the lack of coordination with the FAA and / or Offutt AFB, non-military drones could interfere with military operations at Offutt AFB.
- **Potential for runway expansion.** Due to topographic features on the north end of the runway and the need for runway over runs, there is a desire to expand the runway to the southeast to protect future operations and missions. This would require additional standoff distances outside the current base boundaries.

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' general 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:

- **Offutt AFB AICUZ Report land use recommendations adoption.** Not all of the communities around Offutt AFB utilize the AICUZ recommendations for land use development in aircraft operational areas, which may allow for incompatible development to occur in some areas.
- **Additional growth near military operating areas may impair the use of Offutt AFB aviation assets.** Undeveloped land in the vicinity of Offutt AFB, such as within the approach and departure corridors, has the potential to be developed with incompatible uses that could impact the ability to safely carry out missions.

Legislative Initiatives

Legislative initiatives are proposed changes in relevant policies, laws, regulations or programs which could potentially have a significant impact on one or more substantive areas of concern to both the facility and to the stakeholder communities. The focus of this compatibility issue is on initiatives with general and broad implications. The following Legislative Initiative issues were identified:

- **Multiple jurisdictional authority on portions of Offutt AFB.** There are multiple jurisdictional authorities on portions of Offutt AFB in the northwest corner that place the area under legal jurisdiction of the Sarpy County authorities.

- **Drop in the percentage of military children enrolled in Bellevue School District schools.** The reduction in the percentage of military student enrollment within Bellevue schools is due to an increase in civilian students causing a reduction in percentage of military students and alternate housing options for military families outside of Bellevue. The reduction of percentage of military students has resulted in Bellevue no longer being defined as a “highly impacted” community for military students and decreased the Bellevue budget by \$5 million dollars, which may cause future constraints that will impact classroom sizes and availability of new supplies.

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 air 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:

- **Lighting impacts from future development around Offutt AFB.** Increased development around Offutt AFB may include lighting systems that are incompatible with nighttime operations at the base.

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. The following Noise issue was identified:

- **Noise from aircraft operations.** The aircraft operations that occur at Offutt AFB produce noise that can be heard outside the boundaries of the base, within surrounding communities.

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. As transportation systems grow and provide more capacity, these facilities induce and encourage growth as rural areas become more accessible. The following Roadway Capacity issues were identified:

- **Potential increase in employee traffic following the completion of the STRATCOM building.** When it is completed, Offutt AFB’s new STRATCOM building may increase the amount of traffic outside the STRATCOM Gate, which may impact local civilian traffic.



Current Offutt AFB STRATCOM Gate

- **Highway projects may increase commuting traffic from areas south of Offutt AFB.** The expansion of Highway 75 and completion of Highway 34 may cause an increase in traffic from employees commuting to Offutt AFB from Plattsmouth, Buccaneer Bay, Beaver Lake, Glenwood, and other areas south of the base. Safety

Safety Zones

Safety zones are areas in which development should be more restrictive, in terms of use and concentrations of people, due to the higher risks to public safety. Issues to consider include aircraft accident potential zones, weapons firing range safety zones, and explosive safety zones. Military installations often engage in activities or contain facilities that, due to public safety concerns, require special consideration by local jurisdictions when evaluating compatibility. It is important to regulate land use near military airfields in order to minimize damage from potential aircraft accidents and to reduce air navigation hazards. To help mitigate potential issues, the Department of Defense (DOD) has delineated Clear Zones (CZ) and Accident Potential Zones (APZ) in the vicinity of airfield runways. APZs are usually divided into APZ I and APZ II. Each zone was developed based on the statistical review of aircraft accidents. Studies show that most mishaps occur on or near the runway, predominately along its extended centerline. The following Safety issues were identified:

- **Habitat for wildlife surrounding Offutt AFB.** Vegetation and water sources, including the Schilling Wildlife Management Area, Gifford Point Wildlife Management Area, Base Lake, Catfish Lake, Platte River, and Missouri River nearby Offutt AFB can promote nesting habitats for birds and pose a safety hazard for flight operations.
- **Existing uses in runway safety zones.** There are some incompatible uses that currently exist within the runway safety zones that were established prior to the AICUZ zoning overlay.

Vertical Obstructions

Vertical obstructions are created by buildings, trees, structures, or other features that may encroach into the navigable airspace or line of sight radar signal transmission pathways used by the military. These obstructions can be a safety hazard to both the public and military personnel and potentially impact military readiness. Vertical obstructions can compromise the value of low-level flight training by limiting the areas where such training can occur. These obstructions can include a range of items from man-made, such as telephone poles, utility transmission towers, and radio antennas, to natural, such as tall trees and land features. The following Vertical Obstructions issues were identified:

- **Height of nearby trees.** Tree height obstructions are a concern for the air operations at Offutt AFB.
- **Height of future development.** Lands within the airfield imaginary surfaces have the potential for development that is taller than the recommended heights and may be incompatible.



Google Street view, facing south, of trees along Fort Crook Road in the aircraft approach and departure zone (Offutt AFB is on the left side)

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 issue was identified:

- **Missouri River management in the Upper Basin.** Entities that are responsible for managing the Upper Basin of the Missouri River and releasing water from dams upriver should coordinate with Offutt AFB and local jurisdictions to minimize flooding concerns.



JOINT LAND USE STUDY

Implementation Plan 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, Offutt AFB, state and federal agencies, local organizations, the general public and other stakeholders that own or manage land or resources in the region. Because the Offutt 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 compatible 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 are meant to address specific compatibility issues that are described in greater detail in Chapter 5 of the Offutt AFB JLUS Background Report. The issues are included before each set of strategies as a point of reference to what the strategies are addressing. They correspond to the issue numbers in the Chapter 5 of the Background Report for easy reference and can be used to read additional information on the specifics of the issues themselves.

The key to the implementation of strategies is the establishment of the JLUS Coordination Committee (see Strategy COM-2A) to oversee the execution of the JLUS. Through this committee, local jurisdictions, Offutt AFB, and other interested 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 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 certain geographic area for which the issue they address occurs (e.g. within the 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 state or federal law.
- Promote an orderly transition between community and military land uses so that land uses remain compatible.
 - Protect public health, safety, and welfare.
 - Maintain operational capabilities of military installations and areas.
 - Promote an awareness of the size and scope of military training areas to protect areas separate from the actual military installation (e.g., critical air space) used for training purposes.
 - Establish compatibility requirements within the designated area, such as requirements for sound attenuation or aviation easements.

The MCAs are used to define the geographic areas where the 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 regulations inappropriate for their location or circumstance.

These MCAs are recommended under Strategy LU-2A.

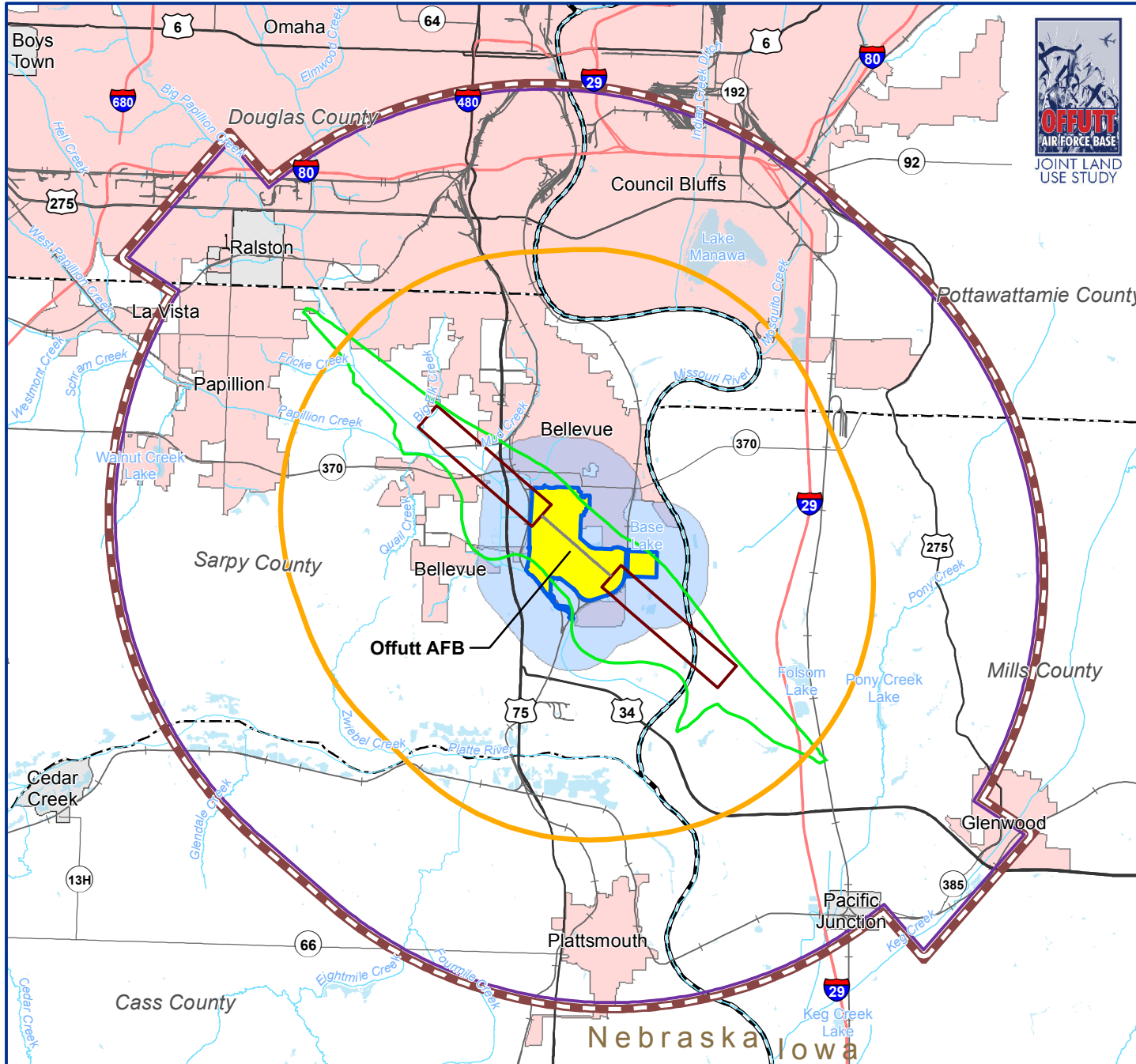
The proposed Offutt AFB Military Compatibility Area Overlay District (MCAOD) is an area that incorporates all of the MCAs. Implementation of these overlays requires jurisdictions to amend their zoning ordinances. The MCAOD is illustrated on Figure 8 and the individual MCAs are shown on Figures 9 through 13.

