



# **Joint Land Use Study**





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



---

# Seymour Johnson and Dare County Range

# JOINT LAND USE STUDY

---

## *Background Report*

*Prepared Under Contract with:*



North Carolina Department of Commerce  
301 N. Wilmington Street  
Raleigh, North Carolina 27601-1058  
Phone: (919) 814-4676

*Prepared by:*



May 2017

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





# Acknowledgements

## Policy Committee

---

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

**Chuck Allen, Mayor**

City of Goldsboro

**Colonel Brian Armstrong, Vice-Commander, 4th Fighter Wing**

Seymour Johnson AFB

**Colonel Andrew Bernard, Former Vice-Commander, 4th Fighter Wing**

Seymour Johnson AFB

**Mike Bryant, Refuge Manager**

Alligator River National Wildlife Refuge

**David Clegg, County Manager / Committee Chair**

Tyrrell County

**Stewart Cox, Civilian Deputy Commander, 4th Mission Support Group**

Seymour-Johnson AFB

**Bryan Gossage, Land and Water Stewardship Director**

North Carolina Department of Environmental Quality

**Jim Holland, Program Director – BRAC**

Department of Defense, Office of Economic Adjustment

**Rob Hosford, Government Affairs / Advisor to Commissioner**

North Carolina Department of Agriculture and Consumer Services

**Dr. Patricia Mitchell, Assistant Secretary for Rural Development**

North Carolina Department of Commerce

**Sebastian Montagne, Military / Strategic Planning Project Manager**

North Carolina Department of Transportation

**Bobby Outten, County Manager**

Dare County

**Bill Pate, Commissioner, Vice Chair**

Wayne County

**Howard Phillips, Refuge Manager**

Pocosin Lakes National Wildlife Refuge

**William Pitt, Councilman**

City of Washington

**Earl Pugh Jr., Commissioner, Chairman**

Hyde County



Colonel Christopher Sage, *Commander, 4th Fighter Wing*  
Seymour Johnson AFB

Bill R. Sexton Jr., *Commissioner / Committee Vice Chair*  
Washington County

Colonel Mark Slocum, *Former Commander, 4th Fighter Wing*  
Seymour Johnson AFB

Traci White, *Planning Director*  
Bertie County

Major General Cornell Wilson, *Secretary*  
North Carolina Department of Military and Veterans Affairs

Randell K. Woodruff, *Former County Manager*  
Beaufort County

## Technical Advisory Committee

---

The Technical Advisory Committee (TAC) served a key role in the development of the Seymour Johnson AFB JLUS, providing the overall advisory support, review, and guidance of the study. The TAC comprised of the following individuals:

Brian Alligood, *County Manager*  
Beaufort County

Colonel Brian Armstrong, *Vice-Commander, 4th Fighter Wing*  
Seymour Johnson AFB

Colonel Andrew Bernard, *Former Vice-Commander, 4th Fighter Wing*  
Seymour Johnson AFB

Mike Bryant, *Refuge Manager*  
Alligator River National Wildlife Refuge

David Clegg, *County Manager*  
Tyrrell County

Stewart Cox, *Civilian Deputy Commander, 4th Mission Support Group*  
Seymour Johnson AFB

Denise Evans, *Community Planner, 4th Civil Engineering Squadron*  
Seymour Johnson AFB

Dennis Goodson, *4th Civil Engineer Squadron*  
Seymour Johnson AFB

Bryan Gossage, *Land and Water Stewardship Director*  
North Carolina Department of Environmental Quality

Rob Hosford, *Government Affairs / Advisor to Commissioner*  
North Carolina Department of Agriculture and Consumer Services

Dr. Patricia Mitchell, *Assistant Secretary for Rural Development*  
North Carolina Department of Commerce

Buster Manning, *Commissioner*  
Washington County



## Acknowledgements

---

Sebastian Montagne, *Military/ Strategic Planning Project Manager*  
North Carolina Department of Transportation

Bobby Outten, *County Manager*  
Dare County

John Pack, *Emergency Management*  
Beaufort County

Howard Phillips, *Refuge Manager*  
Pocosin Lakes National Wildlife Refuge

Bill Rich, *County Manager*  
Hyde County

Jimmy Rowe, *Planning Director*  
City of Goldsboro

Traci White, *Planning Director*  
Bertie County

George Wood, *County Manager*  
Wayne County

## North Carolina Department of Commerce

---



Will Best, *JLUS Project Manager*

## JLUS Consultant

---



Mike Hrapla  
*Project Manager*

Celeste Werner, AICP  
*Deputy Project Manager*

Rick Rust, AICP, GISP  
*Technical Manager*

Patrick Small, AICP  
*Lead Planner*



Please see the next page.



# Table of Contents

<b>Acronyms</b>	<b>v</b>
<b>1 Introduction</b>	<b>1</b>
1.1 What Is a JLUS?	1
1.2 Why Prepare a Joint Land Use Study?	2
1.3 JLUS Goal and Objectives	2
1.4 JLUS Study Area	3
1.5 Public Outreach	3
<b>2 Community Profiles</b>	<b>9</b>
2.1 Study Area Growth Trends	9
2.2 Economic Development	10
2.3 JLUS Community Airports	12
<b>3 Military Profile</b>	<b>3</b>
3.1 Installation Setting	15
3.2 Military Operations	16
3.3 Military Footprint	16
<b>4 Compatibility Tools</b>	<b>37</b>
4.1 Federal Plans and Programs	37
4.2 Seymour Johnson AFB Plans and Programs	40
4.3 State of North Carolina Plans and Programs	41
4.4 Local Jurisdiction Planning Tools	42



<b>5</b>	<b>Compatibility Assessment.....</b>	<b>49</b>
5.1	Compatibility Assessment.....	49
5.2	Methodology and Evaluation.....	49
<b>6</b>	<b>Implementation Plan .....</b>	<b>57</b>
6.1	Implementation Plan .....	57
6.2	Implementation Plan Guidelines .....	58
6.3	Military Compatibility and Awareness Areas .....	58
6.4	How to Read the Implementation Plan.....	72
	<b>Appendix .....</b>	<b>129</b>

### Figures and Tables

Figure 1	Seymour Johnson AFB Economic Impact, FY 2016.....	2
Figure 2		
Figure 3	Seymour Johnson AFB Departure Flight Tracks .....	17
Figure 4	Seymour Johnson AFB Arrival Flight Tracks.....	18
Figure 5	Seymour Johnson AFB Closed Pattern Flight Tracks .....	19
Flight 6	Seymour Johnson AFB Military Operating Areas .....	20
Figure 7	Seymour Johnson AFB Military Training Routes.....	22
Figure 8	Seymour Johnson AFB Imaginary Surface .....	23
Figure 9	Seymour Johnson AFB FAA Part 77 Obstruction Evaluation Areas .....	24
Figure 10	Seymour Johnson AFB Safety .....	25
Figure 11	Seymour Johnson AFB Noise Contours.....	26
Figure 12	Seymour Johnson AFB ESQD Arcs.....	27
Figure 13	Seymour Johnson AFB Bird Wildlife Aircraft Strike Hazard.....	28
Figure 14	Military Operating Areas Surrounding Dare County Range.....	30
Figure 15	Restricted Areas Surrounding Dare County Range.....	31
Figure 16	Dare County Range Military Training Routes.....	32

## Table of Contents

Figure 17	Military Training Routes <249 ft. ....	33
Figure 18	Military Training Routes Between 500 and 999 ft. ....	34
Figure 19	Aircraft Noise Contours at Dare County Range.....	35
Figure 20	High Risk of Adverse Impact Zone Surrounding Dare County Range .....	36
Figure 21	Seymour Johnson AFB Military Compatibility Area Overlay District (MCAOD).....	59
Figure 22	Dare County Range Military Influence Area .....	61
Figure 23	Seymour Johnson AFB Coordination Military Compatibility Area (MCA) .....	62
Figure 24	Seymour Johnson AFB Noise Military Compatibility Area (MCA) .....	63
Figure 25	Seymour Johnson AFB Safety Military Compatibility Area (MCA) .....	64
Figure 26	Seymour Johnson AFB Imaginary Surface Military Compatibility Area (MCA) .....	66
Figure 27	Seymour Johnson AFB BASH Military Compatibility Area (MCA) .....	67
Figure 28	Dare County Range Coordination Military Awareness Area (MAA) .....	68
Figure 29	Dare County Range Noise Military Awareness Area (MAA) .....	70
Figure 30	Dare County Range Vertical Obstruction Military Awareness Area (MCA) .....	71
Figure 31	How to Read JLUS Strategies .....	74
Table 1.	Population Change 2000-2010; Growth Trends through 2030 .....	9
Table 2.	Issues / Strategies by Compatibility Factor (Alphabetized by Factor) .....	75



Please see next page.



# Acronyms

## A

AFB	Air Force Base
AGL	above ground level
AI	Airport Industry District
AICUZ	Air Installation Compatibility Use Zone
AP	Airport Overlay District
AP/1B	Department of Defense Area Planning for Military Training Routes
APZs	Accident Potential Zones
ARNWR	Alligator River National Wildlife Refuge

## B

BASH	Bird / Wildlife Air Strike Hazard
BIO	Biological Resources

## C

CA	Climate Adaptation
CAMA	Coastal Area Management Act
COM	Communication / Coordination
CRC	Coastal Resources Commission
CRP	Comprehensive Range Plan
CZs	Clear Zones

## D

dB	decibel
DCR	Dare County Range
DNL	Night Average Sound Level
DNL	day-night sound level
DOD	Department of Defense
DSS	Dust / Smoke / Steam

## E

ED	Energy Development
ESQD	Explosive Safety Quantity Distance
ETJ	extraterritorial jurisdiction

## F

FAA	Federal Aviation Administration
FW	Fighter Wing
FY	Fiscal Year



## G

GIS Geographic Information System

## H

HA Housing Availability  
HRAIZ High Risk of Adverse Impact Zone

## I

ICEMAP Installation Complex Encroachment  
Management Action Plan  
INRMP Integrated Natural Resources Management  
Plan  
IRs instrument routes

## J

JLUS Joint Land Use Study

## K

KIAS knots indicated airspeed

## L

LAS Land / Air / Sea Space Competition  
LEG Legislative Initiatives  
LU Land Use

## M

MAA Military Awareness Area  
MCA Military Compatibility Area  
MCAOD Military Compatibility Area Overlay District  
MCAs Military Compatibility Areas  
MIA Military Influence Area  
MOAs Military Operating Areas  
MOUT Military Operations in Urban Terrain  
MSL mean sea level  
MTRs Military Training Routes

## N

NGOs Nongovernmental organizations  
NMs nautical miles  
NOI Noise  
NVG Night Vision Goggle

## O

OEA Office of Economic Adjustment

## Acronyms



### P

PC Policy Committee

### R

RAICUZ Range Air Installations Compatible Use Zones  
RC Roadway Capacity  
REPI Readiness and Environmental Protection  
Integration  
RYG Red, Yellow, Green

### S

SA Safety  
SRs slow speed low altitude routes  
SUA Special Use Airspace  
SUA Special Use Airspace

### T

TAC Technical Advisory Committee

### U

USAF United States Air Force  
USAHAS US Avian Hazard Advisory System

### V

V Vibration  
VO Vertical Obstructions  
VRs visual routes

### W

WISS Weapon Impact Scoring System

Please see the next page.





# Introduction

# 1

The Seymour Johnson Air Force Base (AFB) and Dare County Range (DCR) Joint Land Use Study (JLUS) is a collaborative planning effort led by the North Carolina Department of Commerce Rural Economic Development Division in partnership with seven counties—Beaufort, Bertie, Dare, Hyde, Tyrrell, Washington, and Wayne, and the cities of Goldsboro and Washington. The JLUS was undertaken in an effort to guide planning and development in the areas surrounding Seymour Johnson AFB and DCR to help mitigate any existing land use compatibility issues that may lead to encroachment, prevent future issues and enhance coordination among all entities involved in the process.

The Seymour Johnson AFB and DCR JLUS encourages a proactive approach to promote increased communication about land use decisions including regulation, conservation, and natural resource management issues that affect both the local communities and the military. The aim of the process is to establish and encourage a working relationship between military installations and neighboring communities so encroachment issues related to current and future missions and local growth can be reduced or prevented. Encroachment refers to the conflicting uses of land, air, water, and other resources that can individually, or cumulatively, impact the military's ability to carry out its training missions.

The compatibility factors considered in this document are described in the Compatibility Assessment (Chapter 5 of the JLUS or Chapter 5 of the Background Report). A review of these factors led to the development of a set of issues, which resulted in the strategies to address compatibility concerns in this report. The recommended strategies are based on a toolbox of methods used to 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.

## 1.1 What Is a JLUS?

A JLUS is a planning process accomplished through the collaborative efforts of stakeholders in a defined study area to identify compatible land uses and growth management guidelines within, and adjacent to, an active military installation. These stakeholders include local community, state, and federal officials, residents, business owners, federal resource agencies and landholders, nongovernmental organizations, and the military. The process is intended to establish and encourage a working relationship among military installations and proximate communities to prevent and / or reduce encroachment associated with future mission expansion and local growth. Although primarily funded by the Department of Defense (DOD), Office of Economic Adjustment (OEA), a JLUS is produced by and for local communities. The project sponsor and grant administrator for the Seymour Johnson AFB and DCR JLUS is the North Carolina Department of Commerce Rural Economic Development Division.

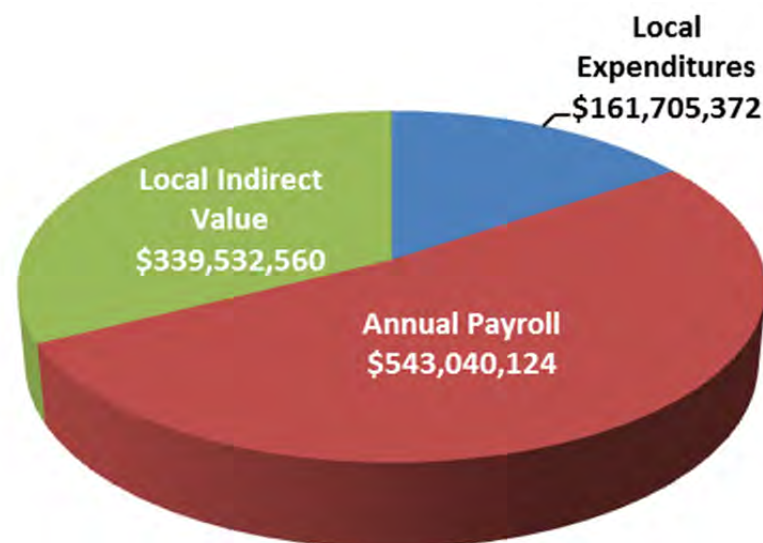
## 1.2 Why Prepare a Joint Land Use Study?

Collaboration and joint planning among military installations, local jurisdictions, and agencies protects the long-term viability of existing and future military missions. Working together also enhances local economies and industries before compatibility becomes an issue. Recognizing the close relationship that should exist between installations and adjacent communities, the OEA implemented the JLUS program to aid in mitigating existing and future conflicts and enhancing communication and coordination among all affected stakeholders. This program aims to preserve the sustainability of local communities while protecting current and future research, development, acquisition, testing, and missions at Seymour Johnson AFB and DCR.

### Economic Impact

Seymour Johnson AFB and the DCR are a significant economic engine for the eastern region of North Carolina. As the largest employer in Wayne County, for Fiscal Year (FY) 2016, Seymour Johnson AFB employed approximately 6,000 military personnel and approximately 800 civilians, and supported approximately 5,600 active duty dependents. The total economic output from Seymour Johnson AFB and the DCR in FY 2016 was just under \$705 Million including an economic impact of \$543 Million in annual payroll and local expenditures of \$161 Million. Additionally, Seymour Johnson AFB contributed over \$339 Million in indirect jobs and personnel spending in the local community as shown in Figure 1. Though the economic impact of the DCR has not been quantified independent of Seymour Johnson AFB, the economic impact of the DCR is expected to be much smaller due to the limited number of employees at the DCR; however, the economic viability of Seymour Johnson AFB is dependent on the DCR to execute its training mission.

Figure 1. Seymour Johnson AFB Economic Impact, FY 2016



Source: Seymour Johnson AFB/ 4th Fighter Wing Economic Impact Statement Fiscal Year 2016

## 1.3 JLUS Goal and Objectives

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

To achieve this goal, three primary JLUS objectives were identified.

- **Understanding.** Convene community and military representatives to identify, confirm, and understand compatibility issues and concerns in an open forum, considering both the community and military

perspectives and needs. This includes increasing public awareness, education, and opportunities for input organized in a cohesive outreach program.

- **Collaboration.** Encourage cooperative land use and resource planning among Seymour Johnson AFB, DCR, and surrounding communities so that future community growth and development are compatible with the Seymour Johnson AFB and DCR missions and operations, while seeking ways to reduce operational impacts on land within the study area.
- **Actions.** Provide a set of mutually supported tools, activities, and procedures from which local jurisdictions, agencies, and Seymour Johnson AFB can select, prepare, and approve / adopt in order to implement recommendations developed during the JLUS process. The actions include both operational measures to mitigate installation impacts on surrounding communities and local government and agency approaches to reduce community impacts on military operations. These tools help decision makers resolve compatibility issues and prioritize projects within their annual budgeting cycles.

### 1.4 JLUS Study Area

The local military installation at the heart of this JLUS is Seymour Johnson AFB, North Carolina. The Study Area for Seymour Johnson AFB, shown in Figure 2, is comprised of the Seymour Johnson AFB, including the Dare County Range and associated Special Use Airspace (SUAs), Military Training Routes (MTRs), and Military Operations Areas (MOAs). The areas surrounding Seymour Johnson AFB that are influenced or affected by Seymour Johnson AFB military operations comprise the larger component of the overall JLUS study area and include counties of Beaufort, Bertie, Dare, Hyde, Tyrrell, Washington, and Wayne; the cities of Goldsboro and Washington; the US Fish & Wildlife Alligator River National Wildlife Refuge; Seymour Johnson AFB; and the DCR.

### 1.5 Public Outreach

The JLUS process was designed to create a locally relevant document that builds consensus and garners stakeholder support. To achieve the JLUS goal and objectives, the Seymour Johnson AFB and DCR JLUS process included a public outreach program providing a variety of participation opportunities for interested parties.

#### Stakeholders

An early step in any planning process is stakeholder identification. Informing and involving them early is instrumental to identifying, understanding, and resolving their most important issues 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 document. Stakeholders identified for the Seymour Johnson AFB and DCR JLUS include:

- Local jurisdictions (counties, cities, and towns).
- DOD officials (including OEA Representatives) and military installation personnel.
- Local, county, regional, and state planning, regulatory, and land management agencies.
- Landholding and regulatory federal agencies.
- The public (including residents, businesses, and landowners).
- Environmental advocacy organizations.
- Nongovernmental organizations (NGOs).
- Other special interest groups (including local educational institutions and school districts).



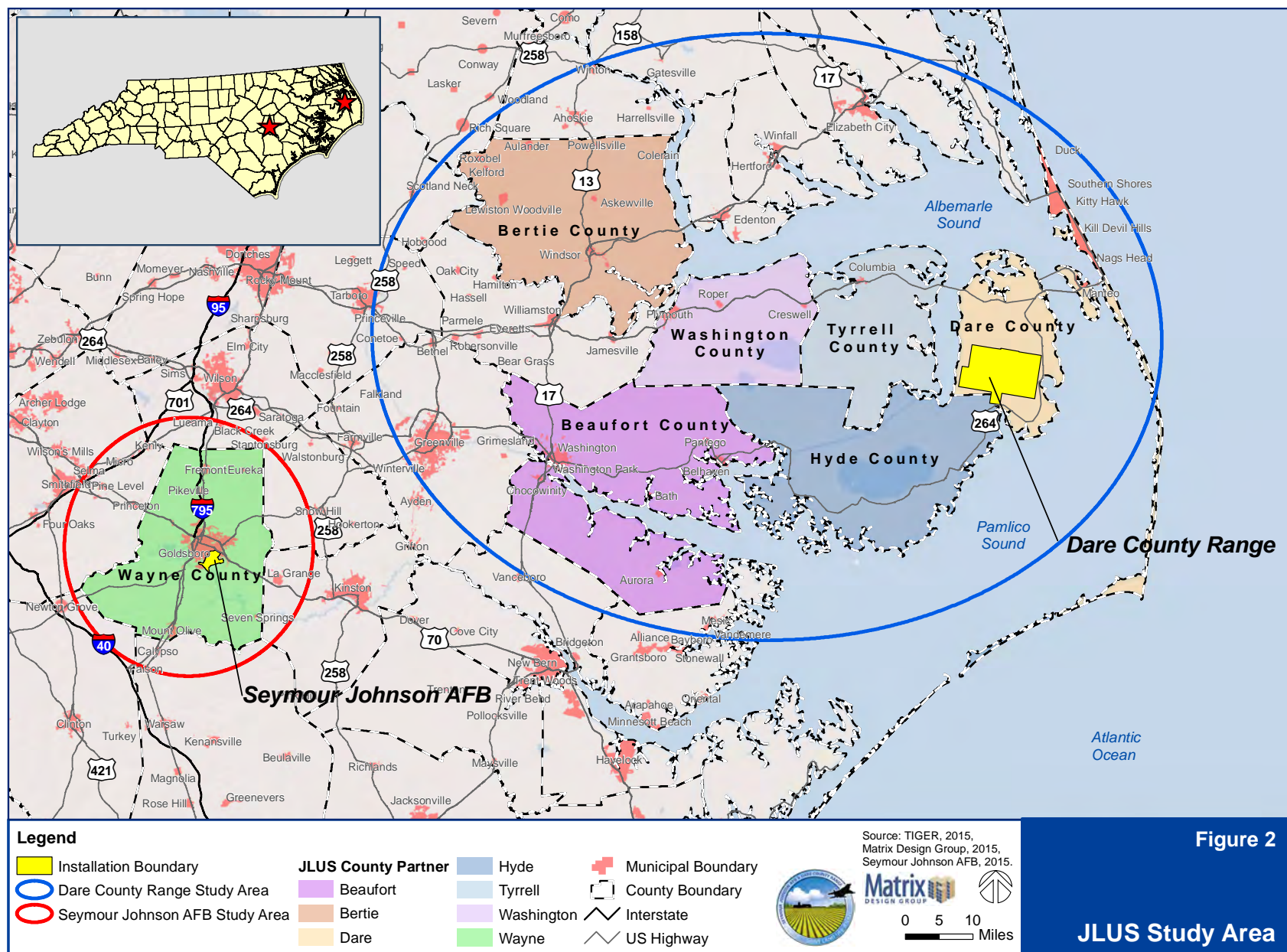


Figure 2

JLUS Study Area

### Policy Committee, Technical Advisory Committee, and Technical Working Group

The development of the Seymour Johnson AFB JLUS was guided by two committees and one working group. The committees comprise community leaders, Seymour Johnson AFB personnel, federal and state agencies, resource agencies, local governments, and other stakeholders. The working group members comprise specialized subject matter experts to facilitate an in-depth knowledge and understanding of certain issues requiring additional technical expertise.

**JLUS Policy Committee.** The Policy Committee (PC) consists of officials from participating jurisdictions, military installation leadership, and representatives from other interested and affected agencies. The PC is responsible for the overall direction of the JLUS, preparation, and approval of the study design, policy recommendations, and draft and final JLUS documents.

**JLUS Technical Advisory Committee.** The purpose of the Technical Advisory Committees (TACs) is to provide technical expertise, feedback, and suggestions to the JLUS team and to serve as communications liaisons to their respective organizations. Because of the geographic expanse of the JLUS Study Area, two separate TACs were created to assist with the technical aspects of the Seymour Johnson and DCR JLUS. One of the TACs focused on the portions of the Study Area surrounding Seymour Johnson AFB, including Wayne County and the City of Goldsboro. A second TAC focused on the portions of the study area associated with the DCR, including the counties of Beaufort, Bertie, Dare, Hyde, Tyrrell, Washington and the City of Washington.

The TACs identified and addressed technical issues, provided feedback on report development, and assisted in the development and evaluation of implementation strategies and tools. These stakeholders engaged with the PC in an advisory role.

### Public Workshops

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 issues to be addressed, and provided an opportunity for input on 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 JLUS development.



Public Workshop #3 conducted in Plymouth, NC on March 15, 2017



## Public Outreach Materials

**JLUS Fact Sheet / Compatibility Factors Brochure.** At the beginning of the JLUS process, a Fact Sheet was developed describing the JLUS program, objectives, methods for public input, and proposed the Seymour Johnson AFB JLUS study area. Two versions of the Fact Sheet were created, one focused on Seymour Johnson AFB and the other focused on DCR and the area impacted by overflight. These Fact Sheets were made available at the meetings for review by interested members of the public and on the project website.

**Fact Sheet #1: Project Overview / Compatibility Factors**  
JLUS for Dare County Range

**What is a Joint Land Use Study?**  
A Joint Land Use Study (JLUS) is a cooperative land use planning effort conducted as a joint venture between an active military installation, surrounding jurisdictions, state and federal agencies, and other affected stakeholders. The Seymour Johnson Air Force Base (AFB) and Dare County Range JLUS is funded by a grant from the Department of Defense Office of Economic Adjustment (OEIA) and contributions by the State of North Carolina. The JLUS effort can directly benefit Seymour Johnson AFB, the Dare County Range and the surrounding region by:

- ◆ Protecting the health and safety of surrounding residents and workers;
- ◆ Preserving long-term land use compatibility between Seymour Johnson AFB, Dare County Range, and the surrounding communities;
- ◆ Promoting community planning; and
- ◆ Encouraging cooperation between the military installation and community officials.

**JLUS Objectives**  
The goal of a JLUS is to reduce potential conflicts between military installations and surrounding areas while accommodating new growth and economic development, sustaining economic vitality, protecting public health and safety, and protecting the operational missions of the installation. JLUS programs have three core objectives:

**UNDERSTANDING.** Increase communication between the military, local jurisdictions, and stakeholders to promote an understanding of the strong economic and physical relationship between Seymour Johnson Air Force Base, the Dare County Range and its neighbors.

**COLLABORATION.** Promote collaborative planning between the military, local jurisdictions and stakeholders in order to ensure a consistent approach in addressing compatibility issues.

**ACTIONS.** Develop and implement strategies for reducing the impacts of incompatible activities on the community and military operations. Design tools to support compatibility in the future.

**Who will guide the JLUS development?**  
Two committees (comprised of city, county, military, and other stakeholders), together with the public, will guide the development of the JLUS. Each group has an important role to play.

**POLICY COMMITTEE (PC).** The PC is responsible for leading the direction of the JLUS and monitoring the implementation and adoption of policies and strategies.

**TECHNICAL ADVISORY COMMITTEE (TAC).** The TAC is made up of representatives from different agencies and the development community who possess the technical knowledge needed to guide and assist the JLUS process. The TAC identifies and addresses technical issues, provides feedback on report development, and assists in the development and evaluation of implementation strategies and tools.

**PUBLIC.** The public can be involved in the development of the JLUS by providing input and guidance to the process, by informing the representatives of the PC of their concerns and recommendations, by submitting comments and feedback online at through the forthcoming project website and by attending the four public workshops.

**What is Compatibility?**  
Compatibility, in relationship to military readiness, can be defined as the balance and / or compromise between community and military needs and interests. The goal of compatibility planning is to promote an environment where both entities can coexist successfully. Study area data on existing conditions obtained from the PC, TAC, and public workshops will be analyzed to identify current and future compatibility issues. This analysis will also identify the influence of regulatory measures on land use decisions and will consider existing and projected development trends within the study area. The JLUS will assess a set of compatibility factors to determine all pertinent issues applicable to this Dare County Range and areas of overflight in northeast North Carolina.

**Why is it important to partner with Seymour Johnson Air Force Base?**  
The Dare County Range, operated by Seymour Johnson AFB, was constructed in 1965 and transferred to the Air Force in 1978. The Range is vital to maintaining the mission at Seymour Johnson AFB in support of military readiness and national defense objectives. It serves as the primary training range for F-35 fighter jets stationed at Seymour Johnson AFB and hosts both air and ground training exercises for the US Air Force and other military services. Critical to the Base's flight training needs, the region features a combination of air routes, range airspace, and flight terrain not found elsewhere in proximity to Seymour Johnson AFB. Seymour Johnson AFB depends on this airspace to safely conduct flight training missions and transit between Seymour Johnson AFB and the Dare County Range.

It is important to partner with the installation on relevant and long-range planning projects to ensure and protect the viability and sustainability of the military training mission and economic impact that Seymour Johnson AFB provides to the northeast North Carolina region now and into the future.

As of 2012, Seymour Johnson AFB employed over 7,600 military and civilian personnel. The total economic annual impact in Fiscal Year 2012 was \$527.4 million, making Seymour Johnson AFB a significant economic contributor to the regional economy. The JLUS process strives to deepen the understanding of and enhance the mutual benefits shared between Seymour Johnson AFB, Dare County Range and the surrounding northeast North Carolina region.