Military Compatibility Areas

In compatibility planning, the generic term “Military Compatibility Area” (MCA) is used to formally designate a geographic area where military operations may impact local communities, and conversely, where local activities may affect the military’s ability to carry out its mission(s). An MCA is designated to accomplish the following:

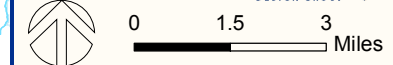


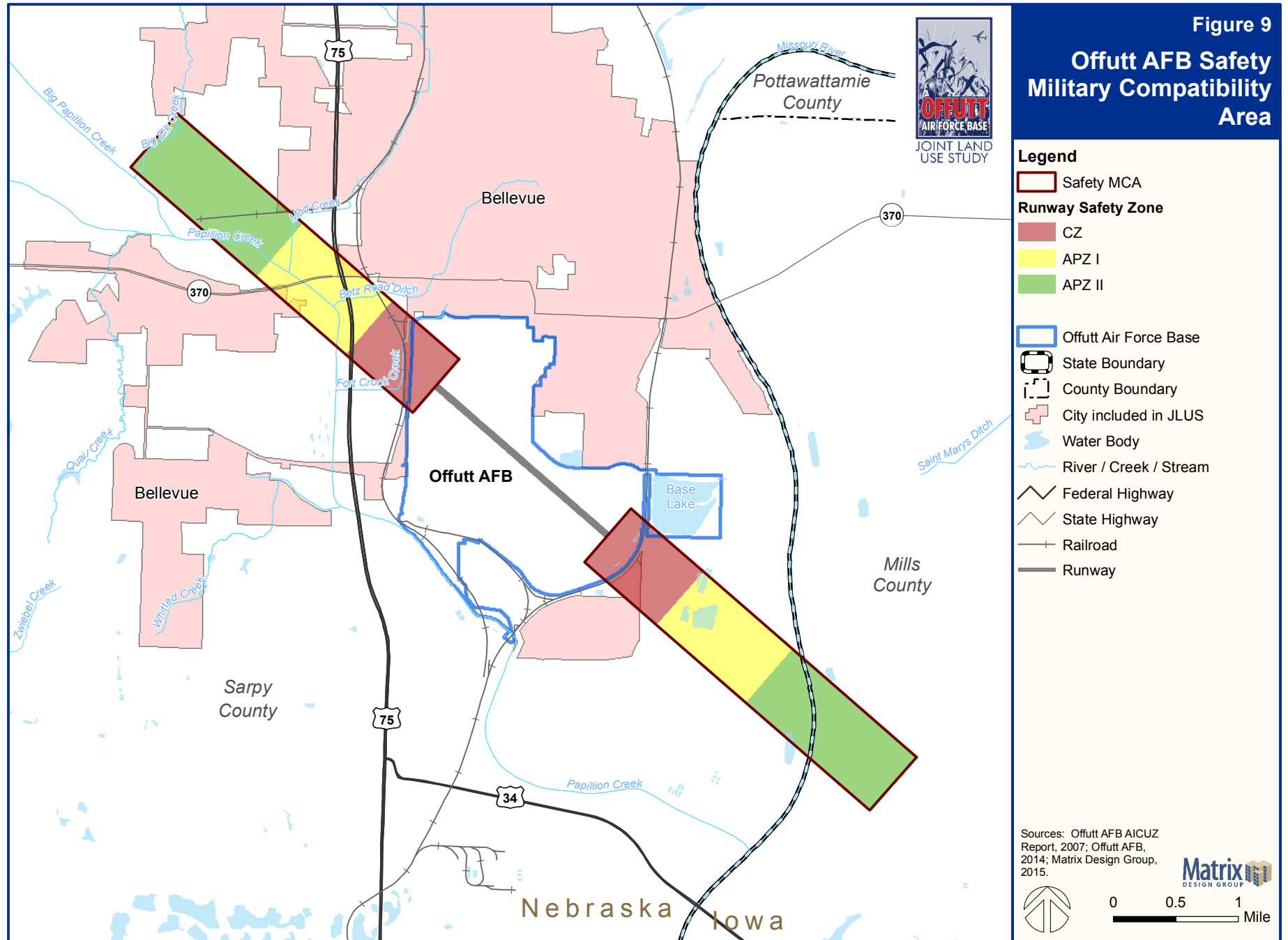
Figure 8
Offutt AFB Military
Compatibility Area
Overlay District

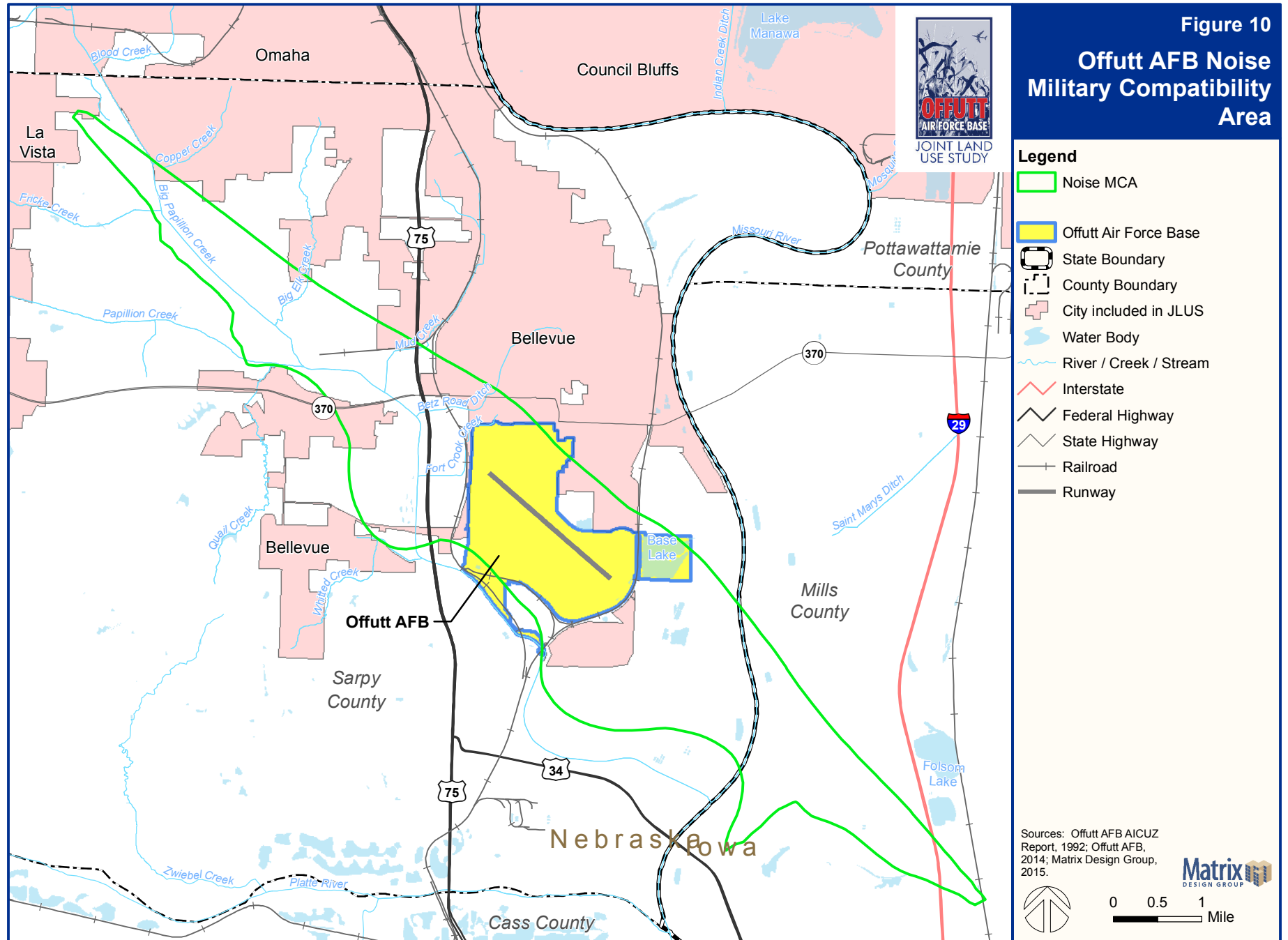


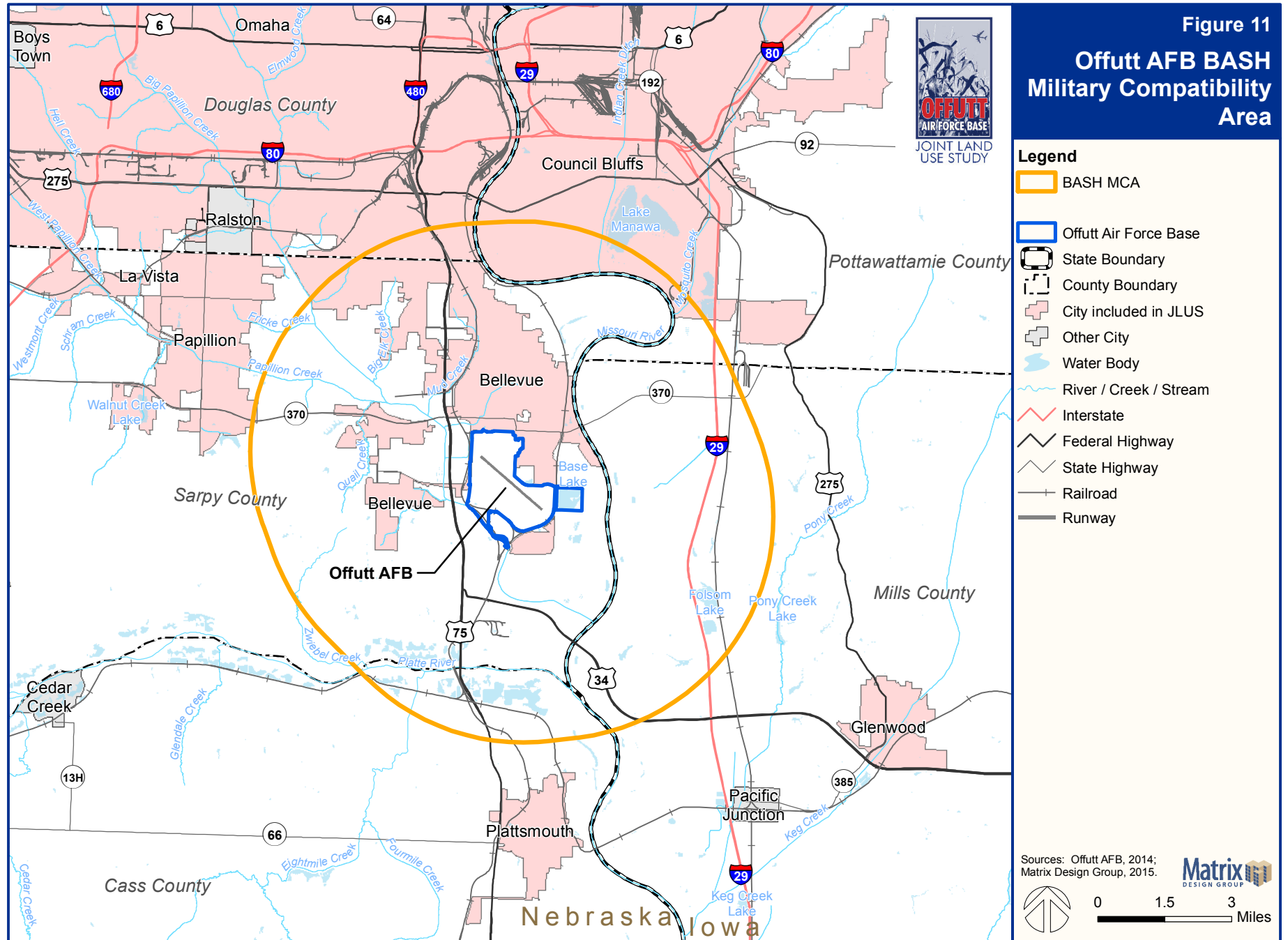
- Legend**
- MCAOD
 - Safety MCA
 - Noise MCA
 - BASH MCA
 - Imaginary Surfaces MCA
 - Land MCA (1 Mile)
 - Offutt Air Force Base
 - State Boundary
 - County Boundary
 - City included in JLUS
 - Other City
 - Water Body
 - River / Creek / Stream
 - Interstate
 - Federal Highway
 - State Highway
 - Railroad
 - Runway

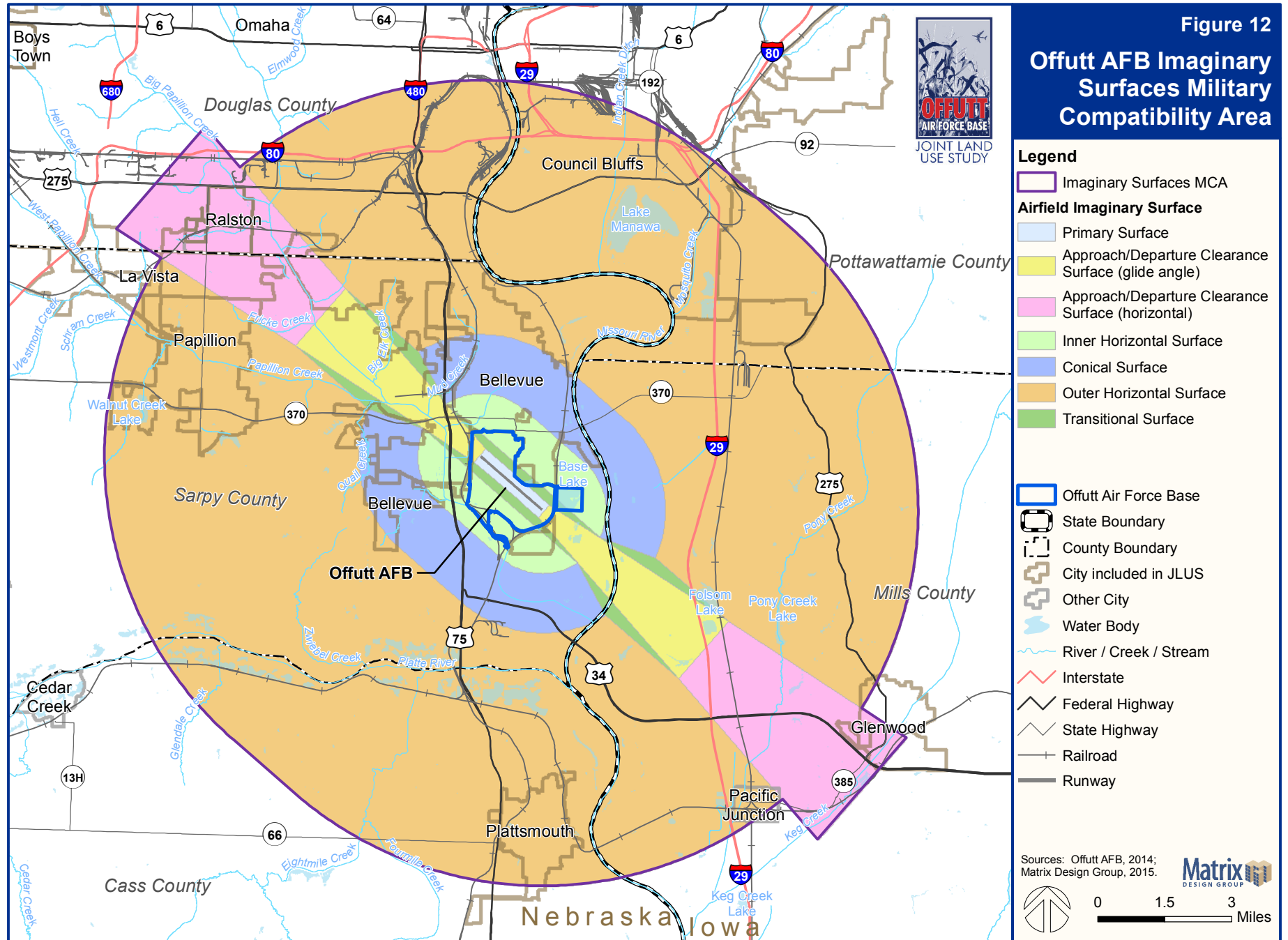
Sources: Offutt AFB AICUZ Report, 1992; Offutt AFB AICUZ Report, 2007; Offutt AFB, 2014; Matrix Design Group, 2015.

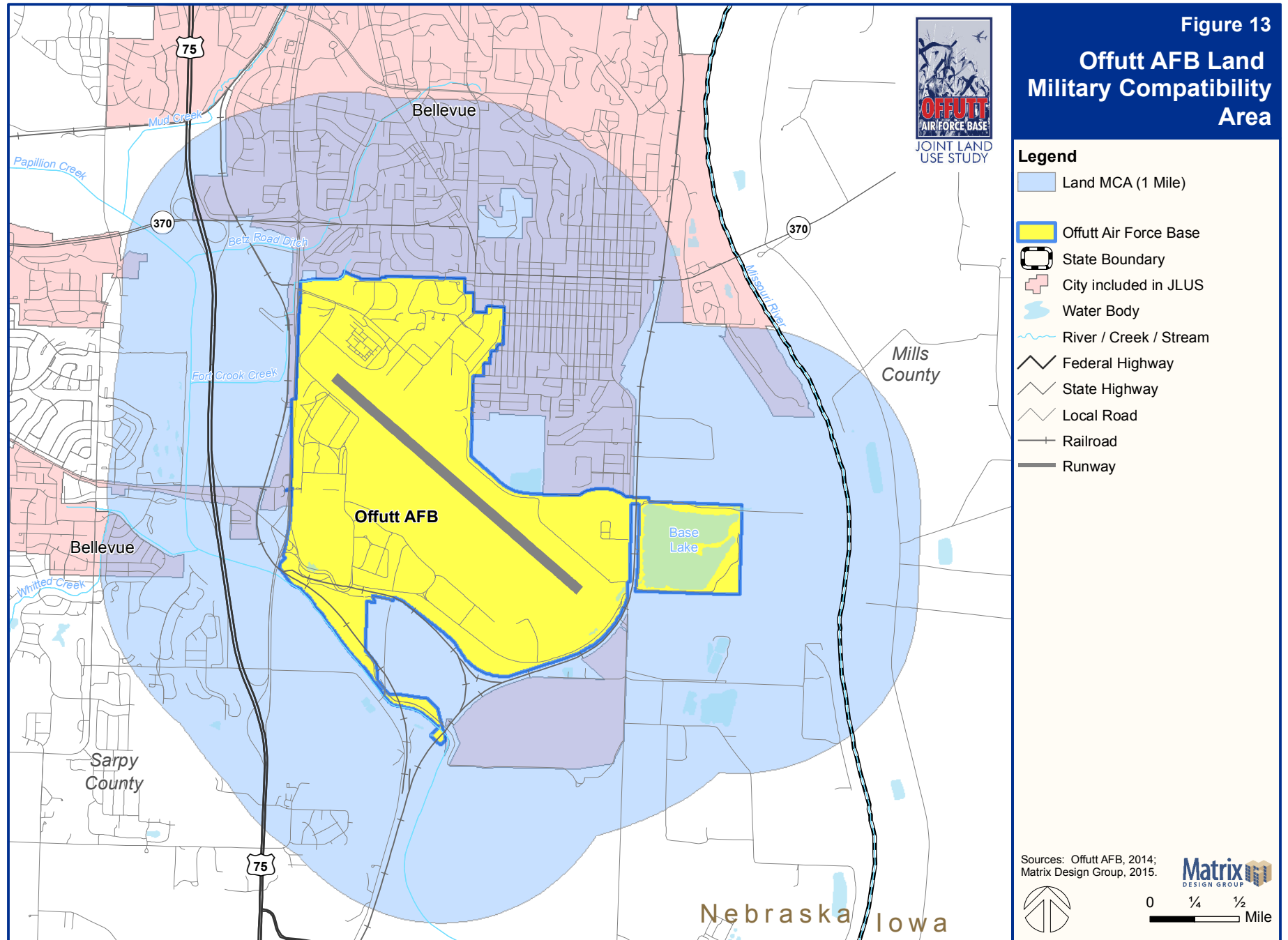












Safety Military Compatibility Area (Figure 9)

The proposed Safety MCA would regulate compatible land use types and densities / intensities within the Clear Zones (CZs) and Accident Potential Zones (APZs) I and II of Offutt AFB's runway. Each of these would be a subzone of the Safety MCA. The current location of each safety subzone is based on the airfield layout and air operations identified in Offutt AFB's AICUZ Report. The boundaries of each subzone may need to be amended when the AICUZ study is updated.

A Safety MCA is needed to prevent the development of incompatible land uses in areas with the greatest potential for an accident. These safety zones were identified as a result of the Air Force's guidance that defines APZs as areas where an aircraft accident is most likely to occur (in the unlikely event that one was to occur). The APZs follow departure, arrival, and pattern flight tracks and are based upon analysis of historical data.

Within the CZ, most types of land use are incompatible 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 an accident is remote, the Air Force recommends low density land uses within the APZs to ensure the maximum protection of public health and property.

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

Noise Military Compatibility Area (Figure 10)

Noise is often a concern to the public surrounding military installations with flying missions. The Noise MCA includes all land located off-installation within 1992 Offutt 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 MCA may be subject to sound attenuation measures to reduce interior noise impacts and achieve a maximum interior noise level of 45 dB DNL.