Stay up-to-date on the Seymour Johnson AFB JLUS at [www.NortheastNCRegionalJLUS.com](http://www.NortheastNCRegionalJLUS.com)

### Fact Sheet #1 – JLUS Overview





## What are JLUS Strategies?

JLUS strategies constitute a variety of actions that local governments, military installations, agencies, and other stakeholders can take to promote compatible land use planning. When these strategies are implemented, existing and potential compatibility issues arising from the civilian / military interface can be removed or significantly reduced. As such, the recommended strategies function as the heart of the JLUS document and are the culmination of the planning process.

The strategy types presented within this brochure constitute a "toolbox" of the possible actions that can be taken to address the range of compatibility issues identified during the planning process. This document is intended to start the discussion to determine specific strategies that are useful for the JLUS Study Area. For each strategy type, a brief overview is provided to assist in communicating a general understanding of its intent. It will be up to each individual stakeholder to determine the best assortment of tools / strategies that are appropriate within their communities.

It is important to note that once the JLUS process is completed, the final document is not an adopted plan, but rather a recommended set of strategies which will require further actions by JLUS participants to be successful.

## The Strategy "Toolbox"

- |   |   |
|---|---|
| • Acquisition                                   | • Deed Restrictions / Covenants                   |
| • Air Installation Compatible Use Zone (AICUZ)  | • Habitat Conservation Tools                      |
| • Airport Master Plan / Airspace Study          | • Hazard Mitigation Plans                         |
| • Avigation Easement                            | • Legislative Tools                               |
| • Base Planning                                 | • Memorandum of Understanding (MOU)               |
| • Bird / Wildlife Aircraft Strike Hazard (BASH) | • Military Influence Areas (MIA)                  |
| • Building Codes / Construction Standards       | • National Environmental Policy Act (NEPA)        |
| • Capital Improvement Program (CIP)             | • Partnership with Non-Governmental Organizations |
| • Cluster Development                           | • Real Estate Disclosures                         |
| • Code Enforcement                              | • Transfer of Development Rights (TDR)            |
| • Communication and Coordination                | • Zoning Ordinance / Subdivision Regulations      |
| • Comprehensive / General / Master Plans        |   |



Stay up-to-date on the Seymour Johnson AFB JLUS at [www.NortheastNCRegionalJLUS.com](http://www.NortheastNCRegionalJLUS.com)

## Fact Sheet #2 – Strategy Toolbox

**Strategy Tools Brochure.** JLUS strategies incorporate a variety of actions that local governments, military installations, agencies, and other stakeholders can take to promote compatible land use planning. This brochure provided an overview of strategy types that can be applied to address study area compatibility issues.

**Website.** A project website was developed to provide stakeholders, the public, and media representatives with access to project information. The website was maintained for the entire duration of the project to make information easily accessible. Information contained on the website included program points of contact, schedules, relevant documents and maps, public meeting information, and downloadable comment forms. The project website is located at [www.NortheastNCRegionalJLUS.com](http://www.NortheastNCRegionalJLUS.com).



JLUS Website Home Page



# Community Profiles

# 2

The study area for the Seymour Johnson JLUS covers a large area of eastern North Carolina and is primarily focused on land uses surrounding Seymour Johnson AFB and the Dare County Range. The study area encompasses several communities in North Carolina, including seven counties—Beaufort, Bertie, Dare, Hyde, Tyrrell, Washington, and Wayne, and two cities—Goldsboro and Washington. An overview of the JLUS study area communities is provided to understand the types of activities and land uses that are occurring outside the installations.

## 2.1 Study Area Growth Trends

The following provides a profile of the Study Area's trends concerning population change, economic development, housing stock, and transportation infrastructure, all of which establish the regional context for growth potential in the region.

The population data is based on information obtained from the US Census Bureau and shows the change in population within the Study Area. Table 1 provides a comparison of the changes in population in the region between 2000 and 2010, the percent change over the decade, and projections for the next two decades.

Population levels overall fluctuated throughout the Study Area between 2000 and 2010. Dare County experienced the highest population growth rate among all the jurisdictions in the Study Area; however, the county growth rate was still less than the overall state's growth rate during this same timeframe. Wayne, Beaufort, Bertie, and Tyrrell counties experienced moderate growth, ranging about two to three times less than the state's

growth rate during this time period. Hyde and Washington County, along with the cities of Goldsboro and Washington experienced declines in population by 2010. While the City of Goldsboro experienced the largest decline of 8.45 percent, Wayne County experienced a growth rate of 8.22 percent, which is comparable to the decline of the city indicating that the people were migrating out of the city into the county. Hyde County and the City of Washington experienced a minimal decline in population of less than one percent.

**Table 1. Population Change 2000-2010; Growth Trends through 2030**

Jurisdiction	2000	2010	Percent Change 2000-2010	2020	2030
North Carolina	8,049,313	9,535,483	18.46%	10,558,749	11,558,205
Wayne County	113,329	122,623	8.22%	128,950	137,115
Beaufort County	44,958	47,759	6.23%	47,784	47,783
Bertie County	19,773	21,282	7.63%	20,198	19,544
Dare County	29,967	33,920	13.19%	37,548	39,317
Hyde County	5,826	5,810	-0.27%	6,112	6,544
Tyrrell County	4,149	4,407	6.22%	3,947	3,686
Washington County	13,723	13,228	-3.61%	12,365	11,710



Jurisdiction	2000	2010	Percent Change 2000-2010	2020	2030
City of Goldsboro	39,801	36,437	-8.45%	39,018	Not available
City of Washington	9,796	9,744	-0.53%	Not available	Not available

Source: <http://censusviewer.com>; North Carolina Office of State Budget and Management County/State Population Projections; Goldsboro Parks and Recreation Comprehensive Plan, 2008

Dare, Hyde, and Wayne Counties expect to experience population growth over the next two decades. Beaufort County is expected to experience very minimal growth over the next 15 to 20 years, while Bertie, Tyrrell, and Washington Counties are expected to decline in population in the next 20 years.

## 2.2 Economic Development

The Study Area is home to a diverse economy, yet the one industry that impacts every county within North Carolina is tourism, with a statewide average of \$55 Million spent in lodging, food, and retail per day. Due to the state's history, culture, and scenic views, the state attracted approximately 52.5 million visitors in the year 2013 making North Carolina one of the top six most visited states in the US. The following paragraphs provide an economic overview of each of the jurisdictions in the JLUS Study Area.

### Beaufort County

Beaufort County is popular due to its waterfront areas and historic features. Many manufacturers choose to locate their businesses in Beaufort County because of the low tax rates and mild climate. The primary industries in Beaufort County are education, healthcare, manufacturing and retail. The manufacturing industry comprises of 12.6 percent of the county's

workforce. Some of the top manufacturers include PotashCorp Aurora, Flanders Filters, and Stanadyne. Many of the products manufactured include mechanical parts.

Tourism is a growing part of the county's economy. Having lost many manufacturing jobs in the past 20 years, improving tourism efforts in the county is a priority for its economy, which has suffered since the Great Recession of 2008. From 2010 to 2011, the economic impact of domestic tourism in Beaufort County increased by five percent. That increase is attributed to attractions like the historic town of Bath, the City of Washington's restored waterfront, the Aurora Fossil Museum, the Belhaven Memorial Museum and Goose Creek State Park.

### Bertie County

The primary industries in Bertie County include education, healthcare, social assistance, and manufacturing. Bertie County also benefits from the Region Q Workforce Investment Consortium, a regional workforce development organization mentioned under Beaufort County within Section 2.4 of the JLUS Background Report.

In 2008, a steering committee made up of local representatives established a strategic plan for the county that involves the creation of an environment that supports new and existing businesses. This is accomplished by upgrading and improving the infrastructure to promote tourism, entrepreneurship, and the integration of technology by utilizing existing community values and natural resources. The plan establishes goals and strategies to achieve the mission. Some of the economic development strengths the county possesses are proximity to highways, railroads, and airports, a state-of-the art medical facility, and a number of vacant industrial buildings.

### Dare County

Federal land, including the DCR and the Alligator River National Wildlife Refuge (ARNWR), make up about 90 percent of Dare County's mainland. As a result, the county's economy relies on the tourism revenues generated from visitors traveling to and recreating at the Outer Banks. The Outer Banks Chamber of Commerce promotes and develops the economic prosperity of the Outer Banks business community.

The primary industries in Dare County are arts, entertainment, recreation, accommodation, food services, education, and healthcare. As a result of Dare County's coastal location, much of the county's economy is driven by tourism. With numerous museums and attractions, the area is known for its historic sites and beachfronts.

### Hyde County

Hyde County is known to be a sportsman's paradise. With thousands of acres of farmland, many companies seek to establish their business within the county due to the low costs. The primary industries in Hyde County are education, healthcare, social assistance, and public administration. Hyde County Economic Development serves Ocracoke Island as well as all of the Mainland Hyde County communities including Engelhard, Fairfield, Ponzer, Scranton, and Swan Quarter.

### Tyrrell County

Known for its rich agricultural heritage, Tyrrell County is considered a gateway to the Outer Banks. The area is home to a variety of wildlife and has a strong agricultural and fishing background. The primary industries in Tyrrell County are education, healthcare, social assistance, public administration, agriculture, forestry, fishing, hunting, and mining.

### Washington County

Washington County has a wide range of industries that support the county's economy. With production in marine and wood products, a strong tourism and retirement market, as well as food manufacturing companies and agricultural research centers, Washington County is able to meet the needs of numerous industries. Along with manufacturing, the other major industries in Washington County are education, health care, and social assistance.

### Wayne County

Although Seymour Johnson AFB is the county's largest employer, the other primary industries in Wayne County are education, health care, social assistance, and manufacturing. In 2012, Seymour Johnson AFB employed over 7,600 military and civilian personnel, producing a total economic impact of \$527.4 Million. Although the agriculture sector only makes up 5.5 percent of employment in Wayne County, it is the third largest agricultural county in the state, with the agri-business making up about 22 percent of the county's total gross income.

From early settlement to present day, tobacco, corn, wheat, soybeans, cotton, oats, dairy, and poultry have been the main agricultural products produced. Pickles and relishes, furniture, textiles and technical equipment are common manufactured goods produced within the county. One of the lead pickle manufacturers, the Mount Olive Company, is also located in Wayne County. Due to the county's climate, the area experiences a growing season of up to 225 days per year.

### City of Goldsboro

The City of Goldsboro has a very diverse economy, supporting a variety of industries including military, agricultural, and tourism. Due to the city's proximity to Seymour Johnson AFB, much of the county's economic activity is a result of the number of military and personnel working at the

installation. The city's primary industries are defense, education, healthcare, social assistance, and manufacturing.

The Downtown Goldsboro Development Corporation, a non-profit organization, supports the improvement of Downtown Goldsboro. They create and facilitate downtown development, promotions, and preservation activities and provide downtown information. The organization strives to enhance the appearance, desirability and vitality of this very important economic and social center. They provide façade grants to downtown property owners and organize and facilitate a variety of community events.

### City of Washington

The City of Washington takes pride in its historic relevance and has focused on the preservation of the city's historic architecture and agricultural roots. Currently, the city serves as a major retail and services center for Beaufort County. Services include medical, small scale manufacturing, retail, tourism, and agriculture. However, the city has experienced impacts related to the recent slow economy.

## 2.3 JLUS Community Airports

There are several public airports located within the Study Area. The following paragraphs provide a brief overview of each airport.

### Hyde County Airport

Hyde County Airport is a county owned public use airport located approximately seven miles north of Engelhard and approximately seven miles southwest of the DCR. The airport covers an area of 387 acres and has one asphalt runway. In 2013, the airport had 4,050 aircraft operations, consisting of 86 percent general aviation, 12 percent military, and 1 percent air taxi. There is no fixed base operator at this facility. Its location within the Pamlico B Military Operating Area airspace and proximity to military

Restricted Airspaces R-5314B and R-5313D limits the approach to a very narrow area.

### Warren Field Airport

Warren Field Airport is a publicly owned airport located in the City of Washington, North Carolina and is approximately 70 miles east of Seymour Johnson AFB. There are two asphalt runways located at the airport. The airport has, on average, approximately 47 general operations per day, with 47 percent local general aviation, 24 percent transient general aviation, and 29 percent military.

### Wayne Executive Jetport

The Wayne Executive Jetport is a public-use airport owned by Wayne County, located three miles north of the City of Goldsboro and is approximately 10 miles north of Seymour Johnson AFB. Seymour Johnson AFB is responsible for air traffic over the airport. The airport has one asphalt runway and has 48 based aircraft. The airport operations averaged 16,200 in 2011 and on average 82 percent of the operation's general aviation, 12 percent air taxi, and six percent military.

### Plymouth Municipal Airport

Plymouth Municipal Airport is a county-owned, public-use airport located two nautical miles south of the central business district of the Town of Plymouth, in Washington County. According to the FAA's National Plan of Integrated Airport Systems, it is classified as a general aviation airport. Plymouth Municipal Airport covers an area of 390 acres. It has one asphalt runway designated 3/21 measuring 5,500 by 75 feet. In 2015, the airport had 13,275 aircraft operations consisting of 83 percent general aviation, 15 percent military, and 2 percent air taxi. Also in 2015, there were 23 aircraft based at this airport.

### Lee Creek Airport

Lee Creek Airport is a privately used airport located five miles north of the city of Aurora in Beaufort County. The asphalt runway, designated 8/26, is 5,070 by 75 feet.

### Donald's Air Park

Donald's Air Park is a privately-owned, full service aircraft maintenance facility located in Washington County, approximately eight miles southeast of the Town of Plymouth. The airport consists of a lighted turf runway, measuring 4,000 by 100 feet. There are eight single-engine airplanes based at the airfield.

### Whitfield's East Airport

Whitfield's East Airport is a private airport located two miles south of the unincorporated community of Fairfield in Hyde County. The asphalt-turf runway, designated 8/26, measures 3,300 by 23 feet. The airport was recently activated in 2009. There are eight aircraft based at the airport.

### Dare County Regional Airport

Dare County Regional Airport is a public airport located one mile northwest of the central business district of the Town of Manteo in Dare County. The general aviation airport covers 340 acres and has one runway. The asphalt runway, designated 05/23, measures 4,305 by 100 feet. Operations in 2014 totaled 16,950, with 59 percent air taxi, 40 percent general aviation, and one percent military. There were 94 aircraft based at the airport in 2014.

### First Flight Airport

First Flight Airport is a public use airport located one nautical mile west of the central business district of the Town of Kill Devil Hills in Dare County. The airport is owned by the U.S. National Park Service. It is categorized as a general aviation facility. First Flight Airport covers an area of 40 acres and has one runway, designated 2/20, with an asphalt surface measuring

3,000 by 60 feet. In 2015, the airport had 37,500 aircraft operations, consisting of 99 percent general aviation and one percent military. The airport itself is famous for being the site of hundreds of pre-flight gliding experiments, and the first successful powered heavier-than-air aircraft flight, carried out by the Wright Brothers.

### Billy Mitchell Airport

Billy Mitchell Airport is a public use airport located four nautical miles east of the central business district of the unincorporated community of Hatteras, in Dare County. The airport is located in the Cape Hatteras National Seashore and is owned by the U.S. National Park Service. It is categorized as a general aviation facility. Billy Mitchell Airport covers an area of 100 acres and has one asphalt runway, designated 7/25, measuring 3,000 by 75 feet. In 2013, there were 9,200 total operations, consisting of 98 percent general aviation, one percent air taxi, and one percent military.

### Ocracoke Island Airport

Ocracoke Island Airport is a public use airport located one nautical mile east of the central business district of Ocracoke, a town on Ocracoke Island in Hyde County. It is located in the Cape Hatteras National Seashore, owned by U.S. National Park Service, and operated by the North Carolina Department of Transportation. Ocracoke Island Airport covers an area of 50 acres and has one asphalt runway, designated 6/24, with a surface measuring 2,999 by 60 feet. It also has one helipad designated H1 with a concrete surface measuring 100 by 100 feet. In 2013, the airport had 6,110 aircraft operations consisting of 98 percent general aviation, 2 percent air taxi, and less than 1 percent military.



### **Hodges Farm Airport**

Hodges Farm Airport is a private use airport located three nautical miles southeast of Sladesville in the Currituck Township in Hyde County. The airport has one turf runway, designated 1/19, measuring 2750 by 75 feet. There are two aircraft based at this airport.



## Military Profile

3

Seymour Johnson Air Force Base (AFB) is located in Wayne County, on the eastern-center plain of North Carolina. Located within the City of Goldsboro's corporate limits, the installation comprises approximately 3,243 acres in the southeastern portion of the city, east of US Routes 13 and 117, and just south of US Route 70.

The Dare County Range (DCR) is located on the easternmost coast central to Dare County, North Carolina. The DCR comprises 46,604 acres and is surrounded by the Alligator River National Wildlife Refuge (ARNWR) between the Alligator River and Croatan and Pamlico Sounds. This area includes numerous marshes, forests and open spaces that allow for specific training operations and protect the Range from encroachment.

The mission operations performed within Seymour Johnson AFB and the DCR provide valuable insight into the importance of Seymour Johnson AFB as a national strategic asset and its relationship with communities in the region. The purpose of the information presented in this chapter is to enable stakeholders to make informed decisions about the future development and economic growth of communities proximate to Seymour Johnson AFB and the DCR that could potentially impact the viability and future of the facilities.

### 3.1 Installation Setting

Known as the Coastal Plain, Eastern North Carolina contains expansive agricultural lands and offers a variety of outdoor recreational activities. While ideal for farming, the abundance of level, open fields also provides Seymour Johnson AFB and the DCR with airspace and terrain that is necessary for accomplishing the Base's mission. In addition to Seymour Johnson AFB, manufacturing, aerospace, aviation, and agricultural industries also contribute to the robust economies of the local communities. The community surrounding Seymour Johnson AFB offers rich agricultural tourism sites, including numerous local orchards, family-owned farms, and wineries.

#### Seymour Johnson AFB

The southern portion of Seymour Johnson AFB is largely dedicated to the airfield and aircraft operations and maintenance uses. North of the aircraft facilities are administrative, community related, industrial and outdoor recreation uses. Base housing and medical facilities are located on the northeast portion of the Base, while open space is scattered throughout all areas of the Base.

#### Dare County Range

The DCR is separated into nine sub areas with two weapon impact areas; the northern portion of the Range comprises approximately 2,109 acres for Navy operations (through an Inter-Service Support Agreement with the USAF) and 2,279 acres in the southern portion of the Range for Air Force operations. The remaining acreage is considered environmentally sensitive

and protected by conservation efforts. This area acts as a buffer to communities located near the DCR.

The Navy portion of the site hosts four laser, one strafing, and eleven multipurpose bombing and laser targets while the Air Force portion of the range contains a variety of practice targets including a centrally located nuclear target, one conventional target, six improved targets on gravel pads, three heated targets for infrared training, two low-angle strafe pits, and an extensive array for Military Operations in Urban Terrain (MOUT). Because the DCR is approved for use during day and nighttime, Night Vision Goggle (NVG) compatible lighting is available for aircrew use.

The DCR houses several administrative, command and control, and maintenance facilities. The main tower accommodates administrative offices and Weapons Impact Scoring System (WISS) control. Two other towers, located east and west of the main tower are used for score spotting. Next to the main tower are several maintenance buildings used for equipment storage and workshop space. An additional facility includes a helicopter pad near the intersection of Navy Shell Road and Center Road.

## 3.2 Military Operations

### Mission

Seymour Johnson is a major base for Air Combat Command whose mission is to support worldwide air operations by providing deployable aircraft and trained airmen for combat missions.

The primary mission performed at Seymour Johnson AFB belongs to the base's host command, the 4th Fighter Wing (FW). The mission of the 4th FW is "Dominant Strike Eagle Airpower...Anytime, Anywhere". The Wing's vision is "Be the Combat Wing of Choice...Follow Us!" The 4th FW provides all-weather F-15E Strike Eagle aircraft and training academy for all

USAF aircrew on the aircraft to provide worldwide deployable airmen and aircraft. In addition to the host unit, Seymour Johnson AFB has three other major tenant units: the USAF 916th Air Refueling Wing, 414th Fighter Group, and the 567th Rapid Engineer Deployable Heavy Operational Repair Squadron.

## 3.3 Military Footprint

Mission and testing activities conducted by Seymour Johnson AFB and the DCR generate a number of impacts that can affect the health, safety, and overall quality of life of the surrounding community. Examples of these mission impacts include noise and vibration from overhead flights or the risk of an aircraft accident. Conversely, the military mission is susceptible to hazards created by certain nearby civilian activities and land use development that may obstruct air space or locate noise sensitive land uses in high noise zones. Understanding the overlapping spatial patterns of these impacts within military operational areas is essential for promoting compatible and informed land use decisions. The following section discusses the military footprints of Seymour Johnson AFB and DCR separately.

Several elements or mission profiles comprise the mission footprint that extends outside the Seymour Johnson AFB and DCR properties.

### Seymour Johnson AFB

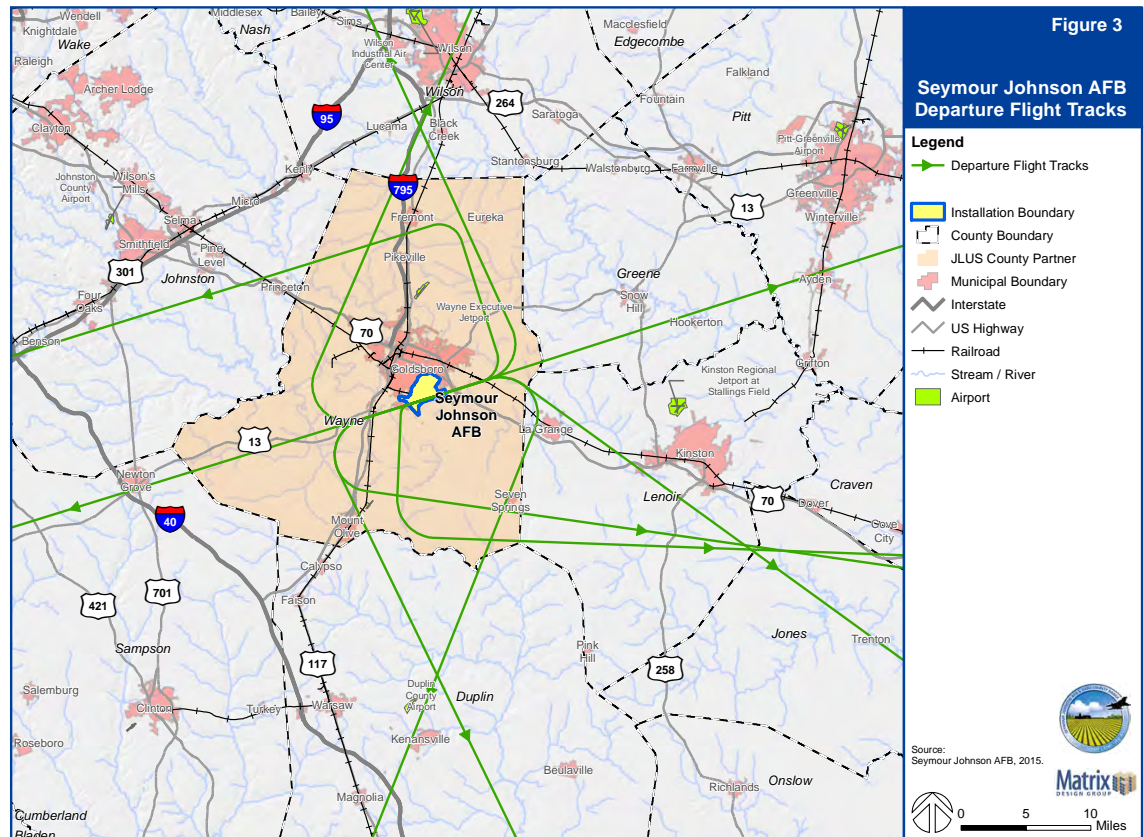
The following outlines the different elements that comprise the Seymour Johnson AFB military operational footprint:

- Flight Patterns
- Special Use Airspace
- Military Training Routes
- Imaginary Surfaces
- FAA Part 77 Obstruction Evaluation Area
- Aircraft Safety Zones
- Aircraft Noise Contours
- High Risk of Adverse Impact Zone (HRAIZ)
- Bird / Wildlife Air Strike Hazard (BASH)

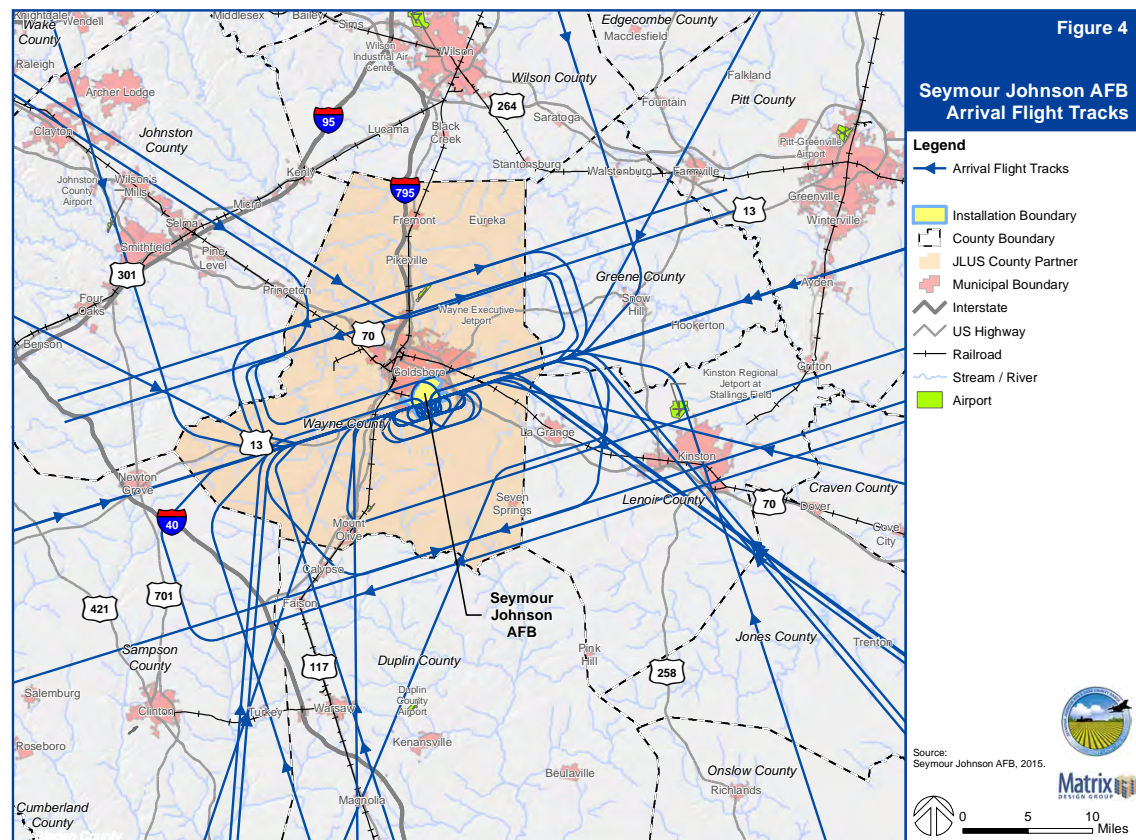
## Flight Patterns

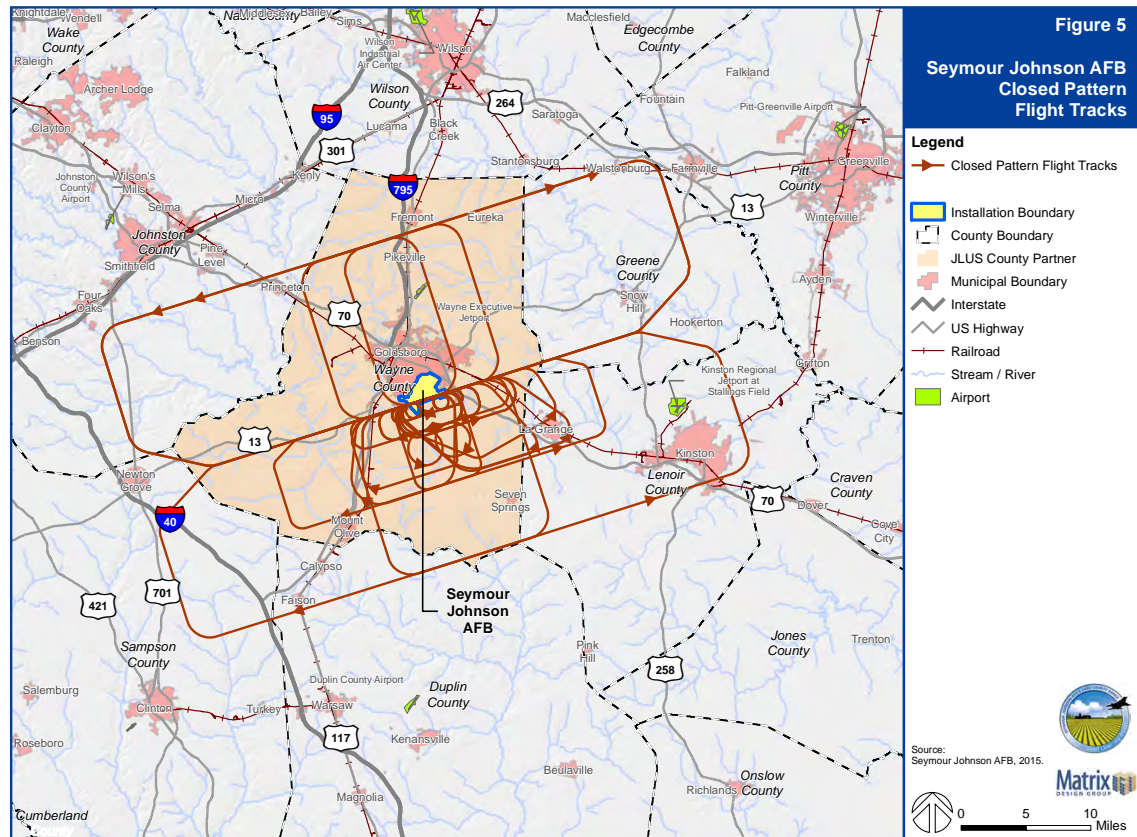
Flight patterns are influenced by various factors including, avoidance of densely populated areas, efforts to keep noise levels low, and coordination with the FAA. Figure 3 illustrates the primary flight departure tracks and Figure 4 illustrates the primary flight arrival tracks used by Seymour Johnson AFB aircraft. The prevailing winds and the mission are the predominant factors that influence which of the many tracks available are most commonly observed.