Without a requirement for sound attenuation via building code requirements, certain uses such as residential, and those that congregate large groups, including schools, healthcare facilities, and churches, are not compatible within areas that experience noise levels of 65 dB DNL or greater. Uses that are compatible within airport noise contours are office / retail and manufacturing / industrial when interior noise levels are less than 70 dB DNL. Local building codes can be used to ensure that noise-attenuation measures are incorporated in all new development within the Noise MCA.

BASH Military Compatibility Area (Figure 11)

The proposed Bird / Wildlife Aircraft Strike Hazard (BASH) MCA extends from the airport operational area at Offutt AFB for a radius of five miles. This MCA 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 interfere with training missions. The five mile distance associated with the BASH MCA is a Federal Aviation Administration (FAA) recommended standard for managing bird attractants around runways.

Imaginary Surfaces Military Compatibility Area (Figure 12)

The purpose of the Imaginary Surfaces MCA is to regulate 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 accident. Vertical obstructions that can affect flight safety include, but are not limited to, cell towers, power lines, wind turbines, buildings, and trees. The imaginary surfaces are explained in more detail in Chapter 3, Offutt AFB Operations in the Background Report.

Land Military Compatibility Area (Figure 13)

The Land MCA is designed to capture lands adjacent to Offutt AFB and is more for awareness purposes to keep landowners informed of the operations that may impact their quality of life. The Land MCA includes all land within one mile of the boundary of Offutt AFB.

How to Read the Implementation Plan

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

- avoid future actions, operations, or approvals that would cause a compatibility issue;
- eliminate or reduce the adversity of existing compatibility issues where possible, 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 in a table 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 14 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 in the table.

Issue or Strategy #. The issue # and strategy # 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-1, COM-1B, etc.).

Military Compatibility Area (MCA). This column indicates the applicable MCA in which the strategy should be applied, or if the strategy relates to the whole JLUS Study Area. The MCA geographies for the Offutt AFB strategies are defined in Strategy LU-2A. Some of the strategies are designated as "General", meaning that they do not have a specific geography associated with them.

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

Timeframe. This column indicates the projected timeframe 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 2016 / 2017 (within year of JLUS completion)
Mid-Term	Strategy proposed to be initiated in 2018 / 2019 (within 1-2 years of JLUS completion)
Long-Term	Strategy proposed to be initiated in 2020 / 2022 (3 to 5 years from JLUS completion)
On-going	An on-going implementation action

Responsible Party. At the right end of the strategy table are a series of columns, one for each jurisdiction, military entity, agency, and organization 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.

Issue / Strategy ID	Military Compatibility Area (MCA)	ISSUE / STRATEGY	Issue / Strategy ID	City of Bellevue, NE	City of Council Bluffs, IA	City of Glenwood, IA	City of Omaha, NE	City of Plattsmouth, NE	Cass County, NE	Douglas County, NE	Mills County, IA	Pottawattamie County, IA	Sarpy County, NE	Offutt AFB	MAPA	Other
COM-2		<p>Formalize communication and coordination between Offutt AFB and communities regarding new development</p> <p>There is a need for formal agreements or standard processes for including the Air Force in the review and approval of community development projects proposed within the JLUS Study Area. Although some communication occurs through an informal process, the lack of a designated point of contact and standard process that outlines response times and stakeholder responsibilities have resulted in a nominal response rate.</p>														
COM-2A	General	<p>Establish a JLUS Coordination Committee</p> <p>Establish a JLUS Coordination Committee to maintain efficient and effective coordination among the JLUS partners, oversee the implementation of JLUS recommendations, and enhance long-term coordination on military compatibility issues.</p> <p>This could be integrated into another advisory committee appropriate to the area and issues addressed.</p> <p>The JLUS Coordination Committee should meet on a regular basis as agreed upon by the Committee.</p> <p>To continue the momentum produced through the JLUS process, it is recommended that MAPA be the lead agency on developing and maintaining the JLUS Coordination Committee.</p> <p>Other partners: other agencies, departments, or entities deemed relevant and interested in participating</p>	Short-term	■	■	■	■	■	■	■	■	■	■	■	■	■

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

MCA: The MCA in which each strategy applies.

Strategy: Description of the strategy.

Timeframe: Year in which each strategy should be initiated.

- Short-term (2016 / 2017)
- Mid-term (2018 / 2019)
- Long-term (2020 / 2022)
- 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

Figure 14. How to Read JLUS Strategies

Issues / Strategies by Compatibility Factor *(Alphabetized by Factor)*

Issue / Strategy ID	Military Compatibility Area (MCA)	Issue / Strategy	Issue / Strategy ID	City of Bellevue, NE	City of Council Bluffs, IA	City of Glenwood, IA	City of Omaha, NE	City of Plattsmouth, NE	Cass County, NE	Douglas County, NE	Mills County, IA	Pottawattamie County, IA	Sarpy County, NE	Offutt AFB	MAPA	Other
AIR QUALITY (AQ)																
AQ-1	Proposed new ozone standards Proposed new ozone standards may be an issue since the Study Area is close to the new limit.															
AQ-1A	General	<p>Air quality monitoring Although not an issue today, it is recommended that all Offutt AFB JLUS partners be aware that air quality needs should be assessed on a continual basis to prevent air quality from becoming an issue in the future and to enact long term preventive measures by maintaining awareness of the different categories of pollutants. Other partners: Nebraska Department of Environmental Quality, Iowa Department of Natural Resources</p>	On-going	■	■	■	■	■	■	■	■	■	■	■		■
AQ-1B	General	<p>Air quality partnerships The JLUS Study Area communities should coordinate with Offutt AFB to develop an air quality working group (this could be part of the JLUS Coordination Committee [see Strategy COM-2A]) to enhance partnerships on air quality issues and develop programs for reducing emissions and maintaining levels of attainment. Other partners: Nebraska Department of Environmental Quality, Iowa Department of Natural Resources</p>	Mid-term	■	■	■	■	■	■	■	■	■	■	■		■

Issue / Strategy ID	Military Compatibility Area (MCA)	Issue / Strategy	Issue / Strategy ID	City of Bellevue, NE	City of Council Bluffs, IA	City of Glenwood, IA	City of Omaha, NE	City of Plattsmouth, NE	Cass County, NE	Douglas County, NE	Mills County, IA	Pottawattamie County, IA	Sarpy County, NE	Offutt AFB	MAPA	Other
AQ-1C	General	Investigate higher ozone concentration areas Special studies should be performed to investigate higher ozone concentration areas, such as manufacturing and industrial areas. Other partners: Nebraska Department of Environmental Quality, Iowa Department of Natural Resources	Mid-term	■	■	■	■	■	■	■	■	■	■	■		■
AQ-1D	General	Update the 2013 Nebraska Air Quality Report An update to the 2013 Nebraska Air Quality Report is needed in order to identify new ground ozone levels to see if they are in attainment. Other partners: Nebraska Department of Environmental Quality	Mid-term													■
ANTI-TERRORISM / FORCE PROTECTION (AT)																
AT-1	Future land development could allow line-of-sight views into Offutt AFB Future land development on the south side of the runway, near Harlan Lewis Road and the railroad, could cause security concerns regarding individuals being able to look in on military operations.															
AT-1A	Land	Identify locations of critical parcels Offutt AFB should look at developing a list of parcels that, if developed at a certain height, could allow viewing into the base. This should be done to mitigate Anti-terrorism / force protection (AT / FP) encroachment concerns and issues that could result from development occurring at heights that could view into sensitive areas of Offutt AFB.	Short-term											■		

Issue / Strategy ID	Military Compatibility Area (MCA)	Issue / Strategy	Issue / Strategy ID	City of Bellevue, NE	City of Council Bluffs, IA	City of Glenwood, IA	City of Omaha, NE	City of Plattsmouth, NE	Cass County, NE	Douglas County, NE	Mills County, IA	Pottawattamie County, IA	Sarpy County, NE	Offutt AFB	MAPA	Other
AT-1B	Land	<p>Acquisition easements</p> <p>If any appropriate parcels are identified through Strategy AT-1A, Offutt AFB can consider partnering with conservation groups to purchase easements to protect the land from future incompatible development.</p> <p>Other partners: Back to the River, conservation groups, Greater Omaha Chamber, Economic Development Partnership</p>	Long-term											<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
AT-1C	Land	<p>Strategically located screening to protect on-installation assets</p> <ul style="list-style-type: none"> Conduct strategic viewshed analysis to prioritize critical view corridors. Explore alternative and appropriate natural and man-made screening systems to protect sensitive activities and systems within Offutt AFB. Based on cost, determine appropriate DOD funding sources to implement priority screening areas. 	Mid-term											<input checked="" type="checkbox"/>		
AT-1D	Land	<p>Anti-Terrorism / Force Protection zoning overlay</p> <p>The City of Bellevue should consider a zoning overlay around Offutt AFB that limits heights and certain types of uses that could allow viewing into Offutt AFB.</p> <p>Other partners: Land owners / economic developers</p>	Long-term	<input checked="" type="checkbox"/>										<input type="checkbox"/>		<input type="checkbox"/>
AT-1E	Land	<p>“Eyes” on Offutt Program</p> <p>Sarpy County and the City of Bellevue should work with Offutt AFB to develop a citizen vigilance program to report suspicious activity near Offutt AFB to ensure the security of the base.</p>	On-going	<input checked="" type="checkbox"/>									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