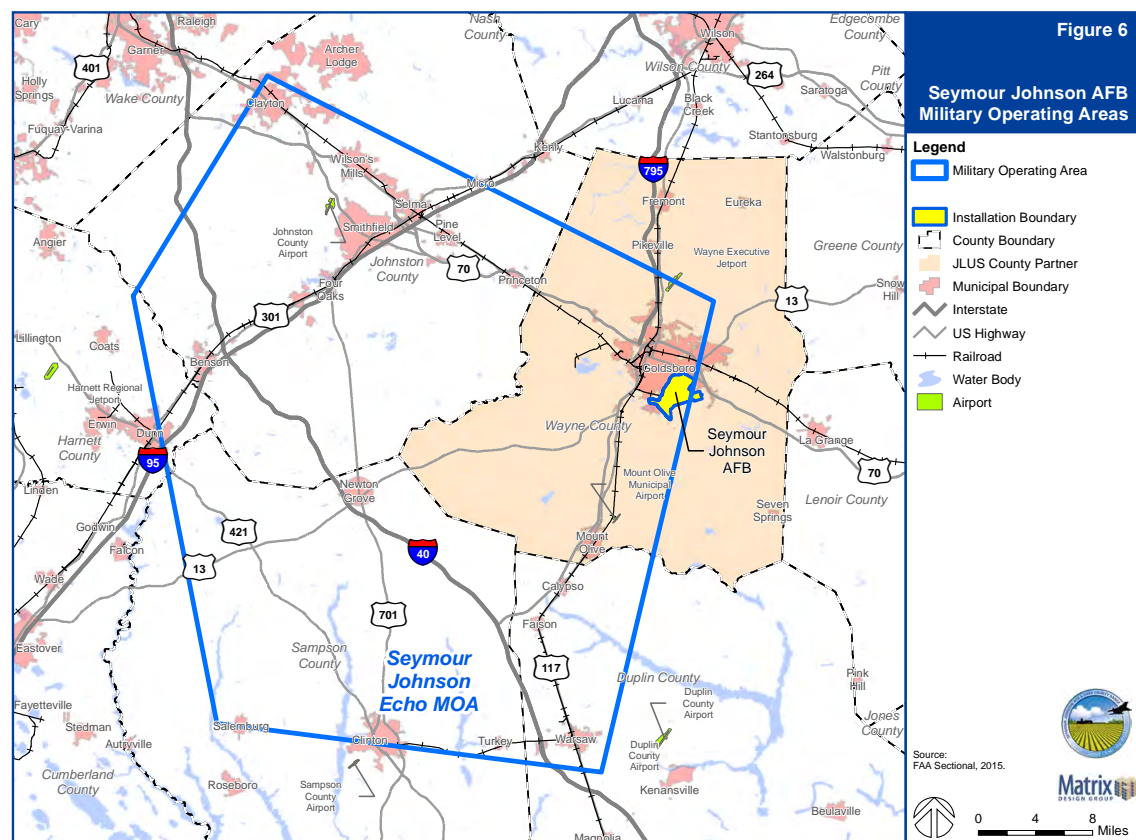
The closed pattern flight tracks are isolated to areas surrounding the installation and consist of low-level altitude flights. As shown on Figure 5, the closed pattern flight tracks tend to stay to the south of the installation, away from heavily populated areas, including Base housing and the City of Goldsboro. The operations performed by the aircraft using these flight tracks can potentially create noise and vibration impacts on land uses under these paths.











### Special Use Airspace

Special Use Airspace (SUA) is airspace where military activity or unusual flight conditions may occur. The designation of SUA serves to alert a nonparticipating aircraft (civilian or military) to the possible presence of these activities. Entering SUA without authorization from the controlling agency may be extremely hazardous to the aircraft and its occupants. Of the various SUA types, Military Operating Areas (MOAs) are designated within the Study Area.

### Military Operations Area

A MOA is airspace designated to separate or segregate certain non-hazardous military activities from Instrument Flight Rules traffic and to identify for Visual Flight Rules traffic where military activities are conducted. MOAs consist of airspace of defined vertical and lateral limits established for the purpose of separating certain military training activities from Instrument Rule (IR) traffic. Examples of activities conducted in MOAs include, but are not limited to:

- Air combat tactics
- Air intercepts
- Low-altitude tactics

Additionally, the DOD has been issued an authorization to operate aircraft at indicated airspeeds in excess of 250 knots below 10,000 feet mean sea level within active MOAs.

There is one MOA associated with Seymour Johnson AFB illustrated in Figure 6. The Seymour Johnson AFB Echo MOA is mostly located outside of the Study Area west of the installation and includes portions of the City of Goldsboro and Wayne County.

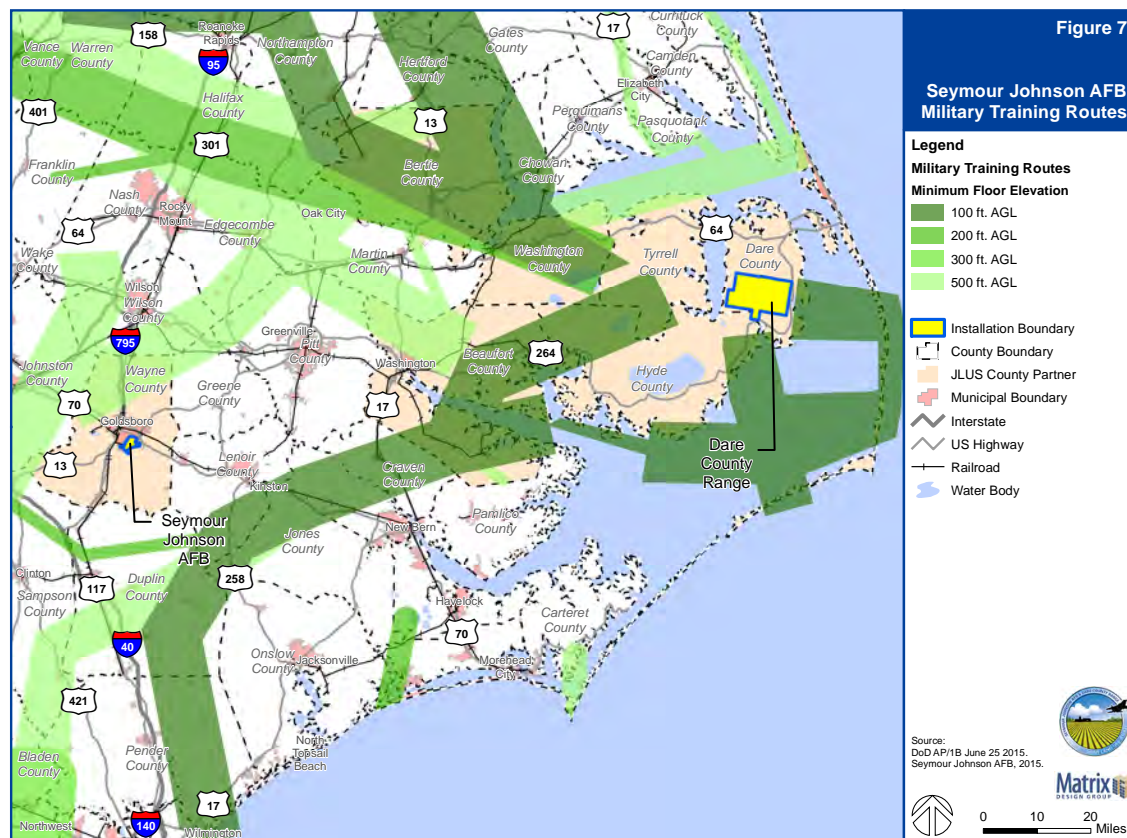


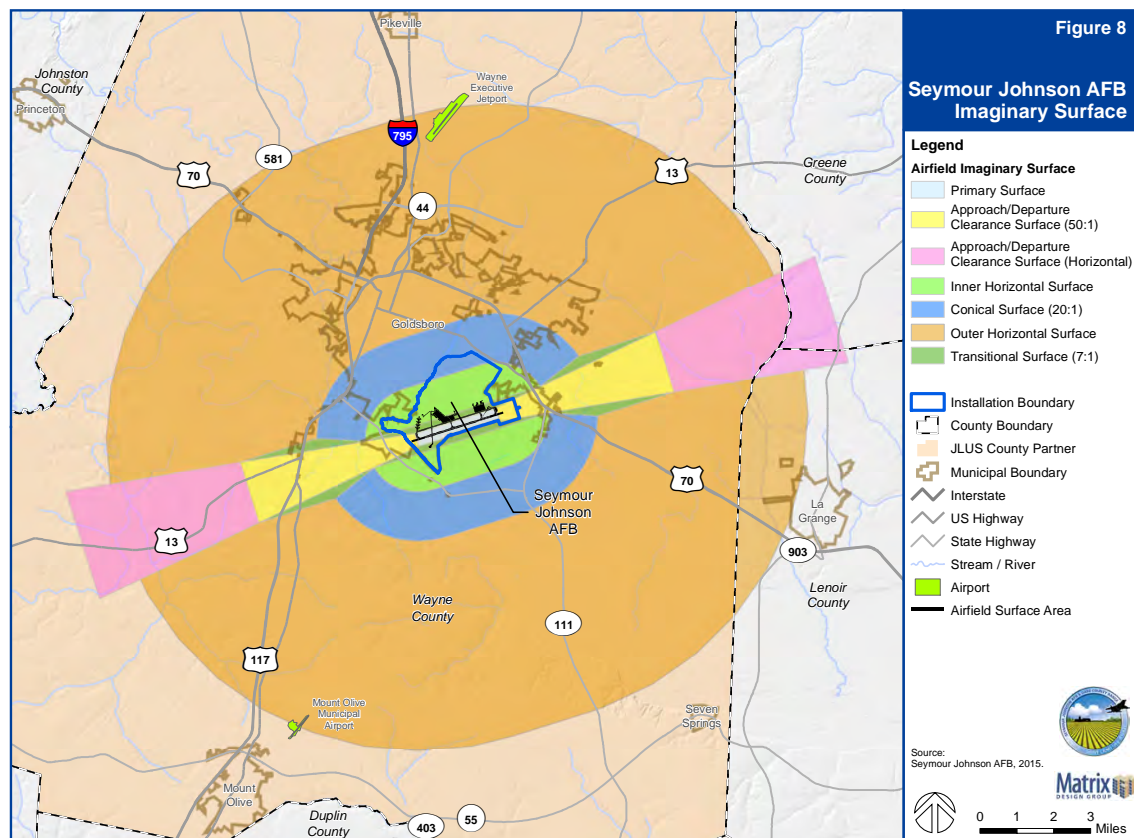
### Military Training Routes

Military Training Routes (MTRs) allow the military to conduct low-level, high-speed training. The purpose of developing and charting MTRs on maps is to make non-participating aircraft aware of the presence of high speed military air traffic in the vicinity. An MTR is a defined volume of airspace designed for use by military aircraft. Aircraft in MTRs are authorized to and usually exceed airspeeds of 250 knots indicated airspeed (KIAS).

The 4th FW has two MTRs in the Seymour Johnson AFB Study Area. About 95 percent of the MTR route segments provide low altitude training with a floor altitude of 500 feet above ground level (AGL) or lower. While some military airspace or MTRs allow flight operations lower than 500 feet AGL, the Air Force does not fly below 500 feet AGL. The MTRs traverse private property outside of Seymour Johnson AFB, the DCR, and areas in between. The altitudes of MTRs in the JLUS Study Area range from 100 feet AGL to 7,000 feet mean sea level (MSL) and the route width goes up to 10 nautical miles (NMs). The MTRs within the Seymour Johnson AFB JLUS Study Area are illustrated in Figure 7.

It should be noted that there is no DOD recommended land use compatibility guidance for areas under MTRs.



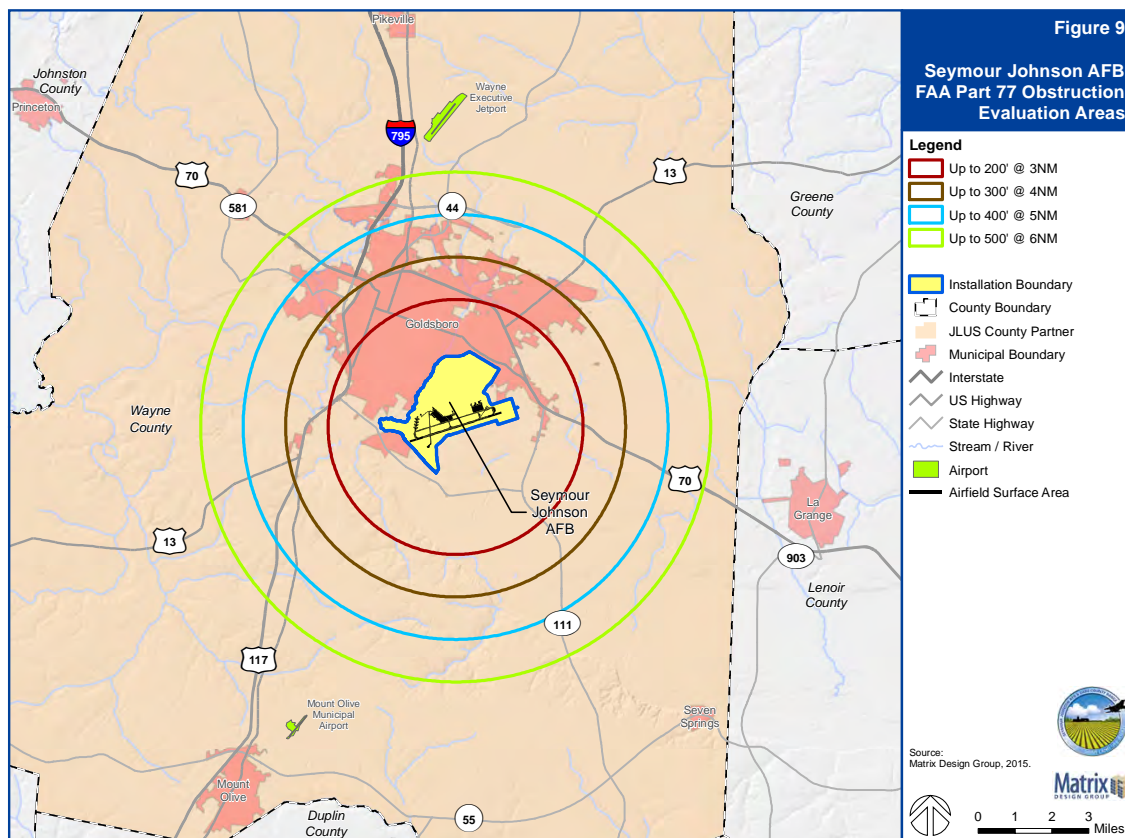


## Imaginary Surfaces

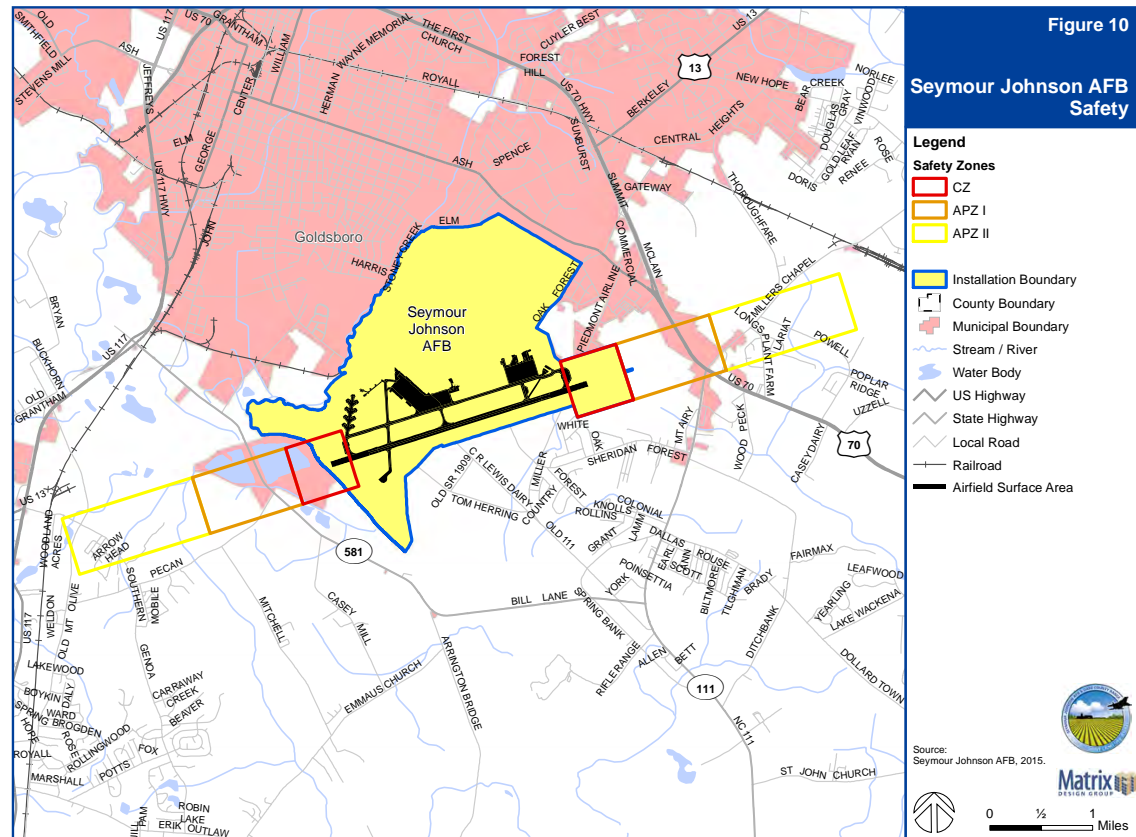
The DOD has identified certain imaginary surfaces around military use runways to determine how structures and facilities are evaluated and identify if they pose a vertical obstruction relative to the airspace around a runway. The imaginary surfaces of an active runway are used to define the required airspace that must remain free of vertical obstructions in the vicinity of aviation operations to ensure safe flight approaches, departures, and patterns. The various imaginary surfaces build upon one another and are designed to guide the height of structures so there are no vertical obstructions to air navigation and operations, either natural or man-made. The imaginary surfaces relative to Seymour Johnson AFB's runways are illustrated on Figure 8.

### Federal Aviation Act (Part 77) Obstruction Evaluation

In addition to the DOD-established imaginary surfaces, the FAA has also established guidance to reduce the potential for accidents surrounding an airfield. This guidance is codified in the Code of Federal Regulations Title 14, Part 77.13 (commonly referred to as “Part 77”) and is used by the FAA to evaluate obstructions. This regulation determines compatibility based on the height of proposed structures or natural features in relation to their distance from the ends of a runway. The guidance and process for obstruction evaluation is more fully detailed in Section 4: Existing Tools as it is not a military-specific element and is not a direct result of Seymour Johnson AFB operations. It is included here because of its relevance with Seymour Johnson AFB. The FAA Part 77 Obstruction Evaluation areas for Seymour Johnson AFB is indicated on Figure 9. Note that this is in addition to, not a replacement of, the imaginary surfaces discussed previously.







## Aircraft Safety Zones

Per Air Force regulations, airfield safety zones are recommended to assist with developing land uses compatible with airfield operations and protect the health and safety of its citizens. The safety zones are referred to as Clear Zones (CZs) and Accident Potential Zones (APZs) I and II. The safety zones are illustrated on Figure 10. The Air Force has identified CZs and APZs at each end of the runways based on historical data for aircraft mishaps.

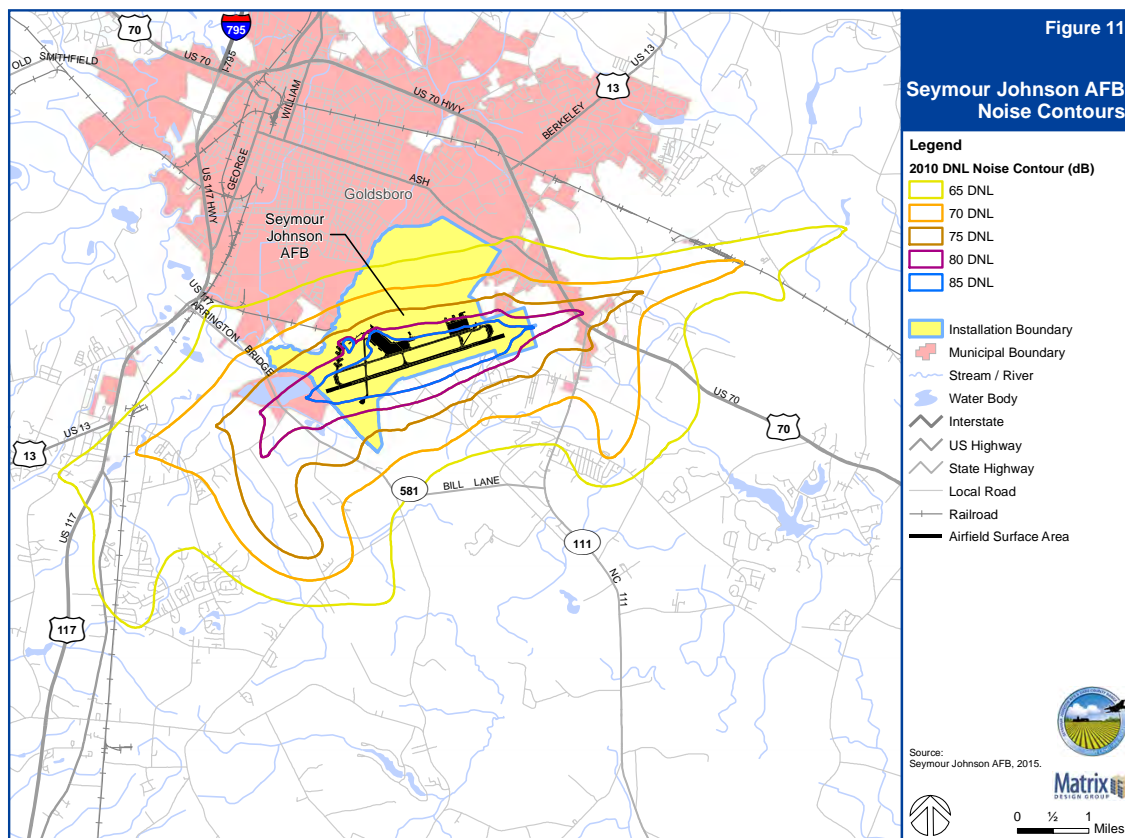
The CZ begins at the end of each runway and is the area where a mishap involving aircraft operations is most likely to occur. Because of this, development is recommended to be completely restricted in the CZ. The APZ I begins at the end of each CZ and typically experiences fewer mishaps than the CZ. Limited development is recommended in the APZ I. The APZ II begins at the end of each APZ I and typically experiences the least amount of accidents of all the safety zones. Development is least restricted in the APZ II due to the reduced risk of accidents.

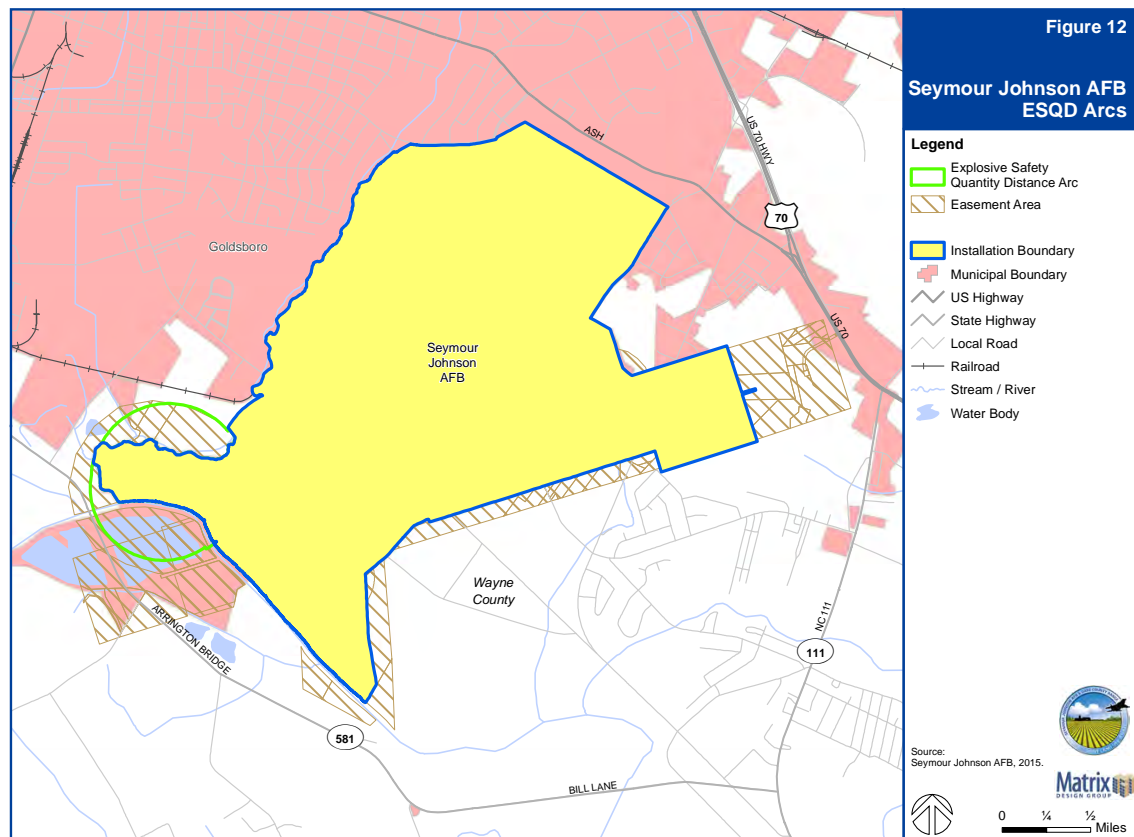


### Aircraft Noise Contours

Noise created through military operations is consistently one of the most common nuisances military bases impose upon the neighboring communities. Because of this, noise contours were created in the Seymour Johnson AFB 2011 AICUZ study that illustrate the areas near the base that are impacted by noise from the base's military operations. The noise contours for Seymour Johnson AFB are depicted on Figure 11.

The city of Goldsboro is the municipality that is affected by noise the most. There is a small area southwest of Seymour Johnson AFB that is located within the 85 Day-Night Average Sound Level (DNL) noise contour, which sounds like the equivalent of a diesel truck driving from 50 feet away. This is the area that experiences the loudest noise from Seymour Johnson AFB military operations. Most other areas of Goldsboro, both north and south of the installation, are located within the 65 DNL and 70 DNL noise contours, which are equivalent to a regular conversation being held with someone five feet away.





## Explosive Safety Quantity Distance Arcs

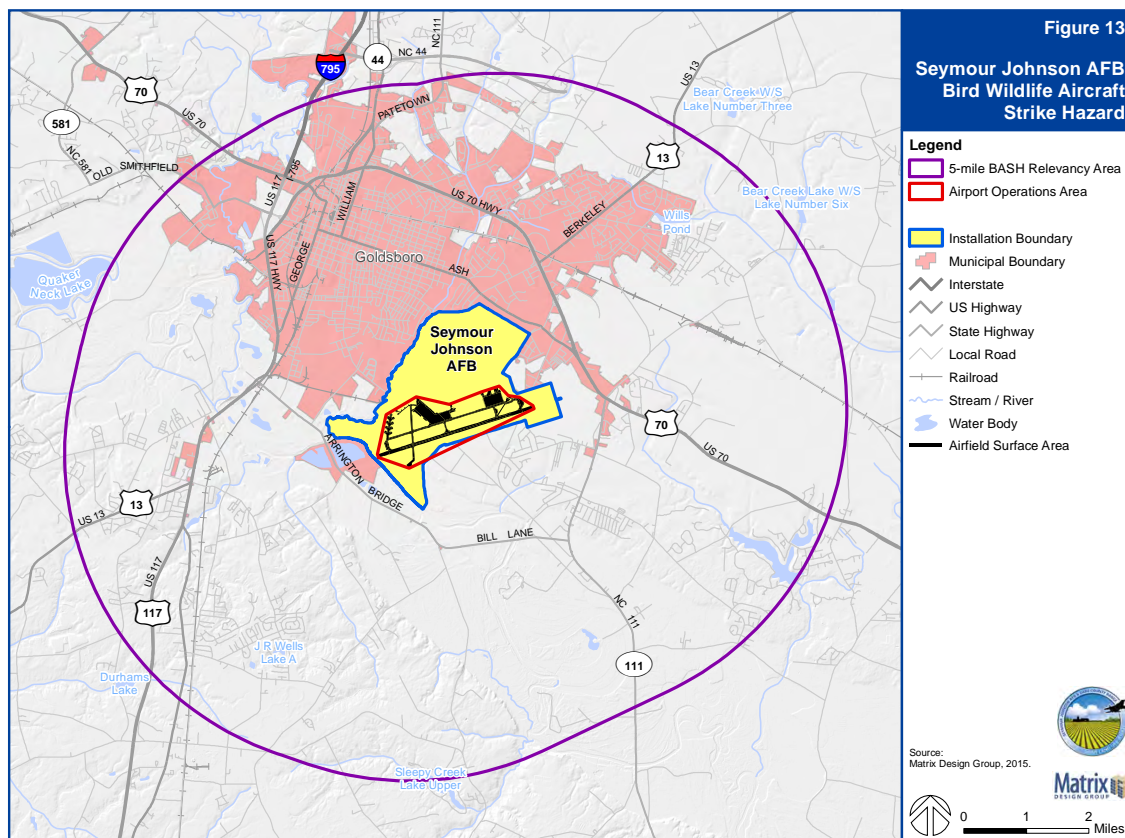
The Explosive Safety Quantity Distance (ESQD) arcs are typically concentric arcs that provide a buffer between ammunition storage and people or structures. The size of the arc is determined by the net explosive weight of the munitions being stored. The ESQD arcs established at Seymour Johnson AFB are illustrated on Figure 12. In cases where arcs extend beyond the installation boundary, easements are in place on the affected land to prevent residential development from occurring there. These easements are established to ensure the safety of the general public.

For Seymour Johnson AFB, the arcs established are relatively small and only extend outside of the installation boundary at the western end of the installation. A small portion of land owned by the city of Goldsboro lies within the ESQD arc, this land is currently undeveloped.

### Bird /Wildlife Aircraft Strike Hazard

Due to the nature of their operations, airports typically have large, open, grassy areas where wildlife can congregate. Additionally, some land uses, like golf courses, are often situated near airports because they can easily meet the height and density restrictions imposed by aircraft activity. Unfortunately, golf courses also have large, open, grassy areas and oftentimes also feature water – another wildlife attractant. To help maximize safety to the pilots, military installations, and neighboring communities, the FAA requires a minimum five-mile radius extending outward from the air operations area to be free of wildlife attractants. This is an effort to minimize mishaps between wildlife and aircrafts. The five-mile minimum separation distance for Seymour Johnson AFB is illustrated in Figure 13.

The Seymour Johnson 2017 BASH Plan notes several issues regarding the areas surrounding the military installation. Specifically, the Goldsboro Waste Water Treatment Plant to the southwest of the airfield acts as a wildlife attractant, and the Atlantic Flyway, which is a bird migration route, is located over Seymour Johnson AFB.



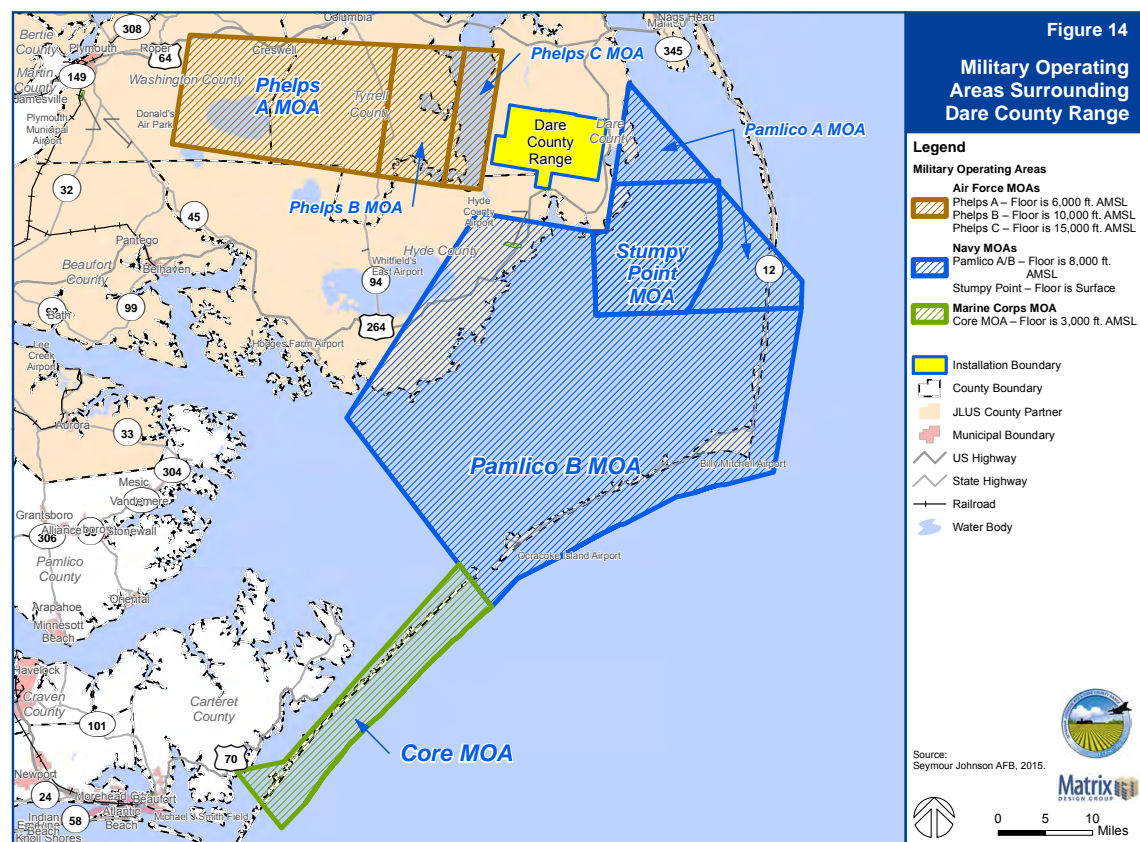
### Dare County Range

The following outlines the different elements that comprise the DCR military operational footprint:

- Military Operations Areas
- Restricted Areas
- Military Training Routes
- Aircraft Noise Contours
- High Risk of Adverse Impact Zone







### Military Operations Area

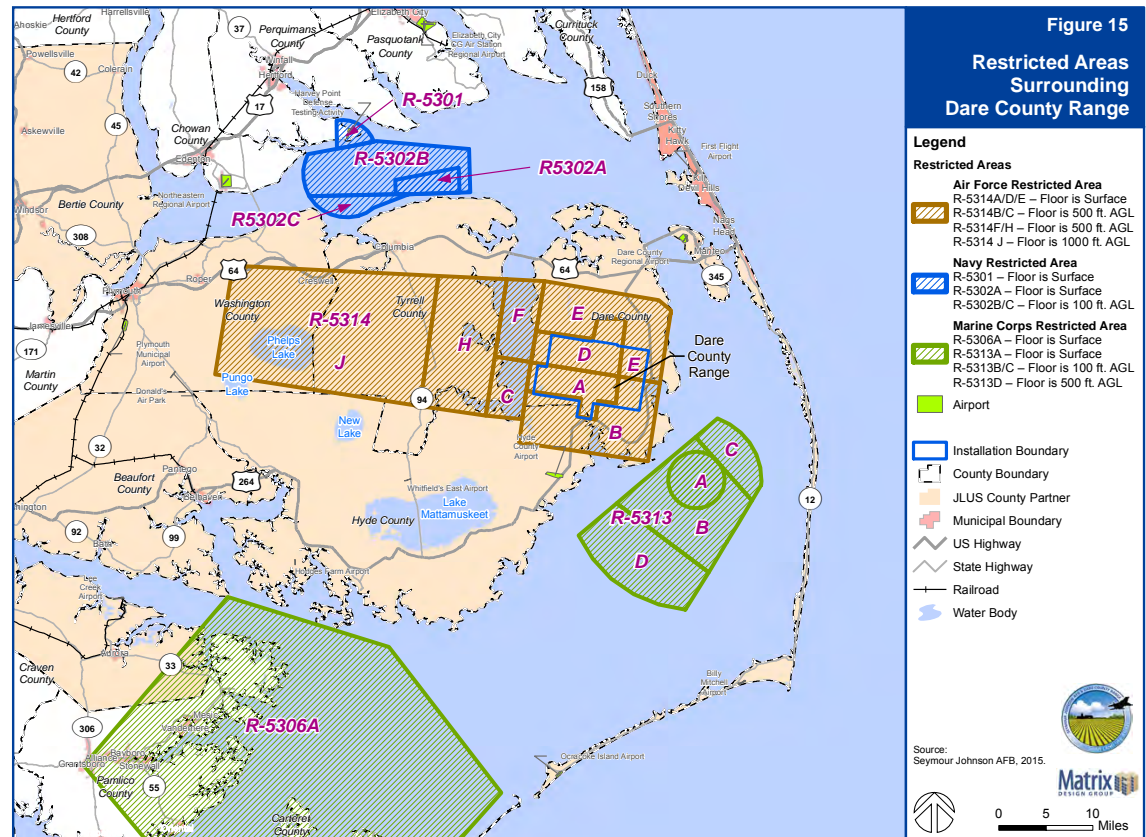
DCR has a multitude of MOAs, but only one that is related to Air Force military operations. The Phelps MOA is the Air Force MOA and is divided into three MOAs – Phelps A, Phelps B, and Phelps C. The Phelps MOAs are located immediately west of the DCR and overlap with Restricted Airspace R-5314 areas C, F, H, and J. The MOAs extend over private property outside of Seymour Johnson AFB and DCR.

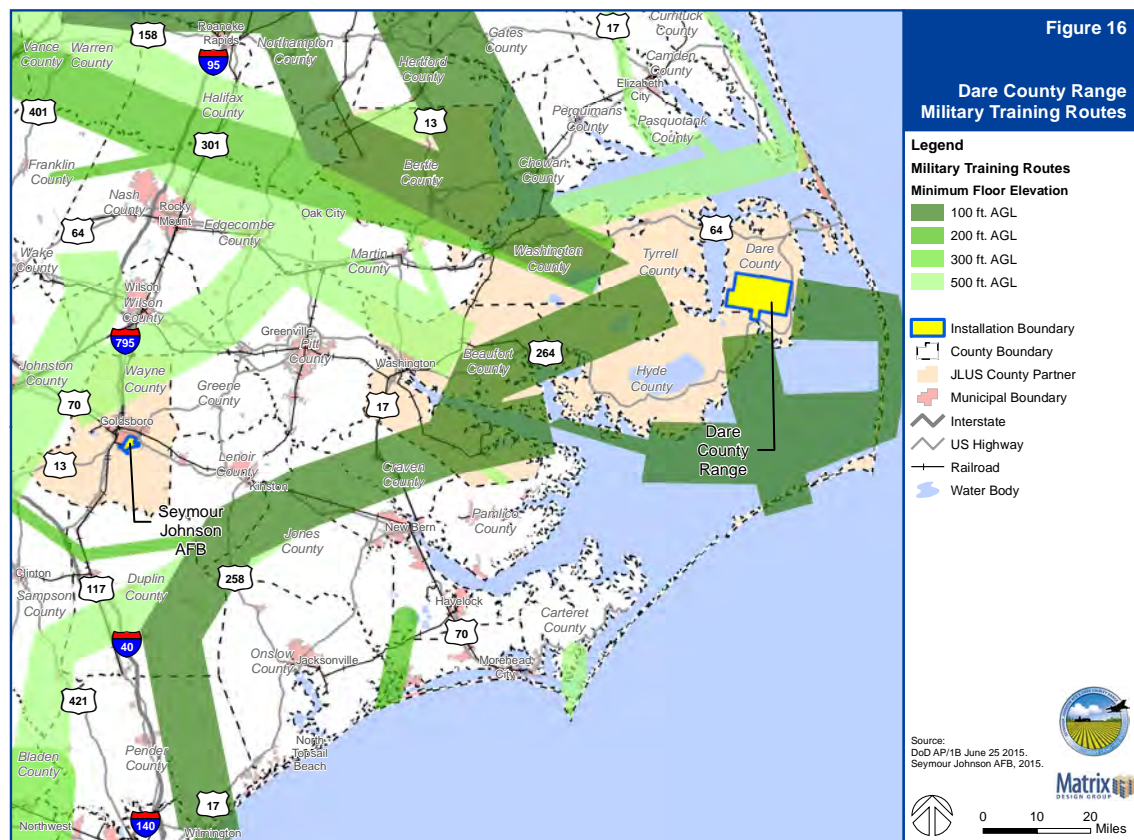
The Pamlico and Stumpy Point MOAs are areas designated south and east of the DCR within the Study Area and are operated by the US Navy. They extend along the eastern shoreline of Hyde and Dare Counties, over the Pamlico Sound and the Outer Banks from Ocracoke to the area between Avon and Salvo. Finally, the Core MOA is located further south of DCR and is operated by the Marine Corps. All of the MOAs associated with DCR are depicted on Figure 14.

## Restricted Areas

Similar to the MOAs related to the DCR, the range has a multitude of restricted areas, but only some of them are for Air Force military operations. The restricted areas related to Air Force operations are R-5314 A through F, H, and J. Restricted Areas designate locations where activities occur that create usual and often invisible hazards to aircraft. These restricted areas directly support the Air Force by enabling crews to train at the DCR. These areas are located directly on top of DCR and extend westward, though Tyrrell County and into Washington County.

The other restricted areas associated with DCR are R-5301, R-5302A, B, and C operated by the Navy; and R-5313 A, B, C, and D, and R-5306 A operated by the Marine Corps. All of the restricted areas associated with DCR are illustrated on Figure 15.

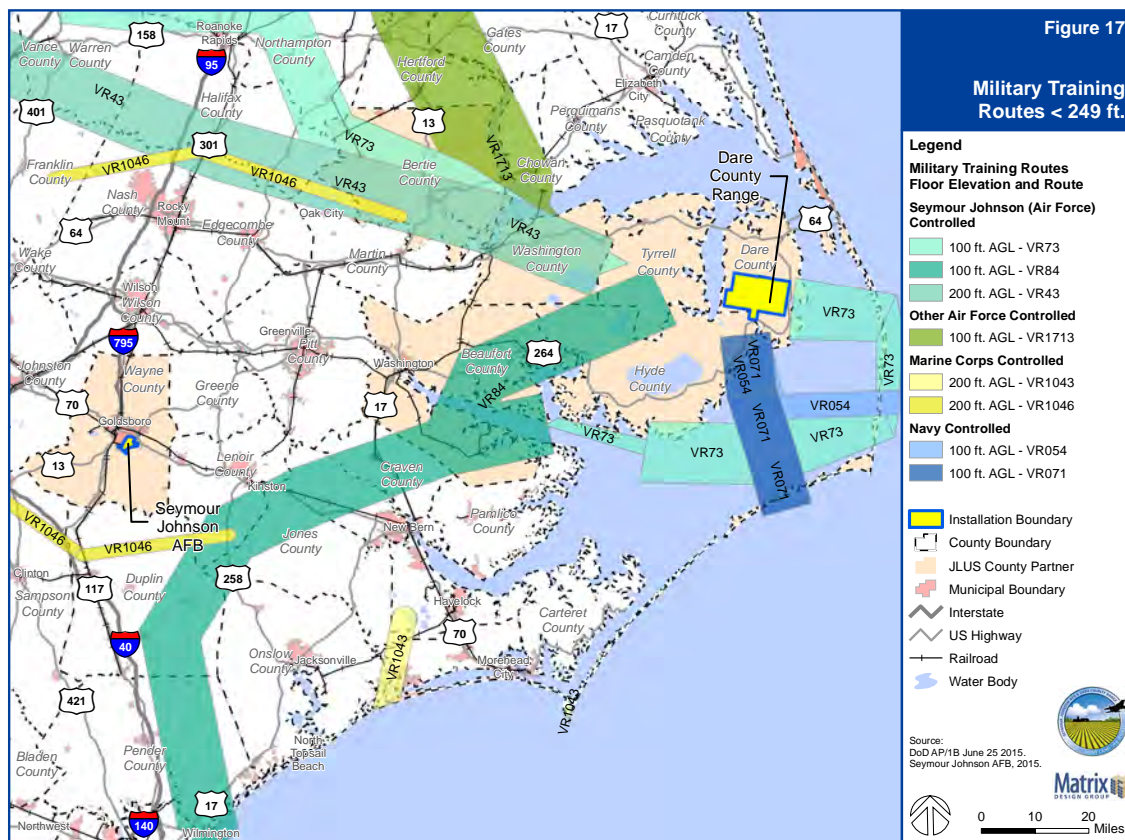




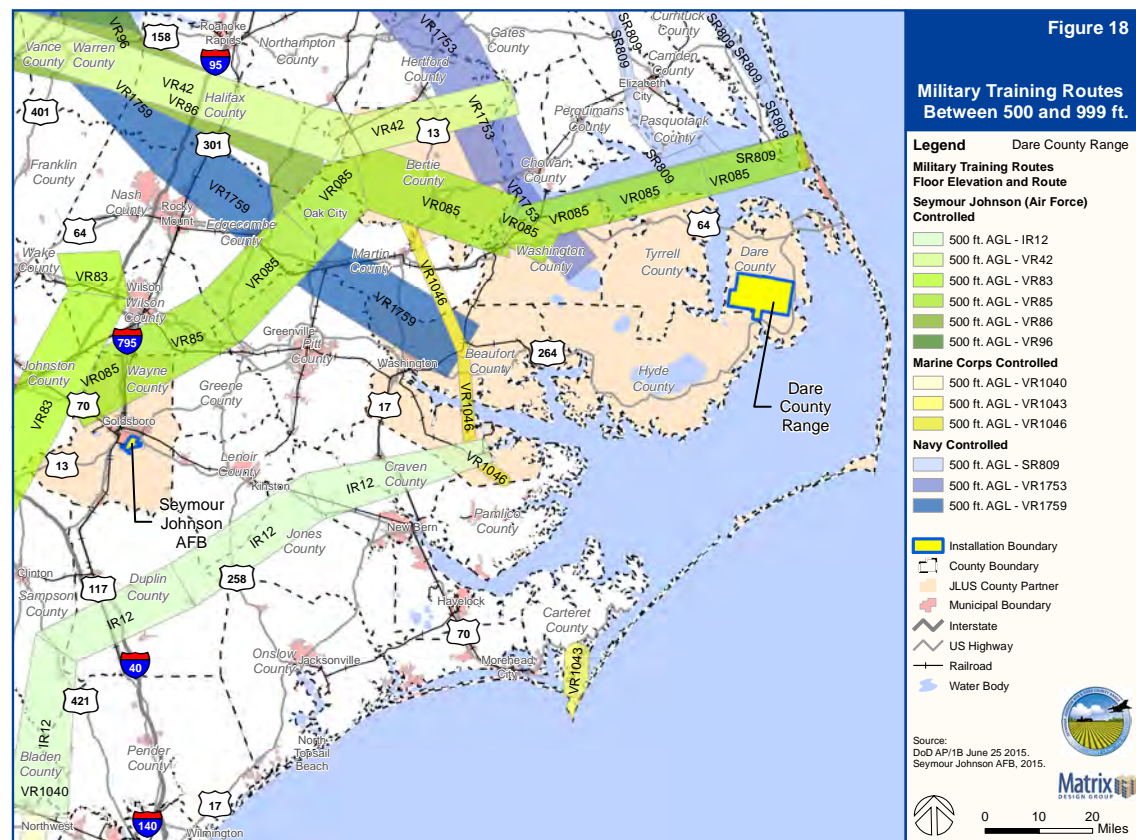
### Military Training Routes

DCR provides the only combination of MTRs and low-altitude range airspace on the East Coast, within proximity of Seymour Johnson AFB, available to accomplish the low-altitude training that is critical to air-to-air and air-to-ground precision airpower combat capability of the F-15Es. The 4th FW manages six MTRs within the DCR JLUS Study Area. The altitudes of MTRs in the DCR JLUS Study Area range from 100 feet AGL to 7,000 feet MSL and the route width extending up to 10 nautical miles (NM). A composite map of all the MTRs in the DCR JLUS Study Area is depicted on Figure 16. Figures 17 and 18 show the MTRs in the DCR Study Area below 250 feet and between 500 and 999 ft. (There are no MTRs between 250 and 500 feet within the Study Area.).





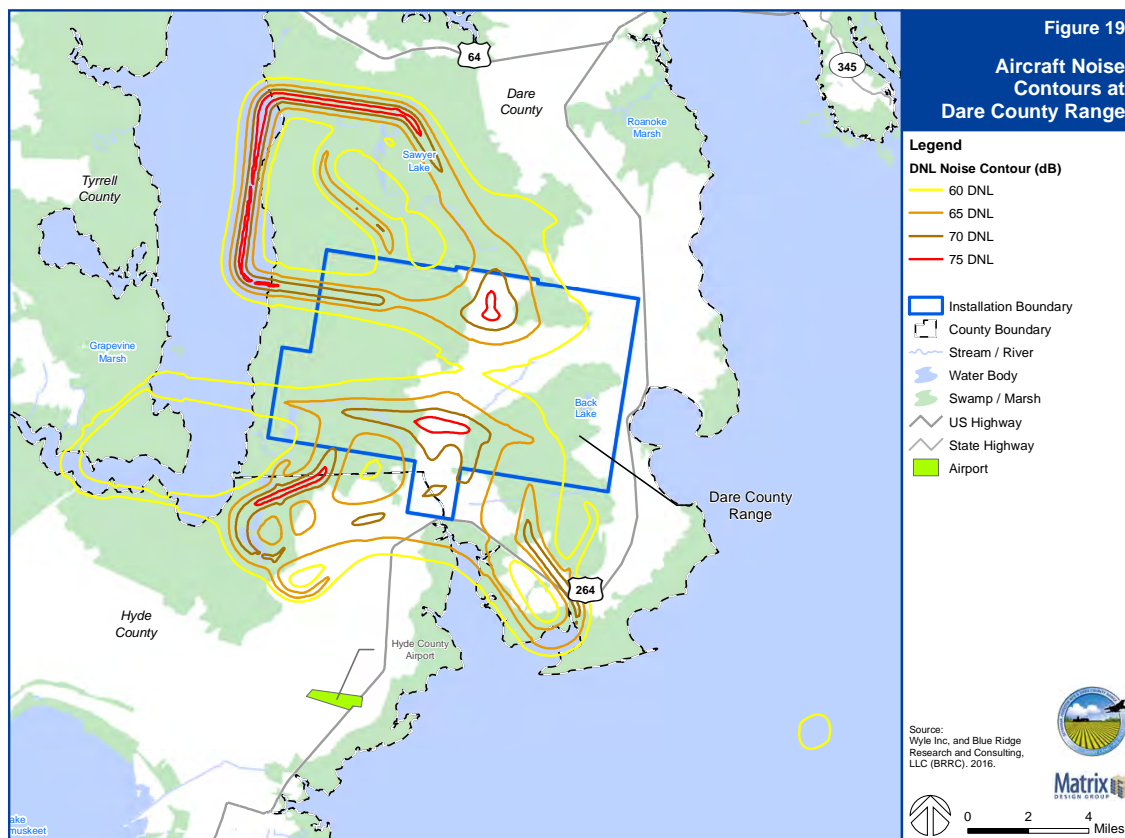


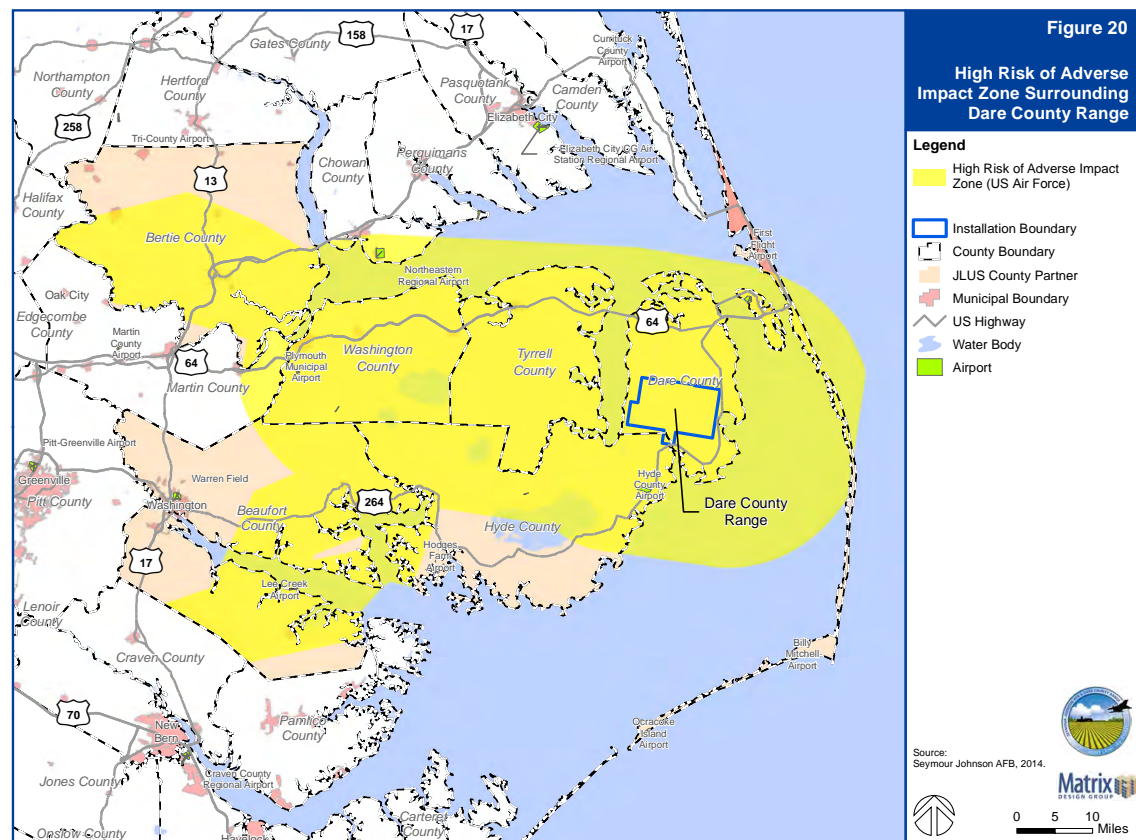


## Aircraft Noise Contours

Noise contours associated with the Dare County Range were developed by the Navy with input from Seymour Johnson AFB as part of the Range Air Installations Compatible Use Zones (RAICUZ) Study completed in 2007. The noise levels were calculated based on mission types and profiles (average altitude, average thrust setting, and average airspeed) and delivery profiles including dive bombing, level bombing, pop-up delivery, and strafing.

Because of low level flight associated with the DCR, the noise contours extend outside the DCR into Dare, Hyde and Tyrrell Counties at levels between 65 and 75 dB. There is one pocket over the Alligator River where the noise contours are between 70 and 75 dB. Overall, the DCR has a much lower sonic impact on its surrounding communities than Seymour Johnson AFB. The noise contours at the DCR are illustrated on Figure 19.





### USAF High Risk of Adverse Impact Zone

The establishment of the United States Air Force (USAF) High Risk of Adverse Impact Zone (HRAIZ) for DCR came about from the Mission Compatibility Evaluation Process Annual Report to Congress on the DOD Siting Clearinghouse (CY2013). During Technical Interchange Initiative meetings, Wind Turbine-Military-Unique Airborne Radar Testing Interference was discussed. The team focused the attention of DOD on obtaining a better understanding of the technical limitations associated with these sophisticated radars when operating in the air-to-ground mode and with wind turbines within the field of view of the airborne radar. The outcome of the meeting helped Seymour Johnson AFB, among other installations, to establish a High Risk of Adverse Impact Zones surrounding DCR. The HRAIZ for the DCR is illustrated on Figure 20.





# 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 to help minimize encroachment. This chapter provides an overview of compatibility tools currently used or applied in evaluating and addressing compatibility issues in the Seymour Johnson Air Force Base (AFB) and Dare County Range (DCR) Joint Land Use Study (JLUS) Study Areas. 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 organized by level of government.

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.

The tools listed in this chapter are not exhaustive, but are meant to provide a general overview of the primary tools currently utilized in the JLUS Study Area.

## 4.1 Federal Plans and Programs

### 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 including Seymour Johnson AFB, 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). Acting involves implementation of programs. Lastly, monitoring involves maintaining awareness of mission needs and encroachment issues.