Issue / Strategy ID	Military Compatibility Area (MCA)	Issue / Strategy	Issue / Strategy ID	City of Bellevue, NE	City of Council Bluffs, IA	City of Glenwood, IA	City of Omaha, NE	City of Plattsmouth, NE	Cass County, NE	Douglas County, NE	Mills County, IA	Pottawattamie County, IA	Sarpy County, NE	Offutt AFB	MAPA	Other
AT-1F	Land	Deterrents along Fort Crook Road and Harlan Lewis Road Offutt AFB should install parking barriers along Fort Crook Road and Harlan Lewis Road to minimize views into the base and protect the base from potential threats. "No Stopping" signage should also be installed along the shoulders.	Long-term	<input type="checkbox"/>										<input checked="" type="checkbox"/>		
AT-2	Hazardous materials pass by Offutt AFB The railroad that passes near the installation sometimes carries hazardous cargo that could impact the base if an accident occurred.															
AT-2A	General	Maintain emergency management plan Offutt AFB should maintain an emergency management plan to respond to a disaster should it occur, including working with local emergency responders and jurisdictions and designating points of contact. Offutt AFB would need to provide all agencies with details on the areas with potential impact concerns and describe the issues regarding the use of the hazardous materials before mitigation plans can be established. Other partners: Burlington Northern Santa Fe and Union Pacific Railroad	On-going	<input type="checkbox"/>									<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Issue / Strategy ID	Military Compatibility Area (MCA)	Issue / Strategy	Issue / Strategy ID	City of Bellevue, NE	City of Council Bluffs, IA	City of Glenwood, IA	City of Omaha, NE	City of Plattsmouth, NE	Cass County, NE	Douglas County, NE	Mills County, IA	Pottawattamie County, IA	Sarpy County, NE	Offutt AFB	MAPA	Other	
AT-2B	General	<p>Identify railroad point of contact Union Pacific Railroad and Burlington Northern Santa Fe should identify and provide contact information that Offutt AFB and local emergency responders can contact to get rail car manifests in the event of an emergency or inquiry so that responders know exactly what is on rail cars. Secondly, train engineers should share their manifests with local emergency responders during an emergency or accident. Other partners: Burlington Northern Santa Fe and Union Pacific Railroad</p>	Short-term														<input checked="" type="checkbox"/>
AT-3	<p>Closure of Bellevue Gate AT / FP response times outside the base are impacted when the Bellevue Gate is closed.</p>																
		This issue is currently managed and addressed appropriately, and no additional strategies are recommended.															
BIOLOGICAL RESOURCES (BIO)																	
BIO-1	<p>Zebra mussels in Base Lake An infestation of invasive zebra mussels has been introduced into Base Lake and previous eradication measures did not address re-infestations of the species.</p>																
BIO-1A	General	<p>Continue zebra mussel eradication project recommendations Offutt AFB should continue to implement the recommendations outlined in the 2009 Zebra Mussel Eradication Project Report and monitor for results.</p>	On-going											<input checked="" type="checkbox"/>			

Issue / Strategy ID	Military Compatibility Area (MCA)	Issue / Strategy	Issue / Strategy ID	City of Bellevue, NE	City of Council Bluffs, IA	City of Glenwood, IA	City of Omaha, NE	City of Plattsmouth, NE	Cass County, NE	Douglas County, NE	Mills County, IA	Pottawattamie County, IA	Sarpy County, NE	Offutt AFB	MAPA	Other
BIO-1B	General	Implement boat inspection program The boat inspection program proposed by the Nebraska Invasive Species Council (NISC) should be implemented to reduce the spread of zebra mussels and help minimize their populations. Other partners: Nebraska Game and Parks Commission, Nebraska Department of Environmental Quality, Nebraska Invasive Species Council	Short-term											<input type="checkbox"/>		<input checked="" type="checkbox"/>
BIO-1C	General	Coordination with state for funding Work with NDEQ and Nebraska Game and Parks Commission to identify potential state or federal funding sources that can be used to treat zebra mussel infestation in Base Lake. Other partners: Papio-Missouri River Natural Resources District, (P-MR NRD) Nebraska Game and Parks Commission, Nebraska Department of Environmental Quality, Nebraska Invasive Species Council	Short-term											<input type="checkbox"/>		<input checked="" type="checkbox"/>
BIO-2	Bird migratory routes Offutt AFB is within an important bird migratory route and many species of birds travel through the region during migration seasons. The presence of birds near the runway and within flight tracks presents potential dangers to pilots and aircraft.															
BIO-2A	BASH	Develop and distribute BASH educational materials Provide educational information to local jurisdictions and agencies in the region relative to reducing the potential for bird and wildlife attractants that may impede safe aircraft operations. Other partners: Nebraska Game and Parks Commission, Nebraska Department of Natural Resources, Iowa Department of Natural Resources	Short-term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Issue / Strategy ID	Military Compatibility Area (MCA)	Issue / Strategy	Issue / Strategy ID	City of Bellevue, NE	City of Council Bluffs, IA	City of Glenwood, IA	City of Omaha, NE	City of Plattsmouth, NE	Cass County, NE	Douglas County, NE	Mills County, IA	Pottawattamie County, IA	Sarpy County, NE	Offutt AFB	MAPA	Other
BIO-2B	BASH	Control bird and wildlife attractants near base 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: Nebraska Game and Parks Commission, Nebraska Department of Natural Resources, Iowa Department of Natural Resources	On-going	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input type="checkbox"/>
BIO-2C	BASH	BASH consideration in jurisdiction or agency projects All projects sponsored by a local jurisdiction or agency should consider bird attractants and require consultation with Offutt AFB representatives on the review and mitigation of significant direct and indirect bird attractant features that may be generated through the approval of development proposals. Other partners: Nebraska Game and Parks Commission, Nebraska Department of Natural Resources, Iowa Department of Natural Resources	On-going	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input type="checkbox"/>
BIO-2D	BASH	Modify zoning regulations for BASH Research and consider modifying zoning regulations and subdivision regulations to address bird attractant potential as part of project design and conditions of approval.	Long-term	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
BIO-2E	BASH	Increase surrounding landowner awareness Develop a detailed outreach program to surrounding landowners on the impacts of BASH and outline compatible solutions and techniques to minimize conflicts.	Mid-term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Issue / Strategy ID	Military Compatibility Area (MCA)	Issue / Strategy	Issue / Strategy ID	City of Bellevue, NE	City of Council Bluffs, IA	City of Glenwood, IA	City of Omaha, NE	City of Plattsmouth, NE	Cass County, NE	Douglas County, NE	Mills County, IA	Pottawattamie County, IA	Sarpy County, NE	Offutt AFB	MAPA	Other
CLIMATE ADAPTATION (CA)																
CA-1		Potential wetland flooding at Offutt AFB There are 14 wetlands that cover 147 acres on Offutt AFB that are regulated by the US Army Corp of Engineers (USACE). The base's location next to the Missouri and Platte Rivers also puts it in proximity to floodzones. During heavy rainfall, this area is prone to flooding, and flooding onto Offutt AFB may cause delays in missions and operations.														
CA-1A	General	Floodplain buffers around Offutt AFB Offutt AFB should ensure that floodplain protection buffers are in place around areas that could be impacted by flooding or heavy rainfall. Other partner: Papio-Missouri River Natural Resources District	On-going													■
CA-1B	General	Flood management through zoning The JLUS jurisdictions should ensure that zoning includes appropriate flood management measures so that as development continues, it does not impact flood control.		■	■	■	■	■	■	■	■	■	■			

Issue / Strategy ID	Military Compatibility Area (MCA)	Issue / Strategy	Issue / Strategy ID	City of Bellevue, NE	City of Council Bluffs, IA	City of Glenwood, IA	City of Omaha, NE	City of Plattsmouth, NE	Cass County, NE	Douglas County, NE	Mills County, IA	Pottawattamie County, IA	Sarpy County, NE	Offutt AFB	MAPA	Other
CA-2		Recertification is required for the levee system around Offutt AFB Due to changes in the base flood elevation of the Missouri River, Federal Emergency Management Agency (FEMA) has identified the need to raise the levee between two inches to several feet for it to be capable of protecting the installation. The Papio-Missouri River Natural Resources District (P-MR NRD) has been notified by FEMA, that if the levee is not fixed by 2017, the levee will be de-certified.														
CA-2A	General	Look into Readiness and Environmental Protection Integration funding Offutt AFB should work with P-MR NRD to look into utilizing Readiness and Environmental Protection Integration (REPI) funding to purchase easements or land for floodplain protection by expanding the footprints of the levees around Offutt AFB. Other partner: P-MR NRD	Mid-term											■		□
COORDINATION / COMMUNICATION (COM)																
COM-1		Lack of public awareness about Offutt AFB mission requirements While there is a good relationship between Offutt AFB and its surrounding communities, there is no formal communication process for informing nearby residents of the activities that occur at the base. This is especially important during unique activities that do not occur on a regular basis, such as emergency management training or disaster simulations.														
COM-1A	General	Establish communication procedures for mission activities and changes Offutt AFB should work with the JLUS jurisdictions and relevant agencies to establish procedures for coordination between the base and local jurisdictions / agencies / the public relative to base operations and changes to operations and activities. This will include:	Short-term	□	□	□	□	□	□	□	□	□	□	■		

Issue / Strategy ID	Military Compatibility Area (MCA)	Issue / Strategy	Issue / Strategy ID	City of Bellevue, NE	City of Council Bluffs, IA	City of Glenwood, IA	City of Omaha, NE	City of Plattsmouth, NE	Cass County, NE	Douglas County, NE	Mills County, IA	Pottawattamie County, IA	Sarpy County, NE	Offutt AFB	MAPA	Other
COM-1A (cont'd)		<ul style="list-style-type: none"> Define operations and changes in operations that warrant public knowledge, Identify points of contact for all coordination, Establish a formal procedure for responding to comments or questions from jurisdictions and the public, Establish a standard timeline for responses to address concerns, and Provide notice to Offutt AFB on all public activities that could impact mission readiness. <p>Consultation is expected to occur on activities in the defined MCAs, the installation should establish contacts and procedures for receiving notices and review opportunities on significant regional projects outside of the MCAs. Procedures should be reviewed annually and updated as appropriate by the JLUS Coordination Committee (see Strategy COM-2A).</p>														
COM-1B	General	<p>Encourage use of media methods to disseminate information</p> <p>This information should be made available on Offutt AFB's website and through other jurisdictions' public service announcement and media outlets methods.</p>	On-going	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
COM-1C	General	<p>Maintain and continue to utilize social media</p> <p>Offutt AFB should regularly maintain the Offutt AFB Facebook page and other social media pages to disseminate information about base activities and post contact information for visitors to contact the base if they have a question or concern.</p>	On-going											<input checked="" type="checkbox"/>		

Issue / Strategy ID	Military Compatibility Area (MCA)	Issue / Strategy	Issue / Strategy ID	City of Bellevue, NE	City of Council Bluffs, IA	City of Glenwood, IA	City of Omaha, NE	City of Plattsmouth, NE	Cass County, NE	Douglas County, NE	Mills County, IA	Pottawattamie County, IA	Sarpy County, NE	Offutt AFB	MAPA	Other
COM-1D	General	Open house / mission briefings Offutt AFB should conduct regular open houses / mission briefings to various interest groups and jurisdictions in the area to educate the public and businesses about the primary mission of the base including the land needed for the primary mission.	On-going											<input checked="" type="checkbox"/>		
COM-1E	General	Informational brochure Offutt AFB should develop and distribute an informational brochure describing the Air Force mission and the land needed to effectively conduct the mobilization mission. This brochure should be distributed to all the JLUS jurisdictions' public offices and be made available for download on the Offutt AFB website.	Short-term											<input checked="" type="checkbox"/>		
COM-1F	General	Good Neighbor Program Offutt AFB should conduct, on a bi-annual basis, a Good Neighbor Program where they send out letters to all adjacent property owners inviting them to a Offutt 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 maintenance events that may have an impact on the neighbors and whereby the adjacent property owners can provide the Air Force with any issues or questions they may have. This could be coordinated with the Offutt Advisory Committee to get the public involved and informed of the event. Other partner: Offutt Advisory Committee	Mid-term											<input checked="" type="checkbox"/>		<input type="checkbox"/>