### Department of Defense Area Planning for Military Training Routes (AP/1B)

The Department of Defense provides textual and graphic descriptions and operating instructions for all military training routes (MTRs) and refueling tracks/anchors in the document AP/1B DOD Flight Information Publication Area Planning Military Training Routes. This planning document for MTRs includes general guidance, instrument routes (IR), visual routes (VR), slow speed low altitude routes (SR), refueling tracks and anchors, and avoidance locations. Guidance includes route development, scheduling and coordination, flight plans, and aircraft separation.



There are several MTRs and the BURNER Air Traffic Control Assigned Airspace around Seymour Johnson AFB and Dare County Range. Other MTRs in the Study Area are controlled and utilized by other branches of the military.

### **Department of Defense Energy Siting Clearinghouse**

Section 358 of the 2011 National Defense Authorization Act pertains to studying the impacts of the development of new energy production facilities on military operations and readiness. For example, tall structures constructed for energy production facilities and transmission projects, such as wind turbines and solar power towers as well as electrical transmission towers sited in or under designated low-altitude MTRs and special use airspace at Seymour Johnson AFB, the DCR and in the northeast North Carolina JLUS Study Area may present a serious collision hazard to military aircraft operations. Additionally, wind turbines located near military test and training ranges can impact airborne military radar capability.

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 time frame 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 US. 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 US.

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

Another important outcome of the Act is FAA Regulation Title 14 Part 77, commonly known as Part 77, which provides the basis for evaluation of vertical obstruction compatibility. This regulation determines 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, Wayne County and the City of Goldsboro can easily assess the height restrictions near the Seymour Johnson AFB airfield. Additional information on Part 77 is located on the FAA Internet site at <http://www.faa.gov/>. The height standards to determine obstructions within navigable airspace established by Part 77 can be found in Section 3.6 of the Background Report.

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.

Of all the jurisdictions in the study area, Hyde County has implemented some of the imaginary surfaces height requirements in its zoning ordinance.

### Noise Control Act of 1972

The Noise Control Act of 1972 identified that noise not adequately controlled has the potential of endangering the health and welfare of people. It states that all Americans are entitled to an environment free from noise that can jeopardize their general health and quality of life. Along with state, local, and territorial governments, actions from the federal government were needed to ensure that the objectives of the Act were met.

Concurrently, military installations were experiencing the impacts from encroaching urban development located adjacent to the installation and the resulting complaints regarding noise from military flight operations. In 1973, the DOD responded by establishing the AICUZ program.

The Noise Control Act and the AICUZ program are important because encroaching development and increased population near military installations such as Seymour Johnson AFB and the DCR often creates compatibility issues. As communities grow, it is important that the military installation, developers, and the communities work together to mitigate the issue of noise and develop ways to coexist successfully.

### 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 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.

### Sentinel Landscapes Program

The US Departments of Agriculture, Defense and the Interior announced the Sentinel Landscapes Partnership in 2013. Sentinel Landscapes works to accomplish three critical goals: preserve agricultural lands, assist with military readiness, and restore and protect wildlife habitat. In this unique collaboration, the federal departments are working with state, local, and private partners to preserve and restore natural lands important to the nation's defense mission.

The Eastern North Carolina Sentinel Landscape, one of the six current Sentinel Landscapes, works to address top priority encroachment concerns identified by the military, including restrictions related to species conservation and potential development of privately owned agriculture, forest, and open space lands. The program works with federal and state partners to offer voluntary landowner incentives protecting aviation training routes through the promotion of compatible land uses. Through the North Carolina Department of Agriculture and Consumer Services, qualifying landowners in the northeast North Carolina JLUS Study Area are able to access funding assistance for implementing best management practices for land and water resource management. Other partners offer cost sharing opportunities to local governments for conserving priority wildlife habitat.

### US Avian Hazard Advisory System

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

formulate the bird activity and movement data. The model is available for use by agencies and the general public, accessible from the USAHAS website at <http://www.usahas.com/>.

## 4.2 Seymour Johnson AFB Plans and Programs

Seymour Johnson AFB plans and programs provide guidance for land uses and development activities on the installation. These tools govern land use decisions that occur inside the fenceline or within the boundary of the military mission footprint in relation to the military mission or proposed military missions.

These tools provide guidance and establish measures for standard operating procedures during certain events such as weapons firing. There are various installation tools that are instrumental in assisting and guiding land use decisions as they interface with the military mission.

### Air Installation Compatible Use Zone

The United States DOD initiated the AICUZ program to assist government entities and communities in anticipating, identifying, and promoting compatible land use and development near military installations with aircraft activity. The AICUZ program involves coordinating the efforts of installation commanders and local community leaders and other government agencies to encourage compatible development of land in proximity to military airfields. It also serves to protect the health, safety, and welfare of civilians and military personnel by encouraging land development compatible with aircraft operations, while protecting the public investment in the installation. This program recommends compatibility measures and land uses that are compatible with specific elements of military airfields including elevated sound levels, accident potential zones, and obstruction clearance criteria.

The AICUZ program has two objectives. First to assist local, regional, state and federal officials in protecting and promoting the public health, safety, and welfare by promoting compatible development within the AICUZ area of influence. And second, to protect Air Force operational capability from the effects of land use which are incompatible with aircraft operations. The Seymour Johnson AFB AICUZ was most recently updated in 2011.

### Integrated Natural Resources Management Plan

The Integrated Natural Resources Management Plan (INRMP), most recently updated as a Preliminary Draft in July 2015, was created to ensure that long range habitat protection and natural resource management occurs at the installation and supports mission readiness. The INRMP outlines various natural resources including, when applicable, threatened and endangered species and important habitat, management of noxious weeds, grasslands and wildland fire, wildlife and riparian management, water resources and water rights, inter-agency responsibilities and coordination efforts, and the overall management plan for natural resources at Seymour Johnson AFB and the DCR to ensure no loss of capability for training exercises. The INRMP serves as a planning tool for future activities at Seymour Johnson AFB and DCR as a road map for the stewardship of natural resources found on the base.

### Comprehensive Range Plan

The FY 2015-2018 Comprehensive Range Plan (CRP) is a road map for management of the DCR and considers all aspects of range operation and maintenance. The purpose of the plan is to enhance the compatibility of land and airspace use on and around the range, provide guidance to meet short and long term needs, identify any existing or potential conflicts, and propose alternative solutions and recommendations. The plan includes a vision statement and five major goals, existing conditions, a range investment area analysis, strategy, and supporting documents.

### 4.3 State of North Carolina Plans and Programs

---

#### House Bill 254: Notice of Land-Use Planning and Zoning Changes

House Bill 254, “An Act Amending the Requirements Related to Notice of Land-use Planning and Zoning Changes to be given to a Military Base by Counties or Cities near the Military Base”, was enacted in the 2013 General Assembly Session. The Bill establishes that prior to any changes located within five miles of a military base, the Board of Commissioners must provide written notice to the commander of the military base. The written notice must be sent between 10 to 25 days before the public hearing. Prior to the date of the public hearing, the military may provide comments or analysis to the board regarding the compatibility of the proposed changes with military operations at the base. If the board does not receive a response within 30 days of the notice, the military is deemed to waive the comment period.

The proposed changes requiring notice are:

1. Changes to the zoning map.
2. Changes that affect the permitted uses of land.
3. Changes relating to telecommunications towers or windmills.
4. Changes to proposed new major subdivision preliminary plats.
5. An increase in the size of an approved subdivision by more than fifty percent (50%) of the subdivision's total land area including developed and undeveloped land.

#### House Bill 433: Military Lands Protection Act of 2013

North Carolina’s House Bill 433 was established in 2013, in efforts to support the state’s military installations by developing height regulations and standards for buildings and/or structures within proximity to a military installation. Other concerns addressed by the legislation are loss of air and sea spaces, along with radio frequency encroachment.

Counties and/or cities that are located near a military installation are prohibited from constructing or approving a tall building and/or structure without consent from the Building Code Council. If a structure is to be developed, the person proposing the construction must submit the following to the Building Code Council.

- Identification of the major military installation and the base commander of the installation that is located within five miles of the proposed tall building or structure.
- A copy of the written notice sent to the base commander of the installation that is located within five miles of the proposed tall building or structure.
- A written "Determination of No Hazard to Air Navigation" issued by the FAA pursuant to Subpart D of Part 77 of Title 14 of the Code of Federal Regulations for the proposed tall building or structure.

After receiving the information, the Building Code Council must request a written statement from the base commander determining the potential impact of the proposed building and/or structure. The Building Code Council must not approve a building or structure that would encroach or interfere with any major military installation.

#### House Bill 484: Permitting of Wind Energy Facilities

House Bill 484 establishes a system of permits for the siting and operation of wind energy facilities in North Carolina. The bill was amended in April 2013 to incorporate future compatibility with the state’s military operations. The



permit process involves a pre-application site evaluation to determine if the site poses a risk to military operations. The permit pre-application package must include a description of any known potential impact on military operations. A notice to interested parties includes a notice to the commanding military officer of any potentially affected major military installation. A permit can be denied if it is found that the proposed facility would encroach upon or otherwise interfere with the mission, training, or operations of any major military installation or branch of military in North Carolina and result in a detriment to continued military presence in the state.

### State Land Use Policy and Control

In 1974, the State of North Carolina granted individual counties and municipality's authority to develop comprehensive or land use plans. Counties and cities that are not subject to the Coastal Area Management Act (CAMA) Land Use Plan are not required to adopt a comprehensive or land use plan.

### North Carolina Coastal Area Management Program

In response to the 1972 Coastal Zone Management Act, North Carolina established its own CAMA in 1974. CAMA established a Coastal Resources Commission (CRC) which requires 20 coastal counties to develop regulated land use planning, by 1978, the North Carolina Coastal Management Program was federally approved.

The CAMA development handbook and CRC regulate development within the 20 coastal counties in efforts to protect the coastal resources and future land development. The counties of Beaufort, Bertie, Dare, Hyde, and Washington are included in the 20 coastal counties covered by CAMA.

## 4.4 Local Jurisdiction Planning Tools

The North Carolina General Assembly granted authority to counties and municipalities to regulate land use through General Statute 160A-174 and 153A-121. The counties and municipalities are not required to exercise these authorities, but if done, they must be exercised in accordance with specific provisions of state law. The nature of a jurisdiction's authority to regulate local land use depends on that jurisdiction's form of local government.

### Beaufort County

#### Comprehensive Plan

Beaufort County has not developed a Comprehensive Plan at this time.

#### Joint CAMA Land Use Plan

The 2006 updated Joint CAMA Land Use Plan comprises areas located outside the county's municipal planning area, including the Towns of Aurora, Belhaven, Pantego, Washington Park, and Chocowinity. The CAMA Land Use Plan does not acknowledge military overflight or include any land use policies relative to military overflight.

#### Zoning Ordinance

Beaufort County has not adopted a zoning ordinance.

#### Building Code

Beaufort County has adopted the 2015 North Carolina Existing Building Code. The Code does not address sound transmission from external sources into interior building spaces.

### Bertie County

#### Comprehensive Plan

Bertie County has not adopted a Comprehensive Plan.

### County Land Use Plan

The 2008 Bertie County Land Use Plan is prepared in accordance with the requirements contained in the North Carolina CAMA, the North Carolina CRC Land Use Planning Requirements, and the relevant planning process requirements of Local Planning and Management Grants and serves as an overall “blueprint” for the development of Bertie County.

The plan includes an analysis of land use and development patterns, projected land use needs and a land suitability analysis and plan for the future. A review of the Land Use Plan reveals the following areas of interest related to military compatibility:

- The plan includes a section titled “Things to Consider to Identify Inappropriate Land Uses,” which includes undesirable characteristics, such as noise, vibration, and light.
- The plan does not address the military presence from a land use compatibility perspective.

### Zoning Ordinance

Bertie County has not adopted a zoning ordinance.

### Building Code

Bertie County follows the 2012 North Carolina Uniform Statewide Building Code which does not address sound transmission from external noise sources to internal building spaces.

## Dare County

### Comprehensive Plan

Dare County has not adopted a Comprehensive Plan.

### Land Use Plan

As required by the State of North Carolina, Dare County updated their Land Use Plan to include CAMA standards and regulations.

Dare County’s Land Use Plan was established in 2009, and contains a vision statement and objectives based on past and current populations in addition to land use patterns to determine goals for future land uses. Dare County’s development vision states the need to preserve the county’s historic, cultural, and natural resources.

There are currently 82 policies stated within the land use plan. Under Section Two, Land Use Compatibility, it discusses policies and implementation strategies in order to mitigate conflicts with existing and future land uses associated with the county’s airports, landing areas, and the DCR.

#### *Policy LUC #11*

*Due to potential land use conflicts and hazardous conditions associated with airports and landing strips, development of adjacent properties should be done in awareness of these potential conflicts and conditions. Proposals to expand existing services at the Dare County Regional Airport or other airport facilities in Dare County shall be reviewed on a case by case basis. Support or opposition may be offered depending on the terms of the proposal, its potential impacts on the community, and its potential economic and transportation benefits.*

#### *Policy LUC #12*

*Proposals to expand the area of the existing bombing ranges on the Dare County Mainland should be reviewed on a case-by-case basis with support or opposition offered depending on the terms of the proposal and its potential impacts on the local community.*

### **Zoning Code**

Dare County adopted a zoning ordinance which was amended in 2014. Included in the Dare County Zoning regulations is a stand-alone Airport Overlay District to regulate the use of property in the vicinity of the Dare County Regional Airport but not the DCR.

### **Building Code**

Dare County follows the 2012 North Carolina Uniform Statewide Building Code. The Dare County Building Code does not address sound transmission from external noise sources to internal building spaces.

### **Easements**

Property owners within Dare County are able to enter into an easement agreement with an organization or public agency. An easement can grant the right to enforce restrictions and monitor the property. For example, an aviation easement protects the use of airspace above a specified height. Programs typically compensate property owners for easements due to the loss of use of land.

Most rural counties, including Dare County, lack the funding to acquire easements to protect the land that may improve military compatibility. Currently, there are no existing easements within Dare County.

## **Hyde County**

### **Comprehensive Plan**

Hyde County has not adopted a Comprehensive Plan.

### **CAMA Core Land Use Plan**

The Hyde County CAMA Core Land Use Plan covers land use concerns and issues that may impact future growth over a 20-year period. The vision of Hyde County states the need to “encourage sustainable economic growth and residential development” and this development should be conscious of the existing preservation measures for the county’s natural resources, cultural, historic, and rural character.

The following policies within the plan are found to be indirectly compatible with military operations:

#### *4. Land Use Compatibility*

##### *(A) Management Goal*

##### *Implementing Actions – Residential*

*1.9 Hyde County will pursue adoption of county-wide zoning to regulate development, including residential properties.*

*1.13 Hyde County supports providing adequate conservation/open space buffers between areas designated for residential development as indicated on the future land use map and any adjacent non-residential land use, except agricultural areas. This action will be supported by the zoning and subdivision ordinances when adopted/updated.*

### **Code of Ordinances**

Within the Code of Ordinances, Hyde County does not have countywide zoning and only adopted zoning for the Ocracoke Development area.

### **Building Code**

Hyde County follows the 2012 North Carolina Uniform Statewide Building Code. The Hyde County Building Code does not include provisions for sound attenuation as it relates to sound transmission from external noise sources to internal building spaces.

## **Tyrrell County**

### **Comprehensive Plan**

Tyrrell County has not adopted a Comprehensive Plan.

### CAMA Core Land Use Plan

Adopted by Tyrrell County in 2009, the county's Land Use Plan vision is to maintain and protect the environmental resources and the agriculture and rural character of the county. The land use plan does not reference the DCR. A review of the Land Use Plan has identified the following concerns related to military compatibility:

- The plan states that Tyrrell County does not support military restricted airspace and/or continued expansion of the areas.
- The plan does not address the military presence from a land use compatibility perspective.

### County Code – Zoning Ordinance

Tyrrell County does not maintain zoning regulations within unincorporated portions of the County. Only the Town of Columbia has established a zoning ordinance to “*promote the health, safety, morals, and general welfare*” of the town. This zoning ordinance does not address land use compatibility with the military overflight.

### Building Code

In addition to the State Building Code, Tyrrell County adopted a Flood Damage Prevention Ordinance in 2003 to better protect the area from future climate change. The Tyrrell County Building Code does not include provisions for sound attenuation as it relates to sound transmission from external noise sources to internal building spaces.

## Washington County

### Comprehensive Plan

Washington County has not adopted a Comprehensive Plan.

### CAMA Land Use Plan

The Washington County CAMA Land Use Plan is currently under State review.

### Zoning Ordinance

The Washington County zoning ordinance was last amended in 2004. A review of the zoning regulations has identified the following concerns related to military compatibility:

- The topics of noise, vibration, and lighting associated with compatibility of military activities are not addressed in the ordinance.
- No height requirements for telecommunication towers or wind energy development are stated within the ordinance.

### Building Code

The Washington County Building Inspections Department provides inspections services to the Towns of Roper, Creswell, and Plymouth. Washington County follows the 2012 North Carolina Uniform Statewide Building Code which does not address sound transmission from external noise sources to internal building spaces.

## Wayne County

### Comprehensive Plan

Wayne County's Comprehensive Plan states that county officials coordinate with Seymour Johnson AFB on proposed developments. The comprehensive plan also considers the installations long range plans and provides guidance for supporting infrastructure, and buffer areas needed in order to fully support the future of Seymour Johnson AFB. The following policies and action items directly support Seymour Johnson AFB and its operations:

*Policy 1.5: County-wide mass transit services may be supported through the encouragement of compact, TRANSIT-SENSITIVE DEVELOPMENT PATTERNS. Higher intensity development may be encouraged along designated transit corridors, between municipalities and employment centers, Seymour Johnson Air Force Base and other population centers.*



*Policy 2.6: SEYMOUR JOHNSON AIR FORCE BASE shall be recognized as a critical component of the local economy. County actions shall be consistent with preserving, protecting and promoting the mission of this pivotal major industry.*

*Action 12.5: Continue the progress made in recent years with regard to improved planning coordination between Seymour Johnson Air Force Base and Wayne County. Continue to welcome representatives of the Air Force Base on County committees. Continue to support the Base Community Council in its efforts to work cooperatively with the City and County on such things as housing, emergency services, communication, transportation, education, and other joint concerns.*

*Action 12.8 Continue the Wayne County Transportation Committee, including the County, Seymour Johnson Air Force Base, plus all municipalities and the NC DOT in its efforts to jointly plan for the immediate and long range transportation needs of the area.*

### **Zoning Ordinance, County Code Appendix A**

Wayne County's Zoning Ordinance was adopted in 1967 and amended through 2009. The county has established an Airport District, Airport Industry District (AI), and an Airport Overlay District (AP) in order to protect development from potential dangers by establishing height regulations and limiting population density within certain areas within proximity to an air base and/or airport. Height limits within the Airport Approach Zone District are required to meet the latest federal and state regulations regarding height in airport approach areas. Within the Airport Overlay District, the area is divided into seven sub-districts in order to ensure existing and future development is compatible with noise generated from aircraft operations.

The following compatibility concerns are based on a review of the zoning regulations:

- Mobile homes are permitted uses within the AP district.
- Maximum heights within certain zoning districts may conflict with navigable airspace associated with aviation operations.
- The zoning ordinance does not provide sound attenuation standards to further protect the community from military operational noise.
- No height requirements for telecommunication towers or wind energy development are stated within the ordinance.

### **Building Code**

Wayne County follows the 2012 North Carolina Uniform Statewide Building Code. The Wayne County Building Code does not include provisions for sound attenuation as it relates to sound transmission from external noise sources to internal building spaces.

## **City of Goldsboro**

### **Comprehensive Plan**

Adopted in 2013, the City of Goldsboro developed a 20-year Comprehensive Plan that guides development within the city's boundaries and its extraterritorial jurisdiction (ETJ). The Plan recognizes the need to support and protect Seymour Johnson AFB and its air operations. The city recognizes the importance of Seymour Johnson AFB and integrating the installation with the community's needs. Furthermore the comprehensive plan states, *"Consideration of sufficient demand/capacity support for the base should be a continuous factor in decision making for both the City and the County."*

Goldsboro's Comprehensive Plan established future land use sectors, including an Accident Potential Zone (APZ) District, Noise District Overlay, AP Airport District, Airport Height Overlay District, and Noise District Overlay which are generally compatible with Seymour Johnson AFB and its operations since they incorporate the installations AICUZ land use recommendations, noise contours and prescribed height limits or structures.

The following goals and policies support Seymour Johnson AFB:

*Goal 3: Vigorously support and preserve Seymour Johnson Air Force Base.*

*1.9 The City of Goldsboro will discourage commercial development which interferes with safe adequate access to Seymour Johnson Air Force Base.*

*1.47 The City and County will consider prohibiting the development of conflicting incompatible land uses in the vicinity of Seymour Johnson AFB.*

Relating to Goal 3, the City of Goldsboro states that the city is responsible for notifying Seymour Johnson AFB Commander and Civil Engineer on proposed rezoning requests. Additionally, the city is to consider all potential impacts with Seymour Johnson AFB before approving a proposed rezone request.

### **Zoning Ordinance, Chapter 5**

The City of Goldsboro Zoning Ordinance recognizes Seymour Johnson AFB under Section 5.2.7 stating:

*No structure shall exceed the applicable height limitations established by the Seymour Johnson Air Force Base "Air Installation Compatibility Use Zone" (AICUZ) Study. The Air Force AICUZ height restrictions are based on those contained in Federal Aviation Administration (FAA) Regulation Part 77, and are documented in the U.S. Department of Defense document "Unified Facility Criteria 3-260-01, Airfield and Heliport Planning and Design" or the applicable height limitations of the Goldsboro-Wayne Municipal Airport Layout Plan Report on file at the City of Goldsboro Planning and Community Development Department.*

The zoning ordinance includes compatible land uses within the AICUZ areas including the CZ, APZ I and II, Noise Zones, and Height and Obstruction criteria for the Overlay Districts. Before any new tower development can be approved, proposed new tower applications are required to be submitted to Seymour Johnson AFB for review.

All major subdivision plats within the City of Goldsboro are approved by the Planning Commission and City Council. Once the application is received in the office, in accordance with House Bill 254, staff prepares a memo that is transmitted to Seymour Johnson AFB for their review and comment. Staff also reviews the submitted subdivision request to ensure that it complies with requirements of the Noise Overlay District.

### **Unified Development Ordinance**

Under Section 5.2.7, Special Seymour Johnson Air Force Base and Goldsboro-Wayne Municipal Airport Height Regulations and Limitations, no structure shall exceed the applicable height limitations established by the Seymour Johnson Air Force Base 2011 AICUZ Report.

The Noise Overlay District provides for compatible development of land in areas subject to increased aircraft noise exposure and accident potential due to aircraft operations surrounding Seymour Johnson AFB. Notification is required on plats and site plans to all present and future owners that property within this district is exposed to aircraft noise potentially in excess of 65 DNL. The district is divided into four sub-districts corresponding to the 65-69 DNL, 70- 74 DNL, 75-79 DNL, 80-84 DNL and 85+ DNL noise contours. A land use compatibility table, following the 2011 AICUZ, provides uses that are permitted and not permitted in the Noise Overlay District.

The Accident Potential Zone (APZ) District limits development in areas that have significant potential for aircraft mishaps. The APZ is divided into three sub districts corresponding to the clear zone, APZ-I and APZ-II as defined by the 2011 AICUZ. The provisions of the APZ apply to any application for a building permit, certificate of occupancy, zoning, special use permit, conditional use permit, zoning compliance certificate, vested rights

certificate, and subdivision/ site plan approval. A land use compatibility table, following the 2011 AICUZ, provides uses that are permitted and not permitted in the APZ.

### **Building Code**

The City of Goldsboro follows the 2012 North Carolina Uniform Statewide Building Code. The City of Goldsboro Building Code does not include provisions for sound attenuation as it relates to sound transmission from external noise sources to internal building spaces. Noise level reductions where applicable are shown in Section 5.9.8 of the City's Unified Development Ordinance. Any requirement pertaining to noise attenuation is processed by the Planning Department and any findings pertaining to a reduction in noise are then forwarded to the Inspections Department.

## **City of Washington**

### **Comprehensive Plan**

The City of Washington's Draft 2030 Comprehensive Plan, was completed in 2013 and identifies 10 theme areas. The Plan does not acknowledge military overflight from Seymour Johnson AFB or DCR.

### **Zoning Ordinance**

The city zoning ordinance recognizes appropriate uses of land for areas within its jurisdiction and ETJ areas. Although Seymour Johnson AFB and military operations are not specifically identified within the County's regulations, the zoning ordinance established an Airport District (AP), in order to ensure compatible operations with numerous airport facilities and agricultural land uses that surround the facilities. Though only a small portion of the northeast part of the city is within a MTR, approximately 30 percent of operations at the local Washington-Warren Field Airport (as of 2014) are military. These operations are not conducted by Seymour Johnson AFB.

### **Building Code**

City of Washington follows the 2012 and 2015 North Carolina Uniform Statewide Building Code. The City of Washington Building Code does not include provisions for sound attenuation as it relates to sound transmission from external noise sources to internal building spaces.



# Compatibility Assessment

5

## 5.1 Compatibility Assessment

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

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

## 5.2 Methodology and Evaluation

The methodology for the Seymour Johnson Air Force Base (AFB) and Dare County Range (DCR) 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 Study Area. Other factors and associated issues were analyzed based on available information and similarity with other community JLUS experiences around the country.

The selection and inclusion of strategies is directly and indirectly affected by the evaluation of issues. Issues were prioritized into four different categories with an associated time frame and presented to the PC and TAC for review. Since the PC and TAC accepted the priorities as is, the priorities will be used to determine the timeframe for initiating strategies by the primary and partner agencies.

Of the 25 compatibility factors considered, 11 were determined to be inapplicable to this JLUS:

- Air Quality
- Anti-Terrorism/Force Protection
- Cultural Resources
- Frequency Spectrum Capacity
- Frequency Spectrum Impedance / Interference



- Infrastructure Extensions
- Light and Glare
- Marine Environments
- Public Trespassing
- Scarce Natural Resources
- Water Quality/Quantity

### Biological Resources (BIO)

Biological resources include federal and state listed species (threatened and endangered) 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:

- **Protected, Threatened or Endangered Species near the Dare County Range and the National Alligator Wildlife Refuge.** Concern for the protection of the red-cockaded woodpecker (endangered), American alligator, black bear and red wolves proximate to the Dare County Range from potential impacts of overflight.
- **Waterfowl Management in Areas Surrounding Dare County Range.** Waterfowl could be impacted by military overflight particularly during breeding and migration seasons, working against investments that have been made to protect these species. Need to protect local and migratory waterfowl in areas surrounding the Dare County Range.

### Climate Adaptation (CA)

Climate adaptation is attempting to mitigate the potential impacts caused by climate change, which is the gradual shift of global weather patterns and temperature resulting from natural factors and human activities (e.g., burning of fossil fuels) that produce long-term impacts on atmospheric conditions. The effects of climate change vary and may include fluctuations

in sea levels, alterations of ecosystems, variations in weather patterns, and natural resource availability issues. The results of climate change, i.e., ozone depletion and inefficiencies in land use, can present operational and planning challenges for the military and communities as resources are depleted and environments altered. The following Climate Adaption issues were identified:

- **Long-Term Sea Level Rise Impact at Dare County Range.** Sea level rise potential may impact long-term operational capability of current facilities and weapon systems / platforms at the Dare County Range if strategic land use planning strategies and / or weapon / target system planning strategies are not implemented

### Communication / Coordination (COM)

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 and regional planning efforts. The following Communication / Coordination issues were identified:

- **Communication with Northeast North Carolina Counties.** Seymour Johnson AFB / Dare County Range community relations outreach does not extend to northeast North Carolina counties, cities and towns which affect regional support for the military. Communities in northeast North Carolina have limited understanding of the differing branches of the Armed Forces that impact them and a lack of knowledge about the Dare County Range location, use, and association with Seymour Johnson AFB.
- **Engagement with Northeast North Carolina Counties.** Need for Seymour Johnson AFB / Dare County Range engagement with northeast North Carolina counties, cities and towns to improve

perception that the military acknowledges the impacts experienced in these areas from overflight and to build regional support for Seymour Johnson AFB / Dare County Range.

- **Coordination with Northeast North Carolina Counties.** Lack of coordination between Seymour Johnson AFB / Dare County Range and northeast North Carolina counties, cities and towns on planning and land use issues leading to lack of information sharing and coordinated evaluation of reciprocal development impacts.
- **Communication / Coordination between Wayne County, City of Goldsboro and Seymour Johnson AFB regarding Development Review.** While Seymour Johnson AFB and jurisdictions may engage in informal verbal and electronic communications, there is no formalized reciprocal coordination that delineates points of contact, types of projects, review timeframes, roles and responsibilities, or acknowledgement of Session Law 2014-79 between Seymour Johnson AFB and the City of Goldsboro and Wayne County for review of development plans.
- **Communication / Coordination between Northeast North Carolina Counties and Seymour Johnson AFB regarding Development Review.** There is no formalized reciprocal consultation between Seymour Johnson AFB / Dare County Range and northeast North Carolina counties, cities, and towns for review of development plans.
- **Mutual Aid for Fire Management / EMS between Dare County Range and Surrounding Counties.** Need for formal Memorandum of Understanding to provide mutual aid for Fire Management / Emergency Medical Services with Dare County Range due to the remoteness of the Range location and rural nature of surrounding counties.

- **Awareness of Communication Procedures for Contacting Seymour Johnson / Dare County Range Regarding Complaints and / or Concerns.** Local jurisdictions and the public do not know who to contact at Seymour Johnson AFB / Dare County Range regarding concerns, complaints or coordination.
- **Coordination with the Military on Cell Tower Siting.** Although some counties currently request FAA Obstruction Evaluations for proposed cell towers, the military is only notified if a proposed tower meets the minimum FAA criteria.
- **Coordination of Flight Activities between Seymour Johnson AFB / Dare County Range and Other Military and Government Agencies over Albemarle Sound.** Need for coordination of flight activities between Seymour Johnson AFB / Dare County Range and other military and government agencies over Albemarle Sound.
- **Lack of Information to Public on Water Ranges.** Because of competition for use of the water among recreational boaters and fishermen, sea spaces need to be cleared where restricted areas, military operating areas, and military training routes begin at the surface when active training and operations are occurring throughout the Study Area.

### Dust / Smoke / Steam (DSS)

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:

- **Prescribed Burns from Agricultural Farming.** Some farmers in Hyde and Tyrrell Counties use fire to clear wheat straw prior to replanting. Prescribed burns can impact flight training activities and safe travel on local roads.
- **Wildfire Impacts on Dare County Range Operations.** Wildfires have the potential to impact flight patterns and training activities at the Dare County Range.

## Energy Development (ED)

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

- **Potential Wind Farm Impacts on Seymour Johnson AFB and Dare County Range Training Operations.** There is a need for a formal, coordinated site selection process and standard criteria for wind energy development.

## Housing Availability (HA)

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

- **Lack of Local Short-Term Accommodation for Training Reservists.** The lack of sufficient quantities of short-term lodging has resulted in military workforce commuting to Seymour Johnson AFB from as far away as Raleigh, which can require a minimum commute time of over an hour each way.

- **Lack of Various Housing Opportunity Off-Base.** Local jurisdictions' growth policies do not address military workforce housing needs.

## Land / Air / Sea Space Competition (LAS)

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:

- **Potential for Increased use of Military Training Routes.** Concern that increased use of Military Training Routes could exacerbate impacts on areas of overflight in northeast North Carolina.
- **Potential for Increased use of Dare County Range.** Concern that increased use along with evolving and new missions at Dare County Range could introduce additional impacts on areas of overflight in northeast North Carolina.
- **Potential Loss of Diversity Regarding Low-Level Flight Routes.** Concern that losses from any reduced capacity or changes in low-level flight routes could impact flight training capability for Seymour Johnson AFB and training mission at Dare County Range.
- **Further Introduction of the F-35 Aircraft into the North Carolina Airspace.** Concern that further introduction of F-35 Joint Strike Fighter to training in northeast North Carolina will introduce additional impacts to areas of overflight.

- **Restricted General Aviation Use of Northeast North Carolina Airspace due to Restricted Areas, Military Operating Areas and Military Training Routes.** Growth at general aviation airports can be hampered by the complexity of military related Restricted Areas, Military Operating Areas, and Military Training Routes that reduce available airspace and access to local airports.
- **Aerial Crop Spraying Proximate to Dare County Range.** Low-level flight used for the aerial application of crop spraying in Military Training Routes and Restricted Areas near the Dare County Range has the potential to impact military flight training.
- **Recreational Use of Drones.** Recreational drone use has the potential to interfere with military overflight near the Dare County Range and within Military Training Routes.

### Land Use (LU)

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, lighting. The following Land Use issues were identified:

- **Compatible Land Use in Comprehensive Plans and Zoning.** Need for City of Goldsboro and Wayne County to update Comprehensive Plans and planning documents including zoning to reflect compatible land use recommendations including non-residential intensity (floor area ratio) in the 2011 AICUZ Study and Air Force Instruction 32-7063.

- **Need for Enhanced Transparency on Future Land Use and Zoning Maps.** The City of Goldsboro future land use and zoning maps do not denote the Seymour Johnson AFB airfield safety zones or imaginary surfaces per the 2011 AICUZ Study. The Wayne County future land use and zoning maps do not denote the Seymour Johnson AFB airfield safety zones and noise zones.
- **Need for Enhanced Zoning Regulations specific to Seymour Johnson AFB Airfield Imaginary Surfaces.** Height restrictions for areas surrounding Seymour Johnson AFB are incorporated in City of Goldsboro zoning regulations by reference but there is no explanation of the imaginary surfaces, heights associated with each, or how they are applied. Though the Wayne County Zoning Regulations include imaginary surfaces, there is a reliance on FAA Obstruction Evaluations for determining compliance with height requirements which only address structures greater than 199 feet. This may be insufficient for areas in close proximity to Seymour Johnson AFB.
- **Height Restrictions Impact Economic Development Opportunities.** Economic development opportunities including ecotourism and wind energy development in areas of overflight are challenged due to noise and vibration impacts from low-level military flight.

### Legislative Initiatives (LEG)

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 Initiatives were identified:

- **Coordinating Wind Farm Development with Military.** Need to enhance coordination of wind farm development with Seymour Johnson AFB / Dare County Range.



- **State Engagement on Funding Partnering.** Need for enhanced engagement with congressional stakeholders to preserve partnerships, promote cooperation, and secure funding for the acquisition of land for conservation buffers surrounding Seymour Johnson AFB.
- **Military Compatibility Legislation.** Need for enhanced military compatibility legislation to ensure appropriate response timeframes and applicability to precise geographic areas.

## Noise (NOI)

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 issues were identified:

- **Noise from Overflight in Military Training Route Corridors.** Low-level flight along Military Training Route corridors generates noise that can affect noise sensitive land uses under areas of overflight.
- **Incompatible Development in Seymour Johnson AFB Noise Contours.** Noise from activities at Seymour Johnson AFB has the potential to affect noise sensitive land uses in surrounding communities. Greater intensities in development within Seymour Johnson AFB noise contours have the potential to affect mission-critical training.

- **Noise from Overflight Affects Bird and Waterfowl Population Roosting and Nesting.** Concern that noise from low-level overflight on flight paths to / and from Dare County Range affects local bird and waterfowl population roosting and nesting along coastal areas and at the Mattamuskeet National Wildlife Refuge.
- **Noise During Week of Statewide Spring Testing in Schools.** Concern that noise from low-level overflight has a detrimental impact on statewide Spring student testing in schools.
- **Compliance with Minimum Floor Altitudes in Military Airspace.** Concern that aircraft fly below minimum flight altitudes in Military Training Routes and Restricted Areas which intensifies noise in communities of overflight.
- **Noise Impact on Tourism Development.** Concern regarding noise impacts from low-level overflight on outdoor tourism development in northeast North Carolina communities.

## Roadway Capacity (RC)

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 urban development expands into rural areas, roads once used primarily to provide access for agricultural uses and limited local traffic begin to function as urban major arterial roadways. These once rural roads often become the main transportation corridors for all types of traffic – from residential to commercial trucking – and can assist or impede access to military installations. 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:

- **Insufficient Queuing Area at Main Gate on Berkeley Blvd.** Access to Seymour Johnson AFB during peak periods and reservist weekends causes traffic stacking on public roads. The primary gate located off South Berkeley Blvd. is the most widely used access point but has limited room for vehicle stacking. This lack of space can cause traffic to back up on South Berkeley Blvd. creating a safety hazard.

### Safety (SA)

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, explosive safety zones, and bird / wildlife aircraft strike hazards. 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 DOD has delineated Clear Zones (CZ) and APZ in the vicinity of airfield runways. The APZ is 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:

- **Bird Hazard from Lagoons at end of Seymour Johnson AFB Runway 26.** Lagoons for Goldsboro Waste Water Treatment Plant at end of Seymour Johnson AFB Runway 26 encourage habitats for birds. Bird activity in close proximity to the runway is an aviation safety hazard and increases the potential for bird aircraft strikes.
- **Coordination for Bird/ Wildlife Aircraft Strike Hazard Mitigation Efforts.** Need for coordinated multi-jurisdictional effort to address threats from bird / wildlife aircraft strikes surrounding Seymour Johnson AFB.

- **Incompatible Development Located in Seymour Johnson AFB Safety Zones.** Incompatible uses in the Safety Zones extend into City of Goldsboro and Wayne County creating a safety concern.
- **BASH Concerns over Pocosin Lakes National Wildlife Refuge: Pungo Unit from November through March.** The Pocosin Lakes National Wildlife Refuge: Pungo Unit receives 80 percent of the eastern population of Tundra Swans during the winter transcontinental migration from the Arctic Tundra with a total wintering bird population of over 100,000. Bird activity in close proximity to low-level flight routes is an aviation safety hazard and increases the potential for bird aircraft strikes.

### Vertical Obstructions (VO)

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. The following Vertical Obstructions issues were identified:

- **Incompatible Development Located in the Imaginary Surfaces at Seymour Johnson AFB.** Natural and manmade structures pose a potential safety concern for flight operations within Department of Defense established imaginary surfaces associated with Seymour Johnson AFB Runway 8/26.
- **Height Regulations Surrounding Seymour Johnson AFB.** Need to enhance the City of Goldsboro and Wayne County regulations for heights of structures in imaginary surfaces. Regulations only reference the AICUZ Study or FAA Part 77, but lack clarity on how these provisions are applied.

- **High-Tech Agricultural Equipment.** Many farms are moving towards technologically advanced equipment to improve efficiency of farming which includes the use of aerial applicators (manned aircraft and drones) that could potentially extend into airspace of low-level Military Training Routes.
- **Future Cell Towers.** Additional cell towers are needed to provide coverage in northeast North Carolina jurisdictions which could conflict with military training operational areas.

## Vibration (V)

Vibration is an oscillation or motion that alternates in opposite directions and may occur as a result of an impact, explosion, noise, mechanical operation, or other change in the environment. Vibration may be caused by military and / or civilian activities. The aviation mission at Seymour Johnson does not employ aircraft with flight characteristics that typically cause vibration such as slow flight of rotary-wing aircraft (helicopter), high-speed aircraft that produce supersonic boom events, or flight lower than 500 ft. AGL. However, the other branches of the Armed Forces utilize different aircraft that have differing operating characteristics including rotary-wing aircraft that fly slower and have a greater potential to cause vibration. The following Vibration issues were identified:

- **Vibration Impacts from Low-Level Flight Activity.** Vibration from low-level fixed-wing and rotary-wing aircraft overflight in Restricted Areas, Military Operating Areas and Military Training Routes has the ability to cause physical property damage.



# Implementation Plan

# 6

## 6.1 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, Seymour Johnson 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 Seymour Johnson 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.

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 Seymour Johnson 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-4A) to oversee the execution of the JLUS. Through this committee, local jurisdictions,

Seymour Johnson 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.

*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.*



## 6.2 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:

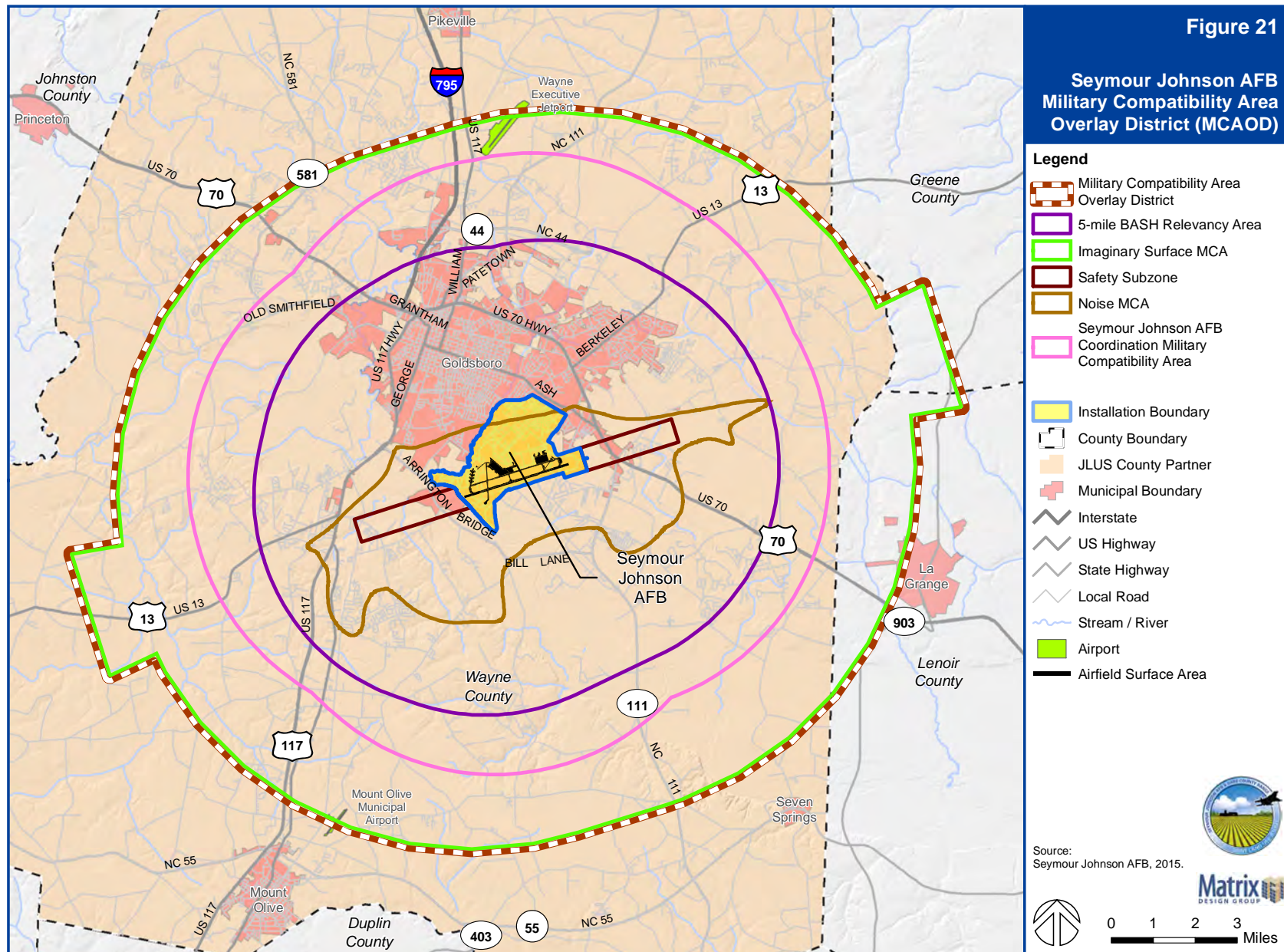
- Recommended strategies must not result in a taking of property value as defined by state law.
- In some cases, the recommended strategies can only be implemented with new enabling legislation.
- In order to minimize regulation, many of the strategies are only recommended within the certain geographic 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.

## 6.3 Military Compatibility and Awareness Areas

In compatibility planning, the terms “Military Compatibility Area” (MCA) and Military Awareness Area (MAA) are used to formally designate geographic areas where military operations may impact local communities, and conversely, where local activities may affect the military’s ability to carry out its mission. The MCA and MAA are designated to accomplish the following:

- 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.
- 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 notification of development to the military.

The Military Compatibility Area Overlay District (MCAOD) is a zoning technique that ensures the JLUS strategies are applied to the appropriate areas, and that locations deemed not subject to a specific compatibility issue are not adversely impacted by regulations or policies inappropriate for their location or circumstance. The MCAOD encompasses all the MCAs and its geographic boundary is defined by the largest MCA boundary. The MCAOD should be used by the City of Goldsboro and Wayne County to address ways to prevent or mitigate compatibility issues. For the purpose of this JLUS Implementation Plan, there is one MCAOD for the Seymour Johnson AFB Study Area depicted on Figure 21.



Whereas the MCAOD includes regulatory and policy strategies as part of the JLUS implementation, the Military Influence Area (MIA) is a planning technique that ensures JLUS strategies for coordination and awareness are applied to the appropriate areas and that locations deemed not subject to a specific compatibility issue are not adversely impacted by strategies inappropriate for their location or circumstance. The MIA encompasses all the MAAs and its geographic boundary is defined by the largest MAA boundary. The MIA should be used by the JLUS partners within the DCR JLUS Study Area to address ways to prevent or mitigate compatibility issues. For the purpose of this JLUS Implementation Plan, there is one MIA for the DCR Study Area depicted on Figure 22.

### **Seymour Johnson AFB MCAs**

The Seymour Johnson AFB MCAOD comprises five MCAs:

- Coordination MCA
- Noise MCA
- Safety MCA
- Imaginary Surfaces MCA
- Bird/ Wildlife Air Strike Hazard MCA

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 discussed in the following sections and are organized by facility.

#### **Coordination Military Compatibility Area (Figure 23)**

The Coordination MCA is designed to capture lands adjacent to Seymour Johnson AFB and is intended to foster cooperation, communication, and awareness to keep county and city leadership and property owners informed of the operations that may impact their quality of life and the leadership at Seymour Johnson AFB apprised of community actions that may impact military operations. The Coordination MCA includes all land within five miles of the boundary of Seymour Johnson AFB.

#### **Noise Military Compatibility Area (Figure 24)**

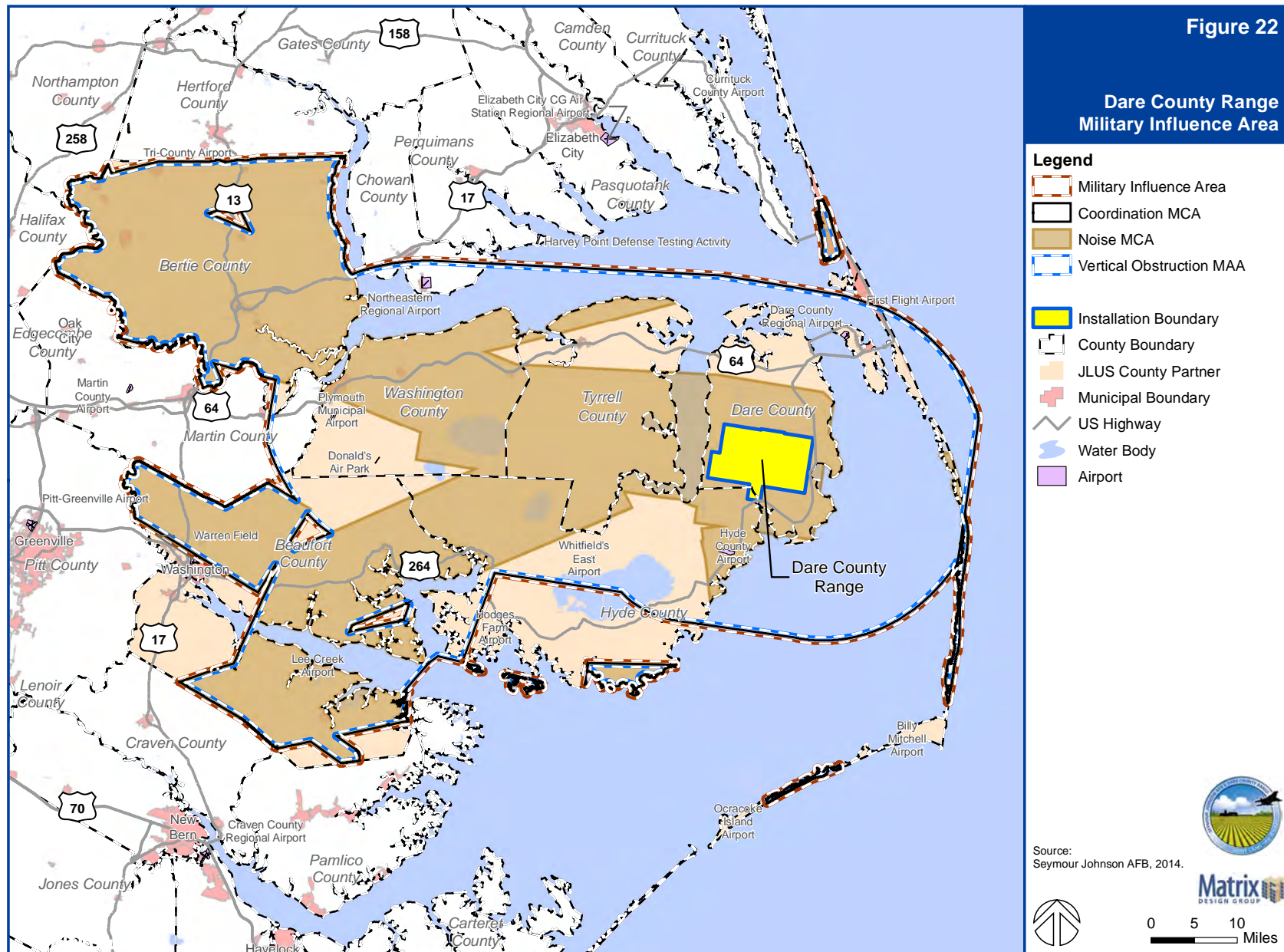
Noise is often a concern to the public surrounding military installations with flying missions. The Noise MCA includes all land located off-installation within Seymour Johnson AFB noise contours greater than 65 decibels (dB) day-night sound level (DNL) associated with military aircraft activities. Residential 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.

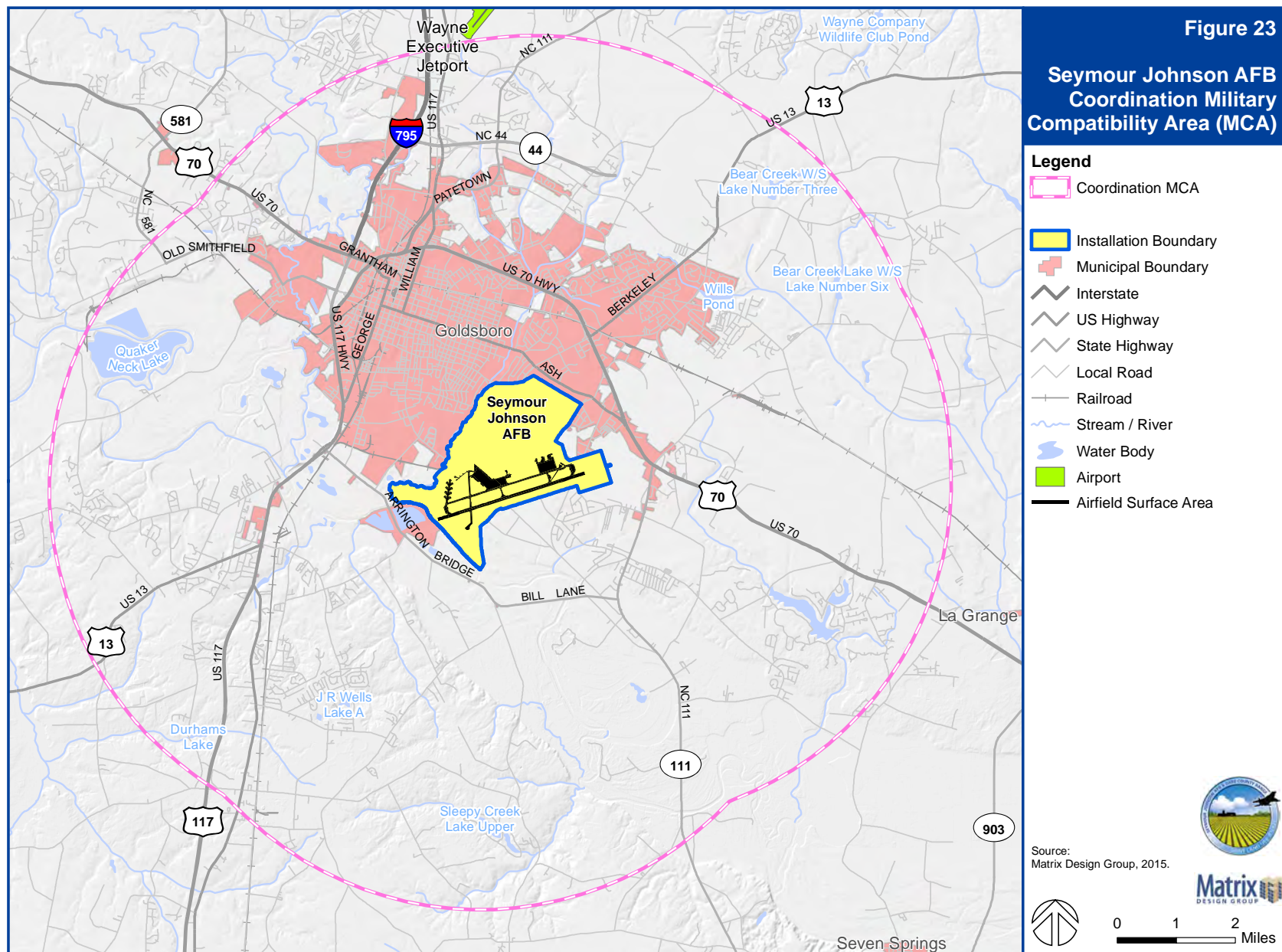
#### **Safety Military Compatibility Area (Figure 25)**

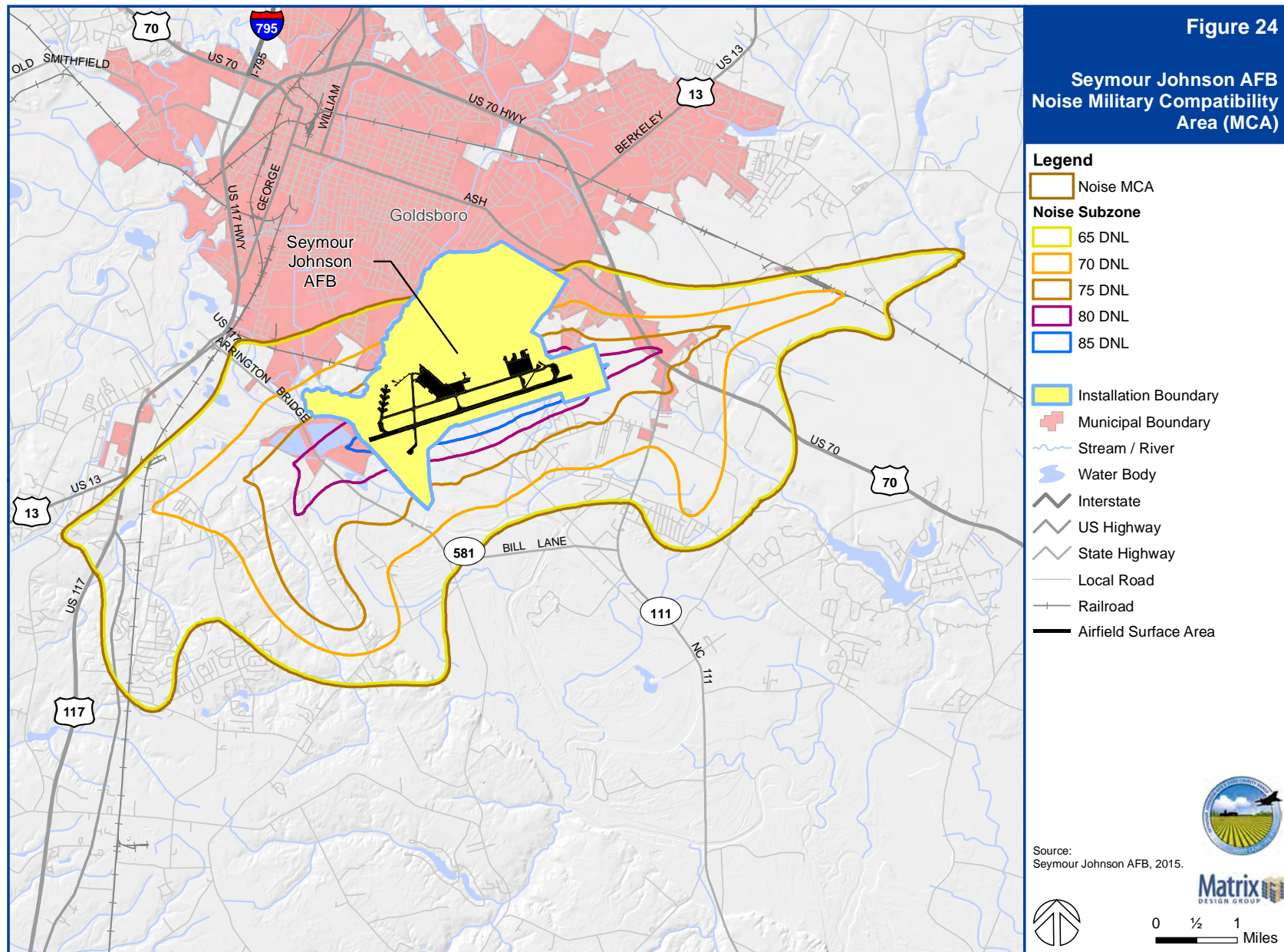
The proposed Safety MCA would regulate compatible land use types and densities / intensities within the Clear Zones (CZs) and Accident Potential Zones (APZs) I and II of Seymour Johnson AFB's runway. Each of these would be a subzone of the Safety MCA. The current location of each safety



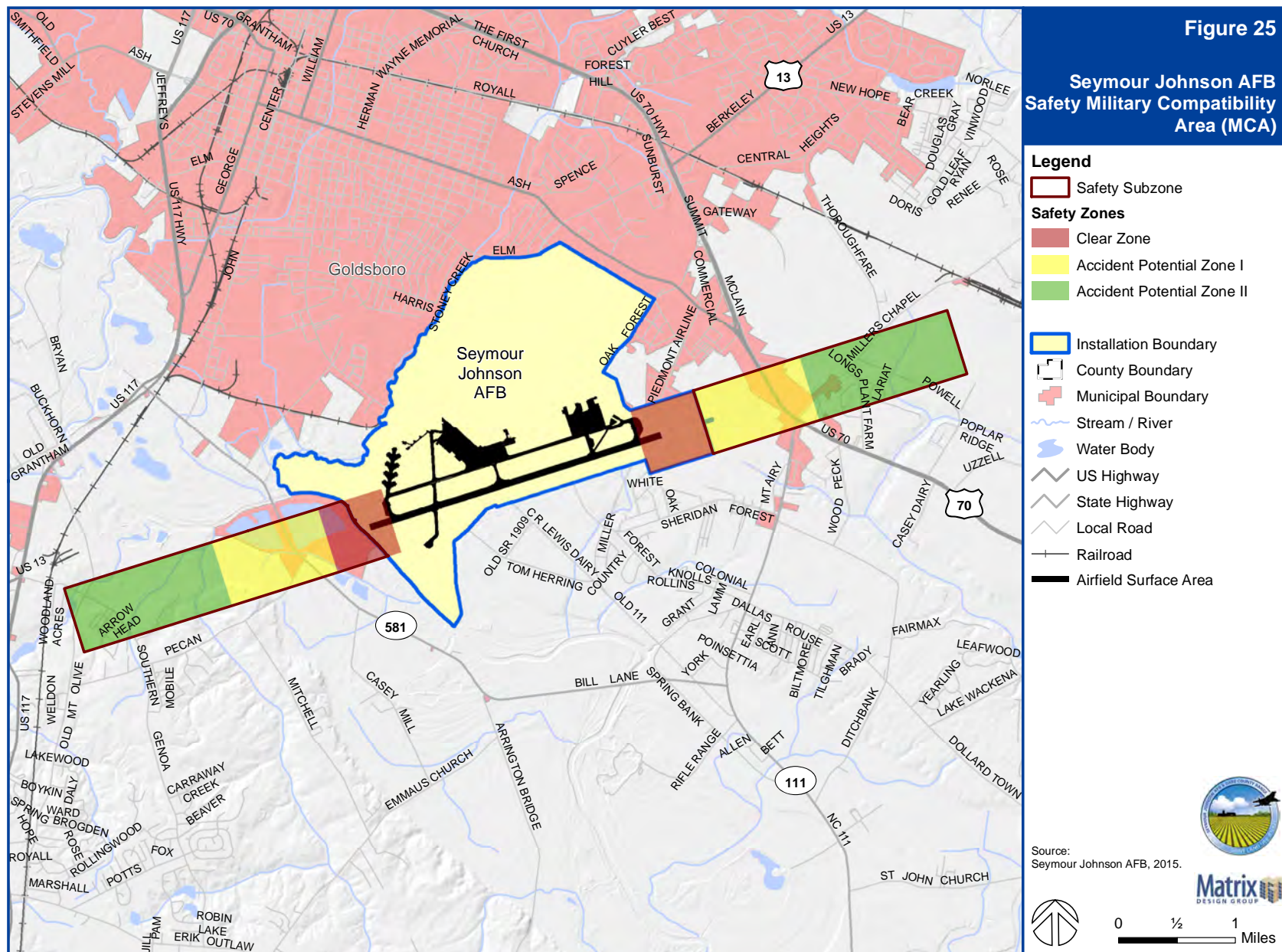












subzone is based on the airfield layout and air operations identified in Seymour Johnson AFB's AICUZ Report. The boundaries of each subzone may need to be amended when the AICUZ study is updated.