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COM-1G	General	Include AICUZ information on community websites Update community websites regularly to educate the public on the AICUZ program and inform the public on installation changes that could affect residents.	Short-term	■	■	■	■	■	■	■	■	■	■	■		
COM-1H	General	Media announcement of unusual activities When possible, Offutt 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.	On-going											■		
COM-1I	General	Links on websites Each of the JLUS communities should include a link to Offutt AFB's website on their respective websites.	Short-term	■	■	■	■	■	■	■	■	■	■	■		

Issue / Strategy ID	Military Compatibility Area (MCA)	Issue / Strategy	Issue / Strategy ID	City of Bellevue, NE	City of Council Bluffs, IA	City of Glenwood, IA	City of Omaha, NE	City of Plattsmouth, NE	Cass County, NE	Douglas County, NE	Mills County, IA	Pottawattamie County, IA	Sarpy County, NE	Offutt AFB	MAPA	Other
COM-2	<p>Formalize communication and coordination between Offutt AFB and communities regarding new development</p> <p>There is a need for formal agreements or standard processes for including the Air Force in the review and approval of community development projects proposed within the JLUS Study Area. Although some communication occurs through an informal process, the lack of a designated point of contact and standard process that outlines response times and stakeholder responsibilities have resulted in a nominal response rate.</p>															
COM-2A	General	<p>Establish a JLUS Coordination Committee</p> <p>Establish a JLUS Coordination Committee to maintain efficient and effective coordination among the JLUS partners, oversee the implementation of JLUS recommendations, and enhance long-term coordination on military compatibility issues. This could be integrated into another advisory committee appropriate to the area and issues addressed. The JLUS Coordination Committee should meet on a regular basis as agreed upon by the Committee. To continue the momentum produced through the JLUS process, it is recommended that MAPA be the lead agency on developing and maintaining the JLUS Coordination Committee. Other partners: other agencies, departments, or entities deemed relevant and interested in participating</p>	Short-term	■	■	■	■	■	■	■	■	■	■	■	■	■

Issue / Strategy ID	Military Compatibility Area (MCA)	Issue / Strategy	Issue / Strategy ID	City of Bellevue, NE	City of Council Bluffs, IA	City of Glenwood, IA	City of Omaha, NE	City of Plattsmouth, NE	Cass County, NE	Douglas County, NE	Mills County, IA	Pottawattamie County, IA	Sarpy County, NE	Offutt AFB	MAPA	Other	
COM-2B	General	<p>Develop a memorandum of understanding (MOU) The JLUS communities should collaborate through the JLUS Coordination Committee (see Strategy COM-2A) to facilitate the development of a formal MOU that delineates the roles and responsibilities for each agency in the JLUS Study Area. This MOU should contain information such as:</p> <ul style="list-style-type: none"> • Point of Contact and contact information for each agency, • Role in addressing compatibility issues with the base, • Responsibility in addressing compatibility issues, • Community and military response times, and • Triggers for coordination and communication, e.g., infrastructure planning, water resources planning, economic development, etc. <p>Other partners: other agencies, departments, or entities deemed relevant and interested in participating</p>	Short-term	■	■	■	■	■	■	■	■	■	■	■	■	■	■
COM-2C	General	<p>Maintain a GIS data clearinghouse The counties and cities in the JLUS Study Area, as well as federal and state agencies and Offutt AFB should work collaboratively to develop a GIS clearinghouse to share GIS data, e.g., military footprints, existing land use, zoning, and other pertinent GIS data, to enable enhanced long-range compatibility planning. In addition, a protocol for accessing and updating the information should be developed to ensure accuracy and appropriate security measures are established.</p> <p>Other partners: federal and state agencies, as appropriate</p>	On-going	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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COM-2D	General	<p>Develop a resource management reference guide The JLUS partners should develop a brief reference guide providing information about the various agencies in the JLUS Study Area with their respective responsibilities. This guide should contain:</p> <ul style="list-style-type: none"> • Map(s) identifying the important resources in the area, and • Contact information for the agency representative that would help in cases of community-military compatibility. 	Short-term	■	■	■	■	■	■	■	■	■	■			
COM-2E	General	<p>Prepare and execute an MOU to foster JLUS implementation Use the MOU as the mechanism to confirm support among all willing jurisdictions / agencies to establish a JLUS Coordination Committee (see Strategy COM-2A).</p> <ul style="list-style-type: none"> • Representation on the JLUS Coordination Committee should consist of members from agencies represented in the JLUS process with land use authority as well as additional stakeholders, as necessary. • Reexamine membership and composition annually to ensure all stakeholders are represented equally in the implementation of the JLUS. <p>Other partners: other agencies, departments, or entities deemed relevant and interested in participating</p>	Short-term	■	■	■	■	■	■	■	■	■	■	■	■	■

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COM-2F	General	<p>Incorporate Offutt AFB as one of the agencies that review pre-development applications / proposals</p> <p>Enhance existing or establish an MOU between local jurisdictions and Offutt AFB to formalize a process that provides copies of certain types of development proposals, rezoning, and other land use or regulation changes for lands located within the MCAs to Offutt AFB for review and comment. Such review periods shall conform to existing community review periods for providing comment. This supports a proactive approach for identifying potential conflicts early in the development process. The process of formalizing Offutt AFB review and comment should include:</p> <ul style="list-style-type: none"> • Definition of project types that require review • Definition of project types that require military attendance 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 the military on all public hearings regarding projects identified for coordination <p>Procedures should be reviewed annually and updated as appropriate by the JLUS Coordination Committee (see Strategy COM-2A).</p>	Short-term	■	■	■	■	■	■	■	■	■	■			

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COM-2G	General	<p>Review of military planning documents Offutt AFB should provide public versions of key planning documents for review and comment prior to finalization. Key planning documents could include the following (list to be finalized by the JLUS Coordination Committee [see Strategy COM-2A] and Offutt AFB):</p> <ul style="list-style-type: none"> • AICUZ and other noise studies • Other documents as appropriate, and when agreed to be used for official use only 	Short-term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
COM-2H	General	<p>Establish internal information liaisons Each jurisdiction and Offutt AFB should, if they do not already, identify an internal liaison within their organization that is responsible for relaying information from outside parties to their organization to ensure that all entities are aware of pertinent information and information does not stop at one person.</p>	Short-term	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
COM-2J	General	<p>Public-Public and Public-Private partnerships Offutt AFB should work with the JLUS communities to utilize and enhance Public-Public and Public-Private partnership mechanisms.</p>	Short-term	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

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DUST / SMOKE / STEAM (DSS)																
DSS-1	Burning of native prairie Controlled burns of native prairie near Offutt AFB may impact pilot visibility.															
DSS-1A	General	Communication on planned burns Entities that oversee or conduct planned controlled burns, such as Nebraska Game and Parks Commission, Nebraska Department of Natural Resources, and Iowa Department of Natural Resources, should coordinate with Offutt AFB when they are planning burns within five miles of Offutt AFB to determine if the burn would interfere with Offutt AFB operations at the planned time. Other partners: Nebraska Game and Parks Commission, Nebraska Department of Natural Resources, Iowa Department of Natural Resources, local fire departments	On-going													
DSS-2	Potential industrial development south of Offutt AFB The land south of Offutt AFB could be developed with industrial uses that may impact pilot visibility.															
		See Strategy COM-2F														

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ENERGY DEVELOPMENT (ED)																	
ED-1	<p>Potential wind farm development in the region could interfere with military devices / operations Areas proximate to Offutt AFB have been identified by wind farm developers as an area of interest for potential alternative energy projects. The siting of wind farms within 10-30 miles of Offutt AFB could result in impacts to Air Force systems and operations, particularly communication infrastructure and frequency interference.</p>																
ED-1A	MCAOD	<p>Update comprehensive / master plans for military compatibility The jurisdictions should consider updating their comprehensive plans to incorporate military compatibility policies for the renewable energy development industry to ensure the jurisdictions and other relevant agencies are included in potential development discussions. Offutt AFB should be included in such discussions as well.</p>	Long-term	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
ED-1B	General	<p>Coordinate with DOD Siting Clearinghouse The DOD Siting Clearinghouse requirements and standards published in Title 32, Code of Federal Regulations, Part 211 shall advise and guide the process to facilitate the early submission of renewable energy project proposals to the Clearinghouse for military mission compatible review. Amend applicable local planning documents (general plans, regional 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 Clearinghouse to ensure</p>	On-going	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

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ED-1B (cont'd)		compatibility with Offutt AFB's operations. If JLUS communities become aware of any wind energy development projects, they should get contact information for the developer and inform them of the need to coordinate with the DOD Clearinghouse.														
ED-1C	General	Identify and map locations suitable for wind energy development Identify and publish locations for alternative energy development that are ideal for wind developers as well as compatibility with military operations. Develop a "Red, Yellow, Green" map that communicates and illustrates specific locations where structures that exceed a mutually agreed upon height should be prohibited to avoid incompatibility Offutt AFB operations.	Long-term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
ED-1D	General	Coordinate with wind developers to reach an agreement that supports wind energy and military missions Seek local support to develop agreements between the military, JLUS communities, and wind energy developers that can be used to support wind projects by identifying conditions that will allow for mission sustainment and economic feasibility of proposed projects.	Mid-term	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
ED-2	Potential solar development in the region could impact pilot visibility Certain types of solar energy systems could interfere with pilot visibility if they are located in areas that cause glare or reflection into flight paths.															
ED-2A	MCAOD	Regulations for non-reflective panels The JLUS communities should update their zoning codes to require that panels within five miles of Offutt AFB be constructed with non-reflective technology.	Long-term	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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ED-2B	MCAOD	<p>No solar concentration</p> <p>The JLUS communities should consider ordinances that regulate the concentration of commercial solar energy systems within five miles of Offutt AFB.</p>	Long-term	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
ED-2C	MCAOD	<p>Develop solar siting guidelines</p> <p>Develop guidelines for proper siting and use of appropriate solar technologies near airfields, flight corridors, and beneath military airspace that include:</p> <ul style="list-style-type: none"> • 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. 	Long-term	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
		See Strategies ED-1A and ED-1B														

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FREQUENCY SPECTRUM CAPACITY (FSC)																
FSC-1	Data bandwidth usage The 55th Wing, STRATCOM, and the 557th Weather Wing are all heavily dependent on data bandwidth.															
FSC-1A	General	Regional coordination on future needs Offutt AFB, the JLUS jurisdictions, and the federal government should coordinate on future data bandwidth needs to ensure there is sufficient capacity for the future. Other partners: Chamber of Commerce, FCC, National Telecommunications and Information Administration, Office of Spectrum Management, Federal Aviation Administration Spectrum Engineering Services Office	Short-term	■	■	■	■	■	■	■	■	■	■	■	■	■
FREQUENCY SPECTRUM IMPEDANCE / INTERFERENCE (FSI)																
FSI-1	Local radio stations may cause interference with Offutt AFB operations There is a potential for radio frequency interference, including the local KIMI radio station, to interfere with operations at Offutt AFB or aircraft instrumentation if they are on a similar frequency to one used by the base.															
FSI-1A	General	Refer applications and permit requests Refer any applications or requests for a communications tower or radio transmitting use within 10 miles of Offutt AFB to the base for review.	On-going	■	■	■	■	■	■	■	■	■	■	■		

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FSI-2		Growing communities and increased usage of electronic devices could interfere with military frequencies As communities grow around Offutt AFB and its off-site remote transmitter sites, Elkhorn and Scribner, there is likely to be an increase in wireless devices and other types of devices that may pose frequency interference concerns for Offutt AFB operations.														
FSI-2A	General	Develop informational brochure Offutt AFB should consider developing an informational brochure about the frequency interference impacts. The brochure should be distributed to public offices of jurisdictions, available on the Offutt AFB website, and made available in hard copy for open houses and other mission briefings.	Mid-term											■		
FSI-2B	General	Acquire and improve RF spectrum analysis technology devices Pursue acquisition and development of “RF spectrum analyzer” technologies used to detect interference between frequency bands. This tool can be used to identify interference from on-installation sources including military and public/commercial users.	Long-term											■		
FSI-2C	General	Ensure compatible frequencies The Federal Communications Commission is the government entity responsible for managing frequency usage. The military is assigned certain frequencies to use that generally do not interfere with civilian uses. The continued usage of only assigned frequencies should ensure no interference between military and civilian uses. Other Partner: Federal Communications Commission.	On-going											■		■

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		See Strategy FSC-1A														
HOUSING AVAILABILITY (HA)																
HA-1	Housing options for Offutt AFB personnel Local jurisdictions' growth policies do not specifically address military workforce housing needs and the military has not provided adequate information on housing demand by location.															
HA-1A	General	Inform communities of Air Force housing needs Offutt AFB should work with the local communities to provide them information on where personnel that work at Offutt AFB live and provide them information on personnel housing needs within the communities.	Short-term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
HA-1B	General	Update housing elements and plans The JLUS communities should update their housing elements within their comprehensive plans to incorporate a more realistic set of numbers (provided by Offutt AFB) associated with the demand from Offutt AFB personnel and military families who live in the communities. The numbers should include current occupancy rates and waiting list rates. This will enable a more accurate picture of need relative to housing needs in this area for this particular group.	Long-term	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

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HA-1C	General	<p>Inform communities about Offutt AFB housing services Offutt AFB should inform local realtor associations about its housing services and how new personnel are informed of local housing options, in order to promote housing in local communities. Other partners: Omaha Area Board of Realtors, Southwest Iowa Association of Realtors</p>	Short-term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
INFRASTRUCTURE EXTENSIONS (IE)																
IE-1	<p>Infrastructure improvements / extensions may induce growth close to Offutt AFB The new US Highway 34 extension may provide mutual benefits for connecting surrounding counties but also has the potential to induce heavy traffic due to an increase in capacity. The completion of Highway 34 corridor may spur new development south of Offutt AFB, most likely industrial, which may be incompatible with the base's operations or pose safety concerns for the aircraft. The extension of additional / new services to the base could create the potential for growth inducement in areas subject to impacts from Offutt AFB activities and operations.</p>															
IE-1A	MCAOD	<p>Monitor development or increase in usage of Highway 34 Offutt AFB should work with Sarpy County and Mills County to monitor increases in usage of Highway 34 and identify any proposed development or land transactions in the area south of Offutt AFB.</p>	On-going								<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>		
IE-1B	MCAOD	<p>Encourage compatible land development Work with Chamber of Commerce to promote and encourage economic development along Highway 34 that is compatible with Offutt AFB operations. Other partners: Chambers of Commerce</p>	On-going	<input checked="" type="checkbox"/>										<input type="checkbox"/>		<input checked="" type="checkbox"/>

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		See Strategy COM-2F														
LAND / AIR / SEA SPACES (LAS)																
LAS-1	Non-military drones Due to the lack of coordination with the FAA and / or Offutt AFB, non-military drones could interfere with military operations at Offutt AFB.															
LAS-1A	Imaginary Surfaces	Enforcement and fines Work with the FAA to look into developing an enforcement and fine program for unauthorized drone usage. Other partner: FAA	Mid-term	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
LAS-1B	Imaginary Surfaces	Develop information on usage Offutt AFB should work with the FAA to develop information on proper usage of drones near Offutt AFB Other partner: FAA	Mid-term											<input type="checkbox"/>		<input checked="" type="checkbox"/>
LAS-1C	Imaginary Surfaces	Enact drone ordinances The JLUS jurisdictions should work with their respective State Legislations to consider enacting drone ordinances that dictate where and how drones can be used, based on the outcome of LAS-1B. Other partners: Nebraska State Legislation, Iowa State Legislation	Long-term	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>

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LAS-2		<p>Potential for runway expansion Due to topographic features on the north end of the runway and the need for runway over runs, there is a desire to expand the runway to the southeast to protect future operations and missions. This would require additional standoff distances outside the current base boundaries.</p>														
LAS-2A	Safety	<p>Look into possibility of land acquisition Offutt AFB should look into the possibility of land acquisition to expand the runway to the southeast (runway and Clear Zone area).</p>	Long-term											■		
LAS-2B	Safety	<p>Protect potential future safety zone areas The City of Bellevue, Sarpy County, and Mills County should include a zoning overlay to protect potential expanded Clear Zones and Accident Potential Zones based on potential future expansion of the runway.</p>	Long-term	■						■		■			□	
LAS-2C	Safety	<p>Relocation of railroad tracks Offutt AFB, the City of Bellevue, and Burlington Northern Santa Fe Railroad should discuss the possibility of relocating the existing railroad tracks around the east side of Base Lake so that it is far enough away to be able to expand the runway and still maintain the necessary standoff distance for safety. Other partner: Burlington Northern Santa Fe Railroad</p>	Long-term	■									■			■

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LAND USE (LU)																
LU-1	Offutt AFB AICUZ Study land use recommendations adoption Not all of the communities around Offutt AFB utilize the AICUZ recommendations for land use development in aircraft operational areas, which may allow for incompatible development to occur in some areas.															
LU-1A	MCAOD	Update plans and amend regulations with AICUZ recommended land uses The JLUS jurisdictions should update comprehensive plans and amend zoning regulations to incorporate the AICUZ recommended land uses in the safety and noise zones.	Long-term								■		■	□		
LU-1B	MCAOD	Update local jurisdiction comprehensive plans to include military compatibility policies that support and promote compatible land uses Update and adopt the jurisdiction's future land use map, and supportive goals, objectives, and policies that encourage a compatible land use pattern for new development and appropriate capital improvement investments. Include Offutt AFB as one of the stakeholders in the development of the plan.	Long-term								■		■	□		
LU-1C	MCAOD	Update local jurisdiction zoning regulations Update 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 LU-1B.	Long-term								■		■	□		

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LU-1D	MCAOD	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 with, and do not pose a safety hazard to, air operations in the region.	On-going	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
LU-1E	MCAOD	Establish state legislation The JLUS communities should work with the Nebraska and Iowa Legislatures to look into the possibility of establishing state legislation that requires adherence to AICUZ recommendations. Other partners: Nebraska and Iowa Legislature	Long-term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
LU-2	Additional growth near military operating areas may impair the use of Offutt AFB aviation assets Undeveloped land in the vicinity of Offutt AFB, such as within the approach and departure corridors, has the potential to be developed with incompatible uses that could impact the ability to safely carry out missions.																
LU-2A	MCAOD	Define and establish Military Compatibility Areas Create a Military Compatibility Area Overlay District (MCAOD) containing Military Compatibility Areas (MCAs) that reflect the types and intensity of compatibility issues. The MCAOD is the collective geographic area of all of the MCAs combined. The MCAs should be used by local jurisdictions to identify areas where specific compatibility issues are more likely to occur.	Mid-term	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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LU-2A (cont'd)		<p>Implementation of the MCAOD and associated strategies for these zones will:</p> <ul style="list-style-type: none"> • 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 • Create a compatible mix of land uses • Promote an orderly transition and rational organization of land use around military airfields <p>The MCAs are defined as follows:</p> <ul style="list-style-type: none"> • MCA-Safety – Includes the Clear Zone (CZ) and Accident Potential Zones (APZs) I and II • MCA-Noise – Includes areas within the 65 dB contour for aircraft noise, as identified by the 1992 Air Installation Compatible Use Zone (AICUZ) Report • MCA-BASH – Includes an area within 5 miles of the airport operational area at Offutt AFB, an area where the majority of bird strikes are statistically likely to happen • MCA-Imaginary Surfaces – Includes land under the imaginary surfaces for the runway at Offutt AFB • MCA-Land – Composed of a one-mile buffer around the boundary of Offutt AFB • MCAOD – This is made up of the outermost boundary 														

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LU-2A (cont'd)		<p>of all the MCAs.</p> <ul style="list-style-type: none"> General – This has no geographic area associated with it, but is included for general strategies <p>To assist in this effort, geographic information system (GIS) files of these boundaries can be obtained from the Metropolitan Area Planning Agency (MAPA) following finalization of this JLUS and approval of these MCAs. Updates to the data relative to noise contours shall be provided by Offutt AFB as a result of significant changes that support a public release of an updated AICUZ Study.</p> <p>Where appropriate, the jurisdictions should incorporate the MCAOD and MCA boundaries on their zoning map and future land use maps and include the zones on their websites for easy access by the public.</p>														
LU-2B	MCAODs	<p>Maintenance and Update of MCAs</p> <p>Offutt AFB should provide updated information to the JLUS Coordination Committee (see Strategy COM-2A) when changes in operations or circumstances result in the need to update or modify one of the MCA boundaries. The JLUS Coordination Committee will be responsible for making a recommendation to members to incorporate these changes into appropriate plans, regulations, and policies.</p>	On-going	■	■	■	■	■	■	■	■	■	■			