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.

### **Imaginary Surfaces Military Compatibility Area (Figure 26)**

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-dimensional 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, Seymour Johnson AFB Operations in the Background Report.

### **BASH Military Compatibility Area (Figure 27)**

The proposed Bird / Wildlife Aircraft Strike Hazard (BASH) MCA extends from the airport operational area at Seymour Johnson 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.

### **Dare County Range MAAs**

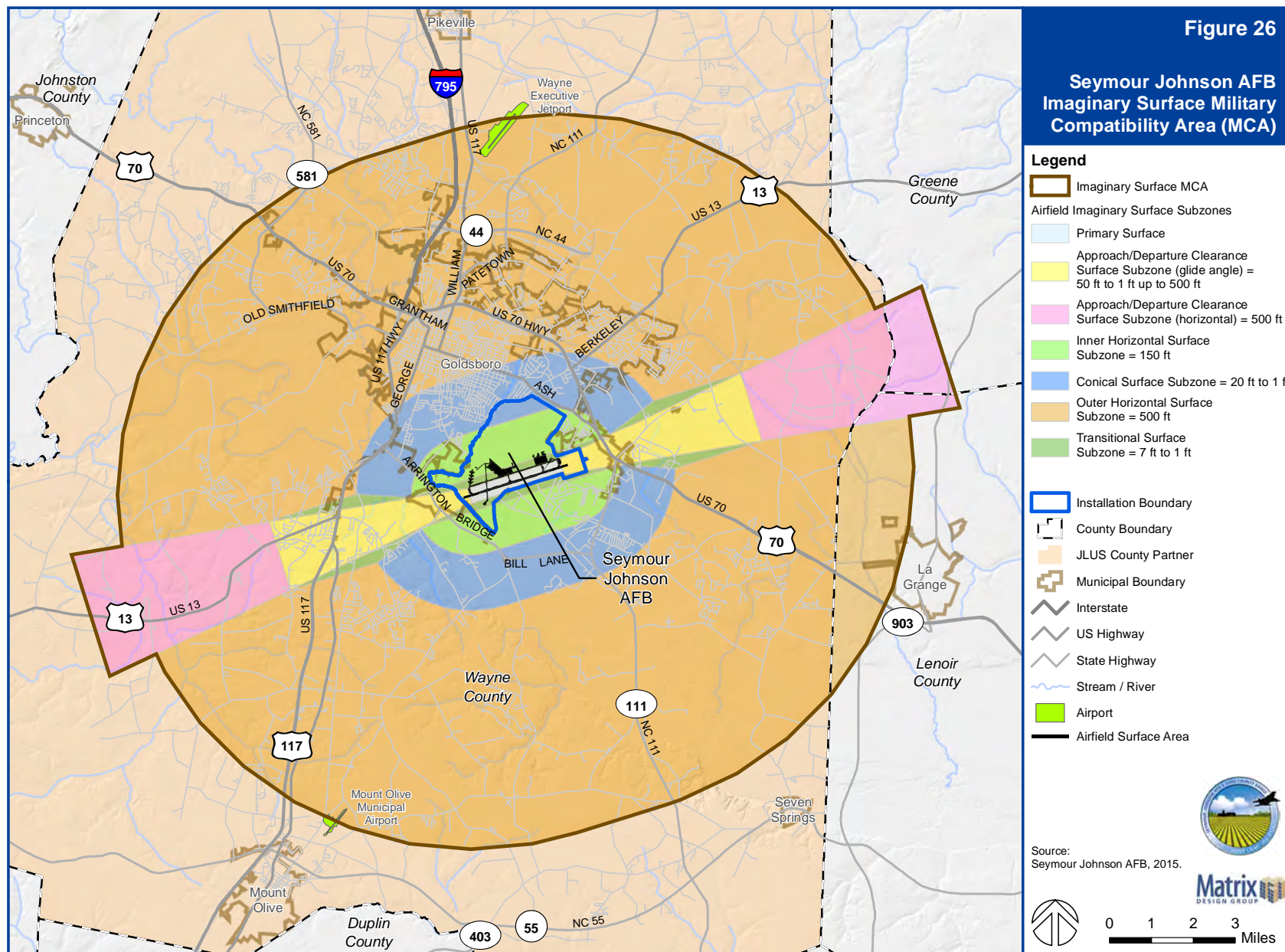
The DCR MIA comprises three MAAs:

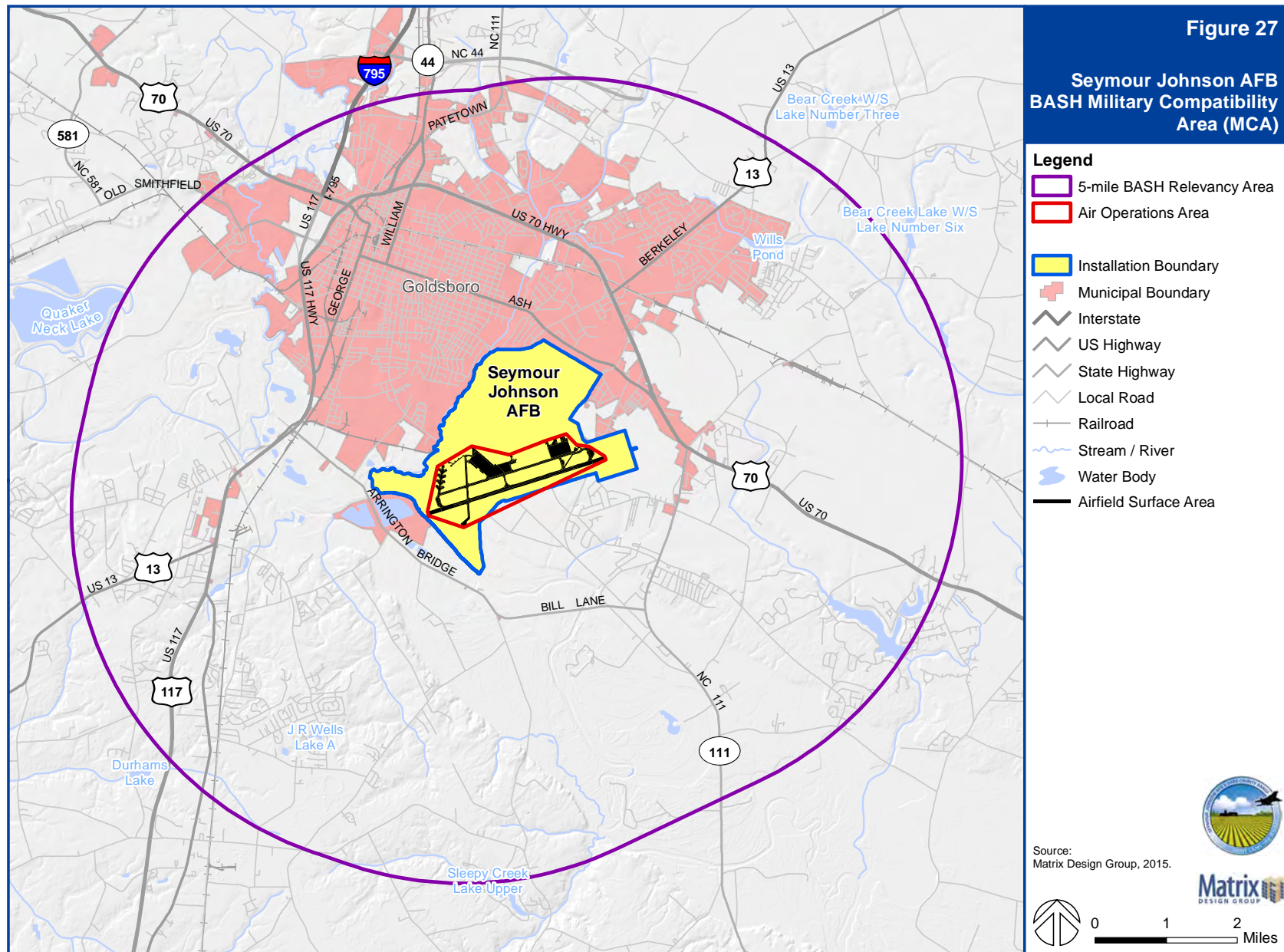
- Coordination MAA
- Noise MAA
- Vertical Obstruction MAA

### **Coordination Military Awareness Area (Figure 28)**

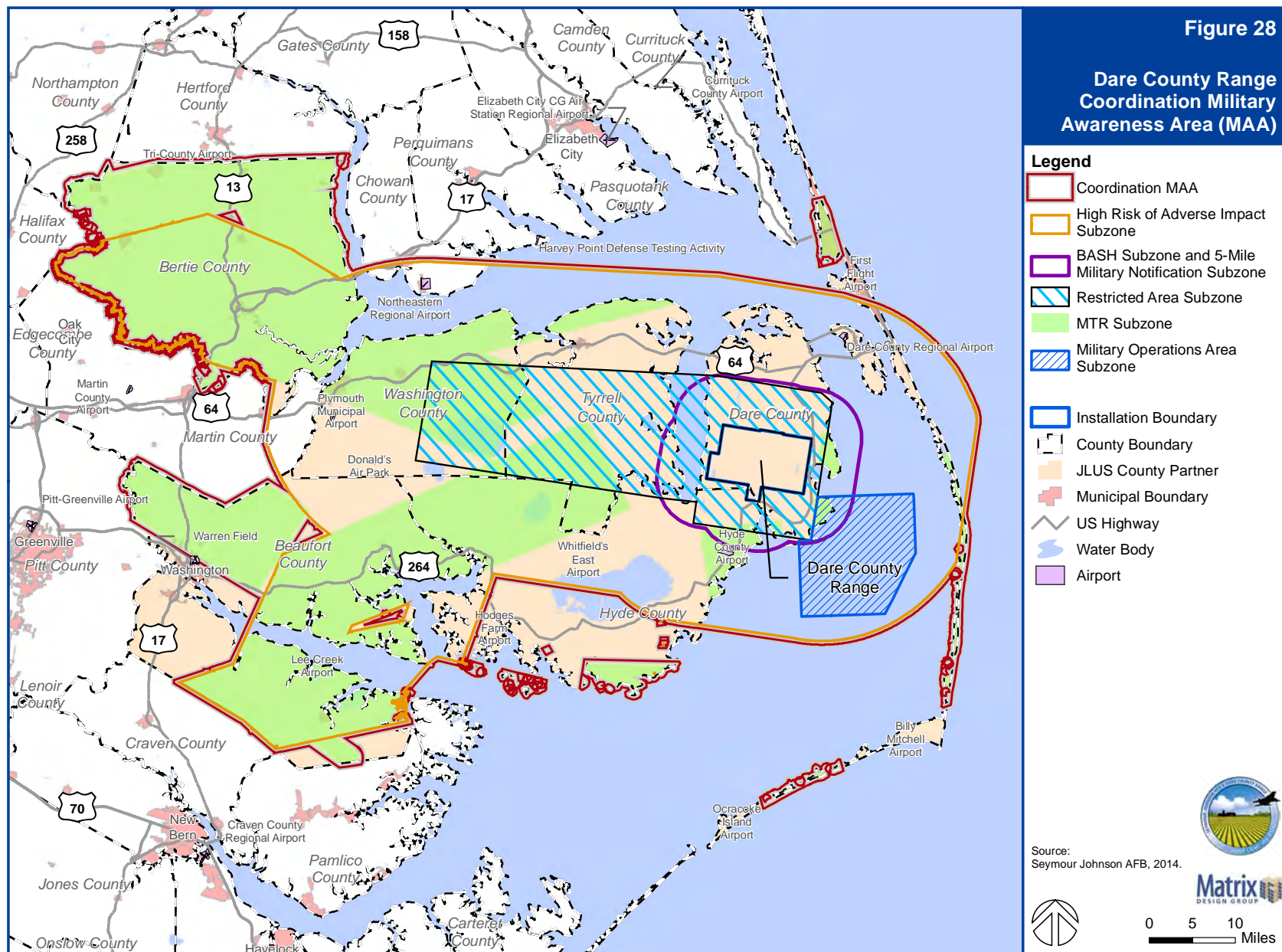
The DCR Coordination MAA is designed to address land adjacent to Range, along with the associated military low-level flight operations in the northeast North Carolina JLUS Study Area. It is intended to foster cooperation, communication, and awareness to keep county and city leadership and property owners informed of the operations that may impact their quality of life and the leadership at Seymour Johnson AFB and the Dare County Range apprised of community actions that may impact military operations. The DCR Coordination MAA is a composite of several subzones, each adding a geographic component to the MAA:











- High Risk of Adverse Impact Subzone, where structures, particularly related to energy development, can interfere with pilot training missions.
- BASH Subzone, where wildlife attractants can pose a risk to low-level aircraft overflight.
- 5-Mile Military Notification Subzone, where notification of planning activities to the military is required per state statutes.
- Restricted Area Subzone, MTR Subzone, and Military Operations Subzone, designated areas where structures can interfere with low-level aircraft overflight.

This area, illustrated in Figure 28, covers the majority of the northeastern NC JLUS Study Area counties.

### **DCR Noise Military Awareness Area (Figure 29)**

The Dare County Range Noise MAA includes all land located off-installation within the Dare County Range noise contours greater than 65 decibels (dB) day-night sound level (DNL) associated with military aircraft activities and areas subject to low-level overflight within Military Training Routes, Restricted Areas and Military Operating Areas throughout northeast North Carolina. Strategies within the Noise MAA are intended to minimize community impacts where possible, and increase public awareness of military airspace, flight operations and communication procedures with Seymour Johnson AFB and the Dare County Range. The DCR Noise MAA is a composite of several subzones, each adding a geographic component to the MAA:

- 65 dB Noise Contour, where noise has been modeled and quantified surrounding the DCR.
- Restricted Area Subzone, designated areas where low-level overflight can generate audible noise on the ground.

- MTR Subzone, designated training routes where low-level overflight can generate audible noise on the ground.

This area, illustrated in Figure 29, covers large portions of the northeastern NC JLUS Study Area counties and may not be contiguous.

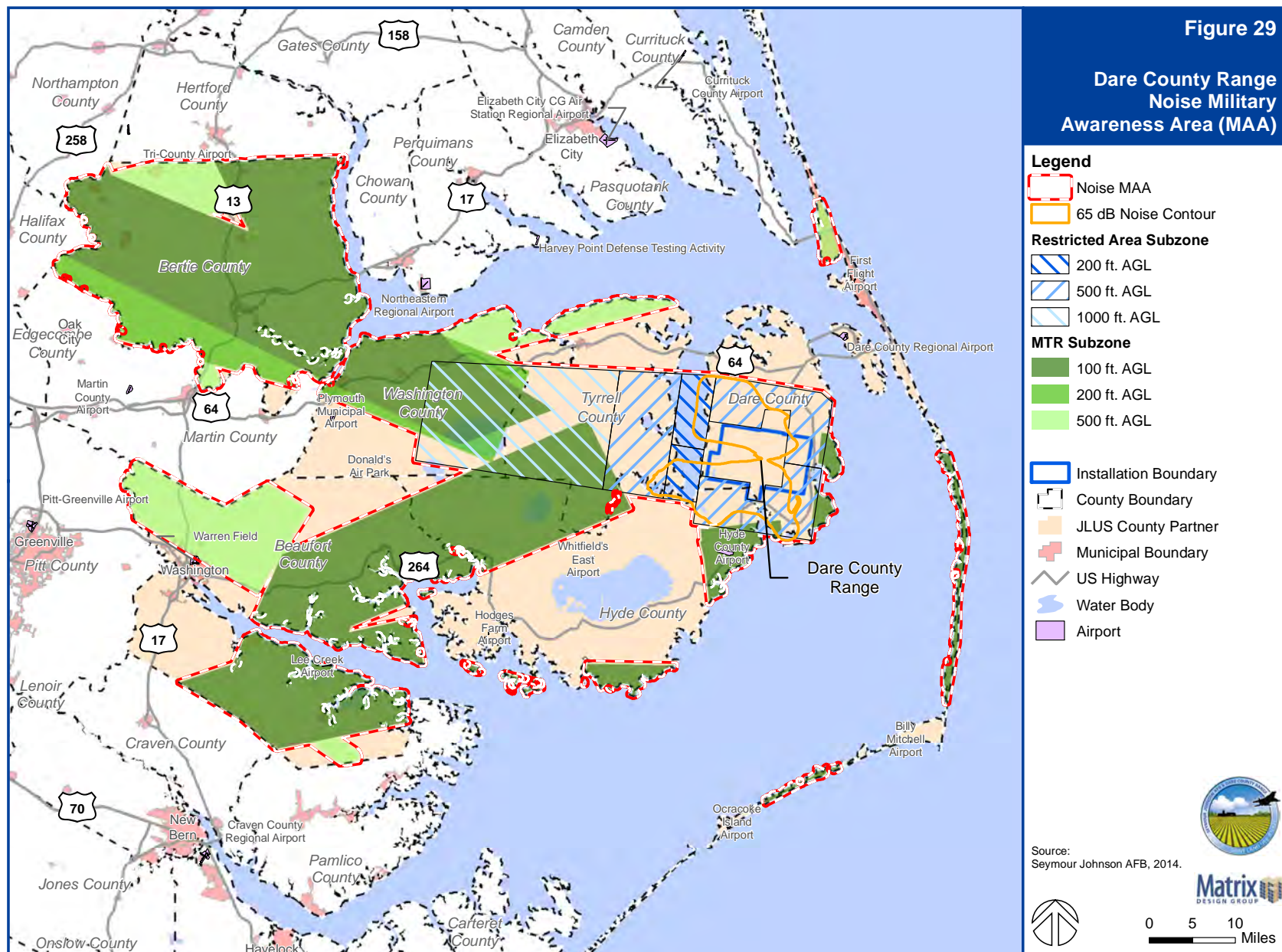
### **DCR Vertical Obstruction Military Awareness Area (Figure 30)**

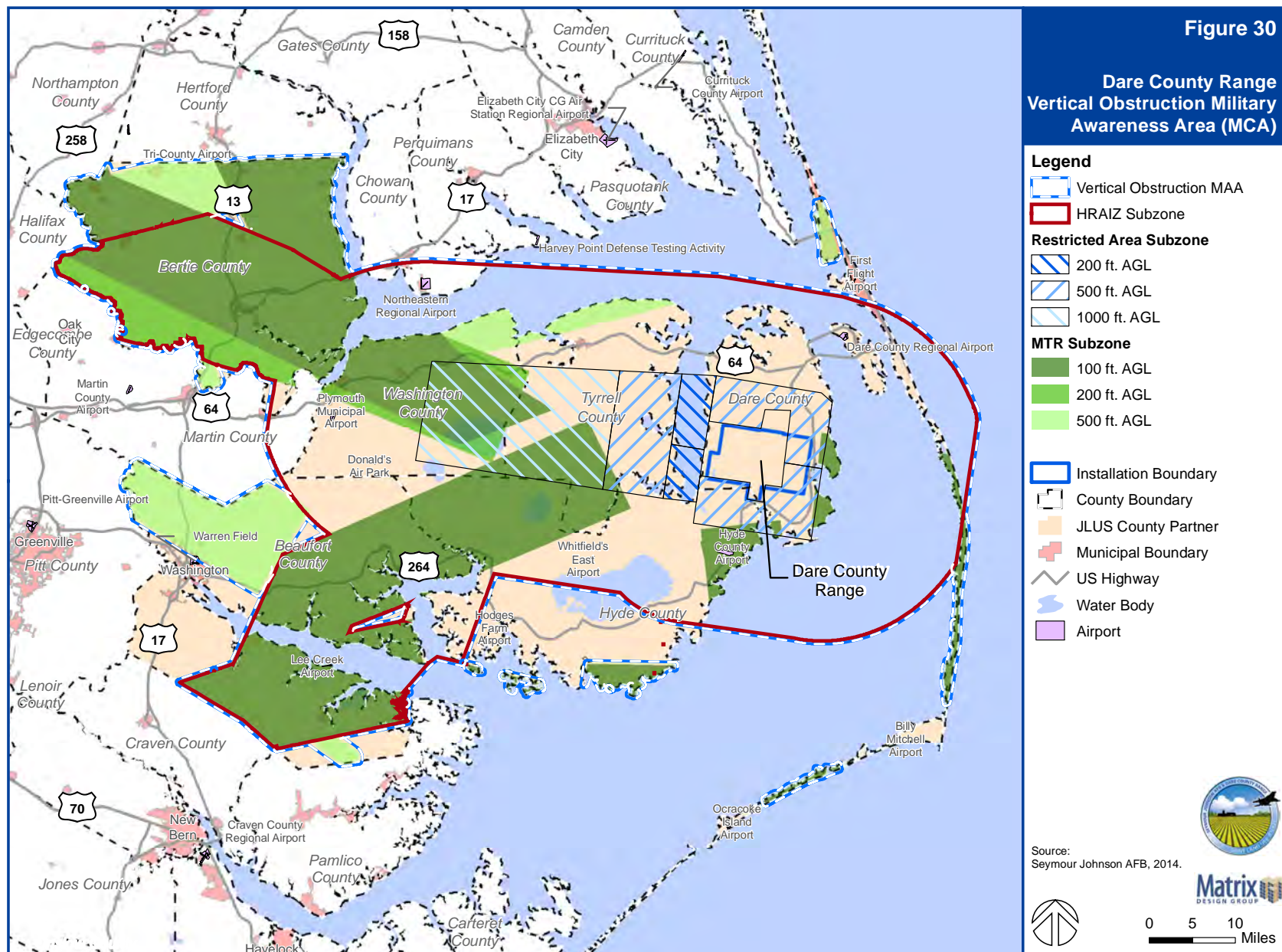
The Dare County Range Vertical Obstruction MAA serves to protect areas for military operations surrounding the Dare County Range and throughout northeast North Carolina. This MAA includes areas of low-level aircraft overflight and the Us Air Force's High Risk of Adverse Impact Zone (HRAIZ) where there is a high likelihood of impact to mission requirements by renewable energy technology. Structures within these areas, depending on vertical height, proximity to the Dare County Range, siting, and electromagnetic sensitivity, can restrict navigable airspace and create obstructions resulting in signal transmission interference for radio frequency line of sight requirements. Within this MAA, strategies address coordination procedures to avoid the creation of vertical obstructions to the military mission. The DCR Vertical Obstruction MAA is a composite of several subzones, each adding a geographic component to the MAA:

- HRAIZ Subzone, where structures, particularly related to energy development, can interfere with pilot training missions.
- Restricted Area Subzone, designated areas where low-level overflight can generate audible noise on the ground.
- MTR Subzone, designated training routes where low-level overflight can generate audible noise on the ground.

This area, illustrated in Figure 30, covers the majority of the northeastern NC JLUS Study Area counties.









## 6.4 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:

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

The strategies are presented in a table format in Table 2, providing the strategy and information on when and how that strategy will be implemented. They are arranged by 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 31 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.).

**Geographic Area.** This column indicates the geographic area applicable to the strategy as it relates to the Seymour Johnson AFB and DCR JLUS Study Areas. Geographic areas consist of the following:

- Seymour Johnson AFB MCAOD – Military Compatibility Area Overlay District (a composite of all MCAs for the Seymour Johnson AFB JLUS Study Area)
- Seymour Johnson AFB MCA – Military Compatibility Area (Coordination, Noise, Safety, BASH or Imaginary Surface)
- DCR MIA – Military Influence Area (a composite of all MAAs for the DCR JLUS Study Area)
- DCR MAA – Military Awareness Area (Coordination, Noise, or Vertical Obstruction)

**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 2017 / 2018 (within year of JLUS completion)
Mid-Term	Strategy proposed to be initiated in 2019 / 2020 (within 1-2 years of JLUS completion)
Long-Term	Strategy proposed to be initiated in 2021/ 2023 (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 square is shown under their name. This square is one of two symbols that represent their role. A solid square (■) designates that the entity identified has a primary role in implementing the strategy. A solid square in the “Other” column indicates an entity listed under the strategy description that has a primary role. In cases where one primary partner has a leading role, this is also indicated under the strategy description. A hollow square (□) designates that the entity plays a key supporting role, but is not directly responsible for implementation. A hollow square in the “Other” column indicates an entity listed under the strategy description with a supporting role. The responsible parties are identified by their name in the heading at the top of each page.



Figure 31. How to Read JLUS Strategies

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
<b>ENERGY DEVELOPMENT (ED)</b>														
ED-1	<b>Potential Wind Farm Impacts on Seymour Johnson AFB and Dare County Range Training Operations</b> There is a need for a formal, coordinated site selection process and standard criteria for wind energy development.													
ED-1E	Seymour Johnson AFB Imaginary Surfaces MCA / DCR Vertical Obstruction MAA	<b>Procedures to Ensure Coordination with DOD Siting Clearinghouse</b> 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 (CAMA Land Use Plans, regional plans, and renewable energy regulations) to incorporate policies and procedures for ensuring coordination of alternative energy development applications with the DOD Siting Clearinghouse.  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.  <i>Other Primary Partners: Developers, DOD Siting Clearinghouse</i>	On-going	■	■		■	■	■	■	■	■	□	■

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

Geographic area where strategy applies.

Strategy. Title and description of the strategy.