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LU-2C	MCAOD	Prepare and execute a formal notification MOU for development proposals Utilize the MOU to identify and describe a formal development notification process among the JLUS jurisdictions and Offutt AFB and outline the stage in the development coordination process timeline where a formal response is required by Offutt AFB.	Short-term	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
LU-2D	General	Economic development marketing Develop economic development marketing guidelines that identify the type of industries that are compatible with Offutt AFB mission and the type of industries that are not compatible with the military mission. Other partners: Chambers of commerce	Short-term											<input type="checkbox"/>		<input checked="" type="checkbox"/>
LU-2E	MCAOD	US Army Corps of Engineer lands transfer to Offutt AFB If the US Army Corps of Engineers ever releases their ownership on land adjacent to Offutt AFB in the future, the land should be transferred to the Air Force for continued protection. Other partner: US Army Corps of Engineers	On-going											<input type="checkbox"/>		<input checked="" type="checkbox"/>
LU-2F	MCAOD	Land uses on US Army Corps of Engineer property Land uses on US Army Corps of Engineers-owned property should be regulated to minimize, to the extent possible, bird-attracting uses. Other partner: US Army Corps of Engineers	On-going											<input type="checkbox"/>		<input checked="" type="checkbox"/>

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LEGISLATIVE INITIATIVES (LEG)																
LEG-1	Multiple jurisdictional authority on portions of Offutt AFB There are multiple jurisdictional authorities on portions of Offutt AFB in the northwest corner that place the area under legal jurisdiction of the Sarpy County authorities.															
LEG-1A	General	Proprietary jurisdiction Sarpy County and Offutt AFB should develop a memorandum of understanding to give Offutt AFB proprietary jurisdiction over law enforcement of the land located on Offutt AFB.	Short-term											<input checked="" type="checkbox"/>	<input type="checkbox"/>	
LEG-1B	General	Transfer jurisdiction to Offutt AFB Sarpy County should complete steps to legally transfer jurisdiction of the land to Offutt AFB.	Mid-term											<input checked="" type="checkbox"/>	<input type="checkbox"/>	
LEG-2	Drop in the percentage of military children enrolled in Bellevue School District schools The reduction in the percentage of military student enrollment within Bellevue schools is due to an increase in civilian students causing a reduction in percentage of military students and alternate housing options for military families outside of Bellevue. The reduction of percentage of military students has resulted in Bellevue no longer being defined as a “highly impacted” community for military students and decreased the Bellevue budget by \$5 million dollars, which may cause future constraints that will impact classroom sizes and availability of new supplies.															
		See Strategies HA-1B and HA-1C														

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LIGHT AND GLARE (LG)																
LG-1	Lighting impacts from future development around Offutt AFB															
	Increased development around Offutt AFB may include lighting systems that are incompatible with nighttime operations at the base.															
LG-1A	General	<p>Dark Skies Ordinances</p> <p>The City of Bellevue and Mills County should consider adopting “Dark Skies” ordinances (or including these concepts into their existing regulations) that minimize urban sky glow and the potential for light trespass onto adjacent properties. Develop specific zoning regulations for light encroachment issues adjacent to the installation boundary. Develop standard conditions of approval to protect night skies from significant increases in ambient light and glare. This includes designs that ensure lighting is limited to illuminating the site in question (no spill over lighting), no uplighting, require specific siting locations of lighting fixtures so wasted light is not reflected upwards, and lighting should be designed to direct light downward and fixtures be shielded.</p> <p>The lighting ordinance should also include regulation of lighting such as LED billboards in important flight paths and the approach and departure corridors.</p> <p>Lastly, the ordinance should include more strict guidelines within the Offutt AFB runway approach patterns.</p>	Long-term	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>			<input type="checkbox"/>		

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NOISE (NOI)																
NOI-1	Noise from aircraft operations The aircraft operations that occur at Offutt AFB produce noise that can be heard outside the boundaries of the base, within surrounding communities.															
NOI-1A	Noise	Update comprehensive plans and amend zoning regulations for noise attenuation standards Sarpy County and Mills County should update their comprehensive plans and amend their zoning regulations to comply with the recommended guidelines from the 1992 Offutt AFB AICUZ noise contours (Bellevue uses the previous 1992 contours, which should be the basis used by other communities).	Long-term								■		■			
NOI-1B	Noise	Amend building codes Amend the Building Code to require sound attenuation to achieve an interior noise level of 45 dB for any new buildings or significant changes or additions to current buildings located within the 65 dB or louder noise contours.	Long-term	■							■		■			
NOI-1C	Noise	Involve JLUS communities staff in AICUZ revisions Staff from the JLUS communities within noise contours should be consulted in any AICUZ updates to determine actual incompatibility of existing structures in noise zones based on densities and construction methods used.	On-going	□							□		□	■		

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ROADWAY CAPACITY (RC)																
RC-1	Potential increase in employee traffic following the completion of the STRATCOM building When it is completed, Offutt AFB's new STRATCOM building may increase the amount of traffic outside the STRATCOM Gate, which may impact local civilian traffic.															
RC-1A	Land	<p>Access planning If queuing has potential to back up onto major arterials, develop alternative strategies that can reduce traffic at peak hours, such as:</p> <ul style="list-style-type: none"> • Allowing personnel access while controlling civilian and visitor access, • Staggered work reporting times, • Alternative gate access points for specific types of traffic, • Main gate design improvements, and • Right-of-way acquisition for intersection improvements. 	Mid-term											■		
RC-1B	Land	<p>Conduct traffic impact analysis Offutt AFB should work with the Nebraska Department of Transportation, City of Bellevue, and Sarpy County to develop a traffic impact analysis to quantify impacts from increased traffic and future Level of Service along Fort Crook Road and Capehart Road. Other partner: Nebraska Department of Roads</p>		□									□	□		■

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RC-1C	Land	Review Offutt AFB gate access After the STRATCOM building is completed, review Offutt AFB access gate operations and hours, and consider adjusting operations to maximize gate efficiency.	Mid-term											<input checked="" type="checkbox"/>		
RC-1D	General	Promote carpool programs Offutt AFB should promote and incentivize park-and-ride and carpool programs to reduce the number of vehicles entering through the gates during heavy traffic times.	Short-term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
RC-1E	General	Continue Staggered work shift starts STRATCOM and Offutt AFB should continue to utilize and optimize staggered work shift start times to spread out the number of personnel coming onto Offutt AFB and reduce vehicle volumes during peak traffic times.	Long-term											<input checked="" type="checkbox"/>		
RC-1F	Land	Perform a traffic study When the new STRATCOM facility becomes operational and traffic patterns on-base change, Offutt AFB should perform a traffic evaluation study on-base to see the actual impacts of the increased vehicle volume and the average wait time for vehicles in the queue. Follow-up to this would be the establishment of triggers that when a certain threshold of wait time is reached, additional actions are considered to reduce vehicle volumes at any given time.	Long-term	<input type="checkbox"/>										<input checked="" type="checkbox"/>		

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RC-1G	General	Bicycle facility enhancements Offutt 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, and a biking rewards program that provides items such as meal vouchers or other incentives.	Mid-term											■		
RC-1H	General	Bicycle ride share program If the need arises, Offutt AFB should look into the possibility of establishing a bike share program, where users can rent or check out a bike for a duration and return it, either to the same location, or to another bike share lot.	Mid-term											■		
RC-2	Highway projects may increase commuting traffic from areas south of Offutt AFB The expansion of Highway 75 and completion of Highway 34 may cause an increase in traffic from employees commuting to Offutt AFB from Plattsmouth, Buccaneer Bay, Beaver Lake, Glenwood, and other areas south of the base.															
		This issue is currently managed and addressed appropriately, and no additional strategies are recommended.														
SAFETY ZONES (SA)																
SA-1	Habitat for wildlife surrounding Offutt AFB Vegetation and water sources, including the Schilling Wildlife Management Area, Gifford Point Wildlife Management Area, Base Lake, Catfish Lake, Platte River, and Missouri River nearby Offutt AFB can promote nesting habitats for birds and pose a safety hazard for flight operations.															
		See Strategies BIO-2A, BIO-2B, BIO-2C, BIO-2D, and BIO-2E														

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SA-2		Existing uses in runway safety zones There are some incompatible uses that currently exist within the runway safety zones that were established prior to the AICUZ zoning overlay.														
		This issue is currently managed and addressed appropriately, and no additional strategies are recommended.														
VERTICAL OBSTRUCTIONS (VO)																
VO-1		Height of nearby trees Tree height obstructions are a concern for the air operations at Offutt AFB.														
VO-1A	Imaginary Surfaces	Develop tree height regulations ordinance The City of Bellevue should develop an ordinance to maintain tree heights within the vicinity of Offutt AFB to ensure safe operations.	Mid-term	■										□		
VO-2		Height of future development Lands within the airfield imaginary surfaces have the potential for development that is taller than the recommended heights and may be incompatible.														
VO-2A	Imaginary Surfaces	Amend zoning for imaginary surfaces heights and slopes The jurisdictions in the JLUS Study Area should amend zoning documents to comply with FAA and Air Force vertical obstruction guidelines, more specifically with the FAA imaginary surfaces associated with Offutt AFB's airfield. These surfaces are more restrictive and provide for greater safety of the public, pilots, and aircraft. The imaginary surfaces include slopes and heights that are allowable from various distances from the airfield. The zoning documents should incorporate the slopes and heights associated with each imaginary surface.	Long-term	■	■	■	■	■	■	■	■	■	■	■	□	

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VO-2B	Imaginary Surfaces	Discourage placement of tall structures within safety flight corridors The JLUS jurisdictions should discourage placement of cell towers, above-ground electrical transmission lines, wind turbines, and other structures with heights exceeding 200 feet from locating in an area that obstructs approach and departure corridors.	On-going	■	■	■	■	■	■	■	■	■	■	□		
VO-2C	Imaginary Surfaces	Foster enhanced public awareness of military flight paths through accurate mapping Provide an accurate electronic map of the flight paths utilized by Offutt AFB for inclusion on applicable planning efforts to any of the surrounding local, county, regional and state governments that formally request them and agree to use them for official use only.	Mid-term											■		
VO-2D	Imaginary Surfaces	Ensure FAA Part 77 compliance For all new, redeveloped or rehabilitated structures (including electrical transmission towers/lines, cellular and radio transmission towers, etc.), ensure compliance with FAA 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 with, and do not pose a safety hazard to, air operations in the region. Other partners: Omaha Public Power District, Nebraska Public Power District, Iowa Public Power District	On-going	■	■	■	■	■	■	■	■	■	■			■

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WATER QUALITY / QUANTITY (WQQ)																	
WQQ-1	Missouri River management in the Upper Basin Entities that are responsible for managing the Upper Basin of the Missouri River and releasing water from dams upriver should coordinate with Offutt AFB and local jurisdictions to minimize flooding concerns.																
WQQ-1A	General	<p>Develop a comprehensive and integrated flood management plan Offutt AFB should work with the JLUS jurisdictions and other agencies to develop a comprehensive and integrated flood management plan to identify:</p> <ul style="list-style-type: none"> • 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. <p>Other partners: P-MR NRD, Nebraska Game and Parks Commission, Back to the River</p>	Long-term	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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