Timeframe for which the strategy should be initiated:

- Short-Term
- Mid-Term
- Long-Term
- Ongoing

Responsible Party.  
The primary and partner responsible entities. For example, the (■) denotes a primary entity with a key or lead role in implementation. The (□) denotes a partner entity who will assist the primary entity in implementation.

Table 2. Issues / Strategies by Compatibility Factor (*Alphabetized by Factor*)

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
<b>BIOLOGICAL RESOURCES (BIO)</b>														
BIO-1		<b>Protected, Threatened or Endangered Species near the Dare County Range and the National Alligator River Wildlife Refuge</b> Concern for the protection of the red-cockaded woodpecker (endangered), American alligator, black bear, red wolves, and northern long-eared bat proximate to the Dare County Range from potential impacts of overflight.												
BIO-1A	DCR Coordination MAA	<b>Regional Conservation Committee</b> Create a regional committee to coordinate and align conservation efforts among the federal and state agencies and conservation groups and to oversee the development and implementation of plans and monitoring activities in Strategies BIO-1B, BIO-2A, and BIO-2B. <i>Primary Lead Partner: U.S. Fish and Wildlife Service</i> <i>Other Primary Partners: North Carolina Wildlife Resources Commission, NC Department of Environmental Quality, NC Division of Parks and Recreation, NC Division of Coastal Management, North Carolina Coastal Federation, North Carolina Cooperative Extension, Soil and Water Conservation Districts</i>	Mid-Term					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-1B	DCR Coordination MAA	<b>Develop Regional Comprehensive Management Plan for the Conservation of Sensitive Wildlife Species</b> The North Carolina Wildlife Resources Commission, U.S. Fish and Wildlife Service, Seymour Johnson AFB / Dare County Range Management should partner and collaborate to develop an integrated regional wildlife management plan for the conservation of sensitive species in the region surrounding the Dare County Range to coordinate and optimize conservation efforts and strategies. The outcome of this plan should be incorporated into an update of the installation's	Mid-Term					<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	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<p>Integrated Natural Resources Management Plan (INRMP) as necessary.</p> <p><i>Primary Lead Partner: Regional Conservation Committee (Strategy BIO-1A)</i></p> <p><i>Other Primary Partners: North Carolina Wildlife Resources Commission and U.S. Fish and Wildlife Service</i></p> <p><i>Other Partners: NC Department of Environmental Quality; NC Division of Parks and Recreation, NC Division of Coastal Management, North Carolina Coastal Federation, North Carolina Cooperative Extension, Tyrrell County Administration, Soil and Water Conservation Districts</i></p>												
BIO-1C	DCR Coordination MAA	<p><b>Protect Environmentally-Sensitive Land through the Sentinel Landscapes Program</b></p> <p>Continue to seek partnership opportunities with federal, state and local agencies, conservation organizations, and willing private property owners to acquire real property or conservation easements and to provide incentives to protect working agricultural land with intent of sustaining military readiness and protecting valuable natural resources in eastern North Carolina.</p> <p>This strategy should consider and support the findings and outcomes of Strategy BIO-1A.</p> <p><i>Other Primary Partners: U.S. Department of Agriculture, Natural Resources Conservation Service, U.S. Forest Service, Readiness and Environmental Protection Integration (REPI) Program, U.S. Department of the Interior, U.S. Fish and Wildlife Service, NC Department of Agriculture and Consumer Services, NC Office of the Commissioner, NC Agriculture Development and Farmland Preservation Trust Fund, NC Department of Environmental Quality, NC Division of Soil and Water Conservation, NC Forest Service, NC Soil and Water</i></p>	On-Going				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<i>Conservation Commission, NC Department of Commerce Rural Economic Development Division, NC Department of Military and Veterans Affairs, NC Department of Natural and Cultural Resources, NC Clean Water Management Trust Fund, NC Natural Heritage Program, NC Department of Transportation, NC State University and College of Natural Resources, University Cooperative for Readiness and Conservation, NC Wildlife Resources Commission, Tyrrell County Community Development Corporation, Environmental Lands Program, National Fish and Wildlife Foundation Longleaf, Stewardship Fund, The Coastal Land Trust, The Conservation Fund, The Nature Conservancy, NC Farm Bureau Foundation, NC Foundation for Soil and Water Conservation, NC State Grange, NC Land of Water Environmental Defense Fund, Black Family Land Trust, Conservation Trust for North Carolina</i>												
BIO-1D	DCR Coordination MAA	<b>Continue Monitoring of Delisted Species</b> Continue to support the monitoring of delisted species, such as the American black bear, to ensure the Dare County Range continues to maintain populations in balance with their habitat and the military mission.	On-Going										■	
BIO-1E	DCR Coordination MAA	<b>Educate Public about Relationship Between Military Presence and Wildlife Habitat</b> Continue to increase awareness of Seymour Johnson AFB's existing partnerships with natural resources and conservation groups to identify methods of protection at and surrounding the Dare County Range. <i>Other Primary Partners: US Fish and Wildlife, NC Wildlife Resources Commission, The Coastal Land Trust, The Nature Conservancy</i>	On-Going				□	□	□	□	□		■	■



Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
BIO-2	<b>Waterfowl Management in Areas Surrounding Dare County Range</b> Waterfowl could be impacted by military overflight particularly during breeding and migration seasons, working against investments that have been made to protect these species. Need to protect local and migratory waterfowl in areas surrounding the Dare County Range.													
BIO-2A	DCR Coordination MAA	<b>Continue to Monitor Regional Waterfowl Impacts</b> Seymour Johnson AFB / Dare County Range; NC Department of Environmental Quality; NC Division of Parks and Recreation; and Hyde, Tyrrell and Dare counties, should work with the U.S. Fish and Wildlife, and North Carolina Wildlife Resources Commission to continue to monitor the impacts of military overflight on waterfowl habitat and migration in areas surrounding the Dare County Range and share ongoing findings with JLUS partners. <i>Primary Lead Partner: U.S. Fish and Wildlife</i> <i>Other Primary Partners: North Carolina Wildlife Resources Commission, Regional Conservation Committee (Strategy BIO-1A)</i> <i>Other Partners: NC Department of Environmental Quality, North Carolina Division of Parks and Recreation, NC Division of Coastal Management, North Carolina Coastal Federation, North Carolina Cooperative Extension, Tyrrell County Administration, Soil and Water Conservation Districts</i>	Mid-Term					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-2B	DCR Coordination MAA	<b>Develop and Implement a Regional Waterfowl Management Plan</b> Based on the outcome of the Waterfowl Study results in BIO-2A, develop and implement a Regional Waterfowl Management Plan to promote the health of resident and migratory waterfowl communities including impacts of military overflight on migratory patterns and habitat. <i>Other Primary Partners: U.S. Fish and Wildlife, North Carolina Wildlife Resources</i>	Mid-Term					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<i>Commission, Regional Conservation Committee (Strategy BIO-1A)</i> <i>Other Partners: NC Department of Environmental Quality, North Carolina Division of Parks and Recreation, NC Division of Coastal Management, North Carolina Coastal Federation, North Carolina Cooperative Extension, Tyrrell County Administration, Soil and Water Conservation Districts</i>												
BIO-2C	DCR Coordination MAA	<b>Continue to Pursue Hydrology Restoration Projects for Habitat Value</b> Continue to identify and pursue partnering opportunities for hydrology restoration projects that restore the water regime more closely resembling historic conditions in support of management efforts to provide quality habitat for waterfowl and other migratory birds. <i>Other Primary Partners: U.S. Fish and Wildlife and its National Wildlife Refuges, The Nature Conservancy, Natural Resources Conservation Service, Wetland Reserve Program, NC Clean Water Management Trust Fund, Albemarle Pamlico National Estuary Program, other Trust Funds</i>	On-Going										<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		For another strategy that addresses this issue see Strategy CA-1C.											<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>CLIMATE ADAPTATION (CA)</b>														
CA-1	<b>Long-Term Sea Level Rise Impact at Dare County Range</b> Sea level rise potential may impact long-term operational capability of current facilities and weapon systems / platforms at the Dare County Range if strategic land use planning strategies and / or weapon / target system planning strategies are not implemented													
CA-1A	DCR Coordination	<b>Assess Sea Level Rise Impacts at the Dare County Range</b> Seymour Johnson AFB should work with Dare County, NC Division of Coastal	Long-Term					<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
	MAA	<p>Management, and the National Oceanic and Atmospheric Administration to assess the detailed impacts of sea level rise at the Dare County Range. The report should assess the likely impacts of sea level rise.</p> <p><i>Lead Primary Partner: NC Division of Coastal Management</i></p> <p><i>Other Partners: NC Division of Coastal Management, National Oceanic and Atmospheric Administration, U.S. Fish and Wildlife Service, The Nature Conservancy</i></p>												
CA-1B	DCR Coordination MAA	<p><b>Develop Long-Range Plan for Sea-Level Rise at the Dare County Range</b></p> <p>Develop a long-range strategic plan for mitigating impacts of sea-level rise to preserve future flexibility for weapons delivery events and siting of impact areas, and mission capabilities at the Dare County Range based on analysis developed in Strategy CA-1. Incorporate analysis and quantifiable impacts of projected real property loss on mission capability and capacity and mitigation strategies.</p> <p><i>Primary Partners: US Navy, Air Force Civil Engineer Center</i></p>	Long-Term										<input type="checkbox"/>	<input checked="" type="checkbox"/>
CA-1C	DCR Coordination MAA	<p><b>Continue to Pursue Hydrology Restoration Projects for Living Shorelines</b></p> <p>Continue to identify and pursue partnering opportunities for hydrology restoration projects that reinforce salt marsh ecosystems and protect shorelines from erosion associated with wave energy, storm surges and tides that would otherwise increase shoreline susceptibility to sea level rise and ultimately reduce inland inundation at the Dare County Range. The benefits of these hydrology restoration projects also provide valuable natural habitats for waterfowl and bird populations addressing the issues BIO-1 and BIO-2.</p> <p><i>Primary Partners: U.S. Fish and Wildlife and its National Wildlife Refuges, The</i></p>	On-Going										<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<i>Nature Conservancy, Natural Resources Conservation Service, Wetland Reserve Program, NC Clean Water Management Trust Fund, Albemarle Pamlico National Estuary Program, The Nature Conservancy, other Trust Funds, US Navy</i>												
<b>COORDINATION / COMMUNICATION (COM)</b>														
COM-1	<b>Communication with Northeast North Carolina Jurisdictions</b> Seymour Johnson AFB / Dare County Range community relations outreach does not extend to northeast North Carolina counties, cities and towns which affect regional support for the military. Communities in northeast North Carolina have limited understanding of the differing branches of the Armed Forces that impact them and a lack of knowledge about the Dare County Range location, use, and association with Seymour Johnson AFB.													
COM-1A	DCR Coordination MAA	<b>Develop an Outreach Campaign Plan for Northeast North Carolina</b> Seymour Johnson AFB should develop an Outreach Campaign Plan to identify public outreach goals and action items, metrics and milestones for communication, and responsible representatives from the installation for conducting outreach activities with northeast North Carolina JLUS Study Area jurisdictions. Goals of outreach should focus on regular, on-going, and consistent communications with jurisdiction leadership, local organizations and agencies, and the general public to educate about the Seymour Johnson AFB mission and mission changes that affect the Dare County Range; location and use of the Dare County Range by the Air Force and other users; airspace usage throughout northeast North Carolina including the different airspace types; and initiatives at the Dare County Range to improve the environment and promote health of natural resources. The Communications Plan should emphasize communication of the military strategic value of the Dare County Range, desire of the Air Force to be good neighbors and steward of the land, and identify current issues and concerns. The Outreach Plan should support a range of activities including public	Short-Term		<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	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		appearances, speaking engagements, educational seminars, open houses, media engagements, exhibits, press and news release and publication development/distribution that enhances the Air Forces' strategic value within the community and strengthens the community support base. Consideration should be given to a broad mix of outreach channels including in person, print, video, and digital tools such as websites, social media, and podcasts and support from area jurisdictions and organizations. Include engagement with other military branches as part of the Outreach Plan to identify and integrate shared communication opportunities for broader messaging of all military influences within the northeast North Carolina JLUS Study Area.												
COM-1B	DCR Coordination MAA	<b>Seek Funding for Public Outreach to Northeast North Carolina</b> Seymour Johnson AFB should annually seek funding from federal sources to conduct public outreach activities that focus on public education and advocacy for the missions at the Dare County Range.	Short-Term										■	
COM-1C	DCR Coordination MAA	<b>Enhance Public Notification to Northeast North Carolina</b> When possible and appropriate, enhance notification efforts to the northeast North Carolina JLUS Study Area for events that occur outside or in addition to the normal training schedule. Notifications should be available during all times of the day and include a point of contact in all notifications. Notification techniques should include but not be limited to: <ul style="list-style-type: none"><li>■ Seymour Johnson AFB Facebook / Twitter</li><li>■ Public Service Announcements</li><li>■ Seymour Johnson AFB Strike Eagle news</li></ul>	On-Going		□	□	□	□	□	□	□		■	□

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<ul style="list-style-type: none"> <li>Local newspapers</li> <li>Links from jurisdiction websites to the Seymour Johnson AFB website</li> <li>Group Email Blast to jurisdictions' elected and appointed officials and public safety offices</li> </ul> <p><i>Other Partners: northeast North Carolina newspapers, online press, television and radio stations</i></p>												
COM-1D	DCR Coordination MAA	<p><b>Enhance Seymour Johnson AFB Website for Dare County Range</b></p> <p>Add a dedicated page and link from the homepage on the Seymour Johnson AFB website for the Dare County Range to reinforce the relationship between Seymour Johnson AFB and the Dare County Range. The Dare County Range webpage should contain information about the Range and notifications per Strategy COM-1C.</p>	Short-Term										■	
COM-1E	DCR Coordination MAA	<p><b>Use Mixed Media Methods to Disseminate Information</b></p> <p>Use a mix of media methods to disseminate information about Dare County Range including atypical noise, dust/smoke, or other planned special events and a point of contact for questions or concerns. Employ media releases and distribution to local media outlets, Facebook, Twitter, and other social media outlets as appropriate. Coordinate information circulation with media resources in northeast North Carolina.</p> <p><i>Other Partners: northeast North Carolina newspapers, online press, television and radio stations</i></p>	Short-Term										■	□

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
COM-2	<b>Engagement with Northeast North Carolina Jurisdictions</b> Need for Seymour Johnson AFB / Dare County Range engagement with northeast North Carolina counties, cities and towns to improve perception that the military acknowledges the impacts experienced in these areas from overflight and to build regional support for Seymour Johnson AFB / Dare County Range.													
COM-2A	DCR MIA	<p><b>Participate in a Dare County Range JLUS Implementation Coordination Committee</b></p> <p>Participate in a JLUS Implementation Coordination Committee to maintain efficient and effective coordination among the military and northeast North Carolina JLUS partners, oversee the implementation of JLUS recommendations for the northeast North Carolina JLUS Study Area, and enhance long-term coordination on military compatibility issues. The Dare County Range JLUS Implementation Coordination Committee should meet on a regular basis as agreed upon by the Committee.</p> <p>Consider committee membership from the JLUS Policy Committee as well as other community partners as deemed appropriate to maintain continuity and institutional project knowledge. Consider the formation of a technical subcommittee comprising Technical Advisory Committee members to address technical aspects of the JLUS implementation.</p> <p><i>Primary Partner Lead: NC Department of Commerce Rural Economic Development Division</i></p> <p><i>Other Partners: NC Department of Military and Veterans Affairs, and other municipalities in the JLUS Study Area</i></p>	Short-Term		■	■	■	■	■	■	■		■	■

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
COM-2B	DCR Coordination MAA	<p><b>Establish a Memorandum of Agreement for Communication with Northeast North Carolina JLUS Study Area Jurisdictions</b></p> <p>Execute a Memorandum of Agreement for reciprocal communication between Seymour Johnson AFB, the Dare County Range and northeast North Carolina JLUS Study Area jurisdictions. The communications protocol should:</p> <ul style="list-style-type: none"> <li>Define military operations and operational changes that the jurisdictions should be alerted to</li> <li>Identify jurisdiction activities that could impact military operations at the Dare County Range that should be communicated to Seymour Johnson AFB / Dare County Range</li> <li>Identify points of contact for all direct coordination including coordination on planning and land use matters</li> <li>Establish a formal procedure for responding to comments or questions from the military, jurisdictions and the public</li> <li>Establish a standard timeline for responses to address concerns</li> </ul>	Short-Term		■	■	■	■	■	■	■		■	
COM-2C	DCR Coordination MAA	<p><b>Air Force Community Partnership Program</b></p> <p>The Air Force Community Partnership Program helps Air Force installations and the surrounding communities identify and implement mutually beneficial initiatives including public-public and public-private partnerships. Seymour Johnson AFB / Dare County Range and the northeast North Carolina JLUS Study Area jurisdictions should participate in the program to develop new partnership opportunities.</p>	Short-Term		■		■	■	■	■	■		■	



Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
COM-2D	DCR Coordination MAA	<b>Provide Mutual Briefings</b> To perpetually enhance support and cooperation, and reinforce the partnership between Seymour Johnson AFB, Dare County Range and JLUS Study Area jurisdictions, installation leadership should annually present a “state of the installation” briefing including strategic goals, operational changes, and proposed construction projects that may impact the jurisdictions to the northeast North Carolina JLUS Study Area county commissions and city / town councils. The jurisdictions should provide annual briefings to Seymour Johnson AFB / Dare County Range leadership of changes within the communities that may impact the installation including comprehensive plans, master plans, transportation plans, zoning, development projects, and capital improvement plans. <i>Other Partners: NC Department of Commerce Rural Economic Development Division, NC Department of Military and Veterans Affairs</i>	Short-Term		■	■	■	■	■	■	■		■	□
COM-2E	DCR Coordination MAA	<b>Consider Hosting Open House Events at Dare County Range</b> Consider public open house events and installation tours at the Dare County Range to provide enhanced insight on the military mission to educate these groups about the mission at Seymour Johnson AFB and the Dare County Range. Seymour Johnson AFB should evaluate the requirements for such events.	Mid-Term										■	
COM-2F	DCR Coordination MAA	<b>Good Neighbor Program</b> Seymour Johnson AFB should conduct, on a quarterly basis, a Good Neighbor Program in each northeast North Carolina JLUS Study Area jurisdiction where property owners are invited to a Dare County Range Neighbor Town Hall meeting to provide a platform for a two-way communication whereby the Air Force can	Mid-Term										■	

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		address any upcoming mission changes or operations that may have an impact on the jurisdictions and whereby the public can voice any issues or questions they may have. The Good Neighbor Program should include visits to each of the impacted jurisdictions in order to be more convenient and beneficial to all citizens of each jurisdiction, including those unable to attend site specific events.												
COM-2G	DCR Coordination MAA	<b>Small Business Expo</b> Consider conducting a Small Business Expo to outreach and educate local businesses on potential opportunities to support the needs of the Dare County Range. Consider a military presence at local events to increase public awareness and exposure. <i>Other Partners: NC Department of Commerce Rural Economic Development Division, NC Department of Military and Veterans Affairs, Chambers of Commerce</i>	Mid-Term		<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"/>
COM-2I	DCR Coordination MAA	<b>Create a Dare County Range Community Affairs Committee</b> Create a citizen-led Dare County Range Community Affairs Committee consisting of business leaders, property owners, and students to educate and advocate for sustaining the missions at the Dare County Range. The committee could be established through partnerships between Chambers of Commerce who could provide logistics support. Identify champions in the community, community organizations and educational institutions that can sustain the committee once established. Consideration should be made to ensure that public relations materials and efforts include accommodations for non-English speaking citizens. <i>Other Primary Partners: Chambers of Commerce, local citizens, educational</i>	Mid-Term		<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	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<i>institutions</i>												
COM-3	<b>Coordination with Northeast North Carolina Jurisdictions</b> Lack of coordination between Seymour Johnson AFB / Dare County Range and northeast North Carolina counties, cities and towns on planning and land use issues leading to lack of information sharing and coordinated evaluation of reciprocal development impacts.													
COM-3A	DCR Coordination MAA	<b>Establish Internal Information Liaisons</b> Each northeastern NC jurisdiction and Seymour Johnson AFB / Dare County Range should 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.	Short-Term		■		■	■	■	■	■		■	
COM-3B	DCR MIA	<b>Create and Maintain a GIS Data Clearinghouse</b> The counties and municipalities in the northeast North Carolina JLUS Study Area, as well as federal and state agencies and Seymour Johnson AFB should work collaboratively to develop a GIS clearinghouse to share GIS data for the Dare County Range JLUS Study Area, 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. <i>Primary Lead Partner: NC Department of Commerce Rural Economic Development Division</i> <i>Other Partners: federal and state agencies, as appropriate</i>	Mid-Term		□		□	□	□	□	□		□	■

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
COM-3C	DCR MIA	<p><b>Develop a Resource Management Reference Guide</b></p> <p>The northeast North Carolina JLUS partners including Seymour Johnson AFB / Dare County Range should develop a brief reference guide providing information about the various agencies and organizations in the northeast North Carolina JLUS Study Area with their respective missions and responsibilities. This guide should contain:</p> <ul style="list-style-type: none"> <li>■ Map(s) identifying the important resources in the area, and</li> <li>■ Contact information for the agency representative that would help in cases of community-military compatibility</li> </ul> <p><i>Primary Lead Partner: JLUS Implementation Coordination Committee</i></p> <p><i>Other Primary Partners: U.S. Department of Agriculture, Natural Resources Conservation Service, U.S. Department of the Interior, U.S. Fish and Wildlife Service, NC Department of Agriculture and Consumer Services, NC Office of the Commissioner, NC Department of Environmental Quality, NC Department of Commerce Rural Economic Development Division, NC Department of Military and Veterans Affairs, NC Department of Natural and Cultural Resources, NC Natural Heritage Program, NC Department of Transportation, NC State University and College of Natural Resources, University Cooperative for Readiness and Conservation, NC Wildlife Resources Commission, economic and community development organizations, chambers of commerce, environmental foundations and trust funds, conservation organizations, land trusts, NC Farm Bureau, soil and water conservation districts, NC State Grange, Beaufort County Grange, Blackland Farm Managers Association</i></p>	Short-Term		☐		☐	☐	☐	☐	☐		☐	■
		For another strategy that addresses this issue see Strategy COM-2B.			■	■	■	■	■	■	■		■	



Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
COM-4	<b>Communication / Coordination between Wayne County, City of Goldsboro and Seymour Johnson AFB regarding Development Review</b> While Seymour Johnson AFB and jurisdictions may engage in informal verbal and electronic communications, there is no formalized reciprocal coordination that delineates points of contact, types of projects, review timeframes, roles and responsibilities, or acknowledgement of Session Law 2014-79 between Seymour Johnson AFB and the City of Goldsboro and Wayne County for review of development plans.													
COM-4A	Seymour Johnson AFB MCAOD	<p><b>Establish a Seymour Johnson AFB JLUS Implementation Coordination Committee</b></p> <p>Establish a Seymour Johnson AFB JLUS Implementation Coordination Committee to maintain efficient and effective coordination among the City of Goldsboro, Wayne County and Seymour Johnson AFB, oversee the implementation of JLUS recommendations, and enhance long-term coordination on military compatibility issues. The Seymour Johnson AFB JLUS Implementation Coordination Committee should meet on a regular basis as agreed upon by the Committee.</p> <p>Consider committee membership from the JLUS Policy Committee as well as other community partners as deemed appropriate to maintain continuity and institutional project knowledge. Consider the formation of a technical subcommittee comprising Technical Advisory Committee members to address technical aspects of the JLUS implementation.</p> <p><i>Other Primary Partners: NC Department of Commerce Rural Economic Development Division, NC Department of Military and Veterans Affairs</i></p>	Short-Term	■								■	■	■

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
COM-4B	Seymour Johnson AFB Coordination MCA	<p><b>Invite a Seymour Johnson AFB Representative to Serve as a Non-Voting Member on City of Goldsboro Planning Commission</b></p> <p>In an effort to continue a collaborative partnership, execute a Memorandum of Agreement between the City of Goldsboro and Seymour Johnson AFB that allows Seymour Johnson AFB to participate as a non-voting member on the Planning Commission, to attend meetings and provide technical input on military compatibility issues.</p>	Short-Term	■									□	
COM-4C	Seymour Johnson AFB MCAOD	<p><b>Create and Maintain a GIS Data Clearinghouse</b></p> <p>The counties and cities in the JLUS Study Area, as well as federal and state agencies and Seymour Johnson 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><i>Other Partners: federal and state agencies, as appropriate</i></p>	Mid-Term	■								■	■	■
COM-4D	Seymour Johnson AFB MCAOD	<p><b>Develop a Resource Management Reference Guide</b></p> <p>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"> <li>■ Map(s) identifying the important resources in the area, and</li> <li>■ Contact information for the agency representative that would help in cases of community-military compatibility</li> </ul>	Short-Term	■								■	■	■

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<i>Other Primary Partners: U.S. Department of Agriculture, Natural Resources Conservation Service, U.S. Department of the Interior, U.S. Fish and Wildlife Service, NC Department of Agriculture and Consumer Services, NC Office of the Commissioner, NC Department of Environmental Quality, NC Department of Commerce Rural Economic Development Division, NC Department of Military and Veterans Affairs, NC Department of Natural and Cultural Resources, NC Natural Heritage Program, NC Department of Transportation, NC State University and College of Natural Resources, University Cooperative for Readiness and Conservation, NC Wildlife Resources Commission, Wayne County Development Alliance, Wayne County Chamber of Commerce, environmental foundations and trust funds, conservation organizations, land trusts, NC Farm Bureau, soil and water conservation districts, NC State Grange</i>												
COM-4E	Seymour Johnson AFB Coordination MCA	<p><b>Incorporate Seymour Johnson as One of the Agencies that Review Development Applications / Proposals</b></p> <p>Establish a Memorandum of Agreement between the City of Goldsboro, Wayne County and Seymour Johnson AFB to formalize a process that provides copies of certain development proposals, rezoning, and other land use changes for land located within a five mile radius of Seymour Johnson AFB for review and comment pursuant to North Carolina General Statute Section 153A-323. The Memorandum of Agreement should:</p> <ul style="list-style-type: none"> <li>■ Define project types that require review</li> <li>■ Define project types that require military attendance at pre-application meetings</li> <li>■ Identify points of contact for planning coordination</li> <li>■ Establish a formal procedure for requesting and receiving comments</li> <li>■ Establish a timeline for responses, keeping in mind mandated review</li> </ul>	Short-Term	■								■		

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<ul style="list-style-type: none"> <li>time periods as specified by state law and local procedures</li> <li>Provide notice to the military on all public hearings regarding projects identified for coordination</li> </ul>												
COM-4F	Seymour Johnson AFB Coordination MCA	<b>Review of Military Planning Documents</b> Seymour Johnson AFB should provide public versions of key planning documents for review and comment prior to finalization. Key planning documents could include (list to be finalized by Seymour Johnson AFB): <ul style="list-style-type: none"> <li>AICUZ and other noise studies</li> <li>Other documents as deemed appropriate</li> </ul>	Short-Term										■	
COM-4G	Seymour Johnson AFB MCAOD	<b>Develop Memorandum of Agreement for Communications</b> Seymour Johnson AFB should collaborate with local governments and economic development organizations to implement a Memorandum of Agreement that delineates lines of communication between jurisdictions, agencies and Seymour Johnson AFB leadership.	Short-Term	■								■	■	
COM-4H	Seymour Johnson AFB Coordination MCA	<b>Air Force Community Partnership Program</b> The Air Force Community Partnership Program helps Air Force installations and the surrounding communities identify and implement mutually beneficial initiatives. Seymour Johnson AFB and the surrounding jurisdictions should participate in the program to develop new partnership opportunities.	Short-Term	■								■	■	



Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
COM-5	<b>Communication / Coordination between Northeast North Carolina Jurisdictions and Seymour Johnson AFB for Development Review</b> There is no formalized reciprocal consultation between Seymour Johnson AFB / Dare County Range and northeast North Carolina counties, cities, and towns for review of development plans.													
COM-5A	DCR Coordination MAA	<b>Dare County Range Representation as a Non-Voting Member on Planning Boards and Commissions</b>  In an effort to continue a collaborative partnership on planning and land use matters, include in the Memorandum of Agreement in Strategy 2B, a provision for Dare County Range representation to participate as a non-voting member on northeast North Carolina JLUS Study Area jurisdiction Planning Boards and Commissions, to provide notification and opportunity to attend meetings and provide technical input on military compatibility issues. As an alternative, consider provisions for coordination with planners and Boards of Commissioners in the Memorandum of Agreement and electronic reviews of development applications.	Short-Term		■		■	■	■	■	■		□	
COM-5B	DCR Coordination MAA	<b>Adopt Development Notification Checklist</b>  Jurisdictions within five miles of the Dare County Range and within areas of Restricted Area airspace should work with Seymour Johnson AFB and Dare County Range to develop, adopt and implement a development notification checklist that will assist jurisdictions, developers, residents and the military with identifying development types that could potentially be incompatible with the Seymour Johnson AFB mission at the Dare County Range.  The checklist should define applicable development types, locations and scales that warrant military review and should be standardized for use by all jurisdictions to ensure consistency and eliminate interpretation in how, when and where the checklist is applied. The checklist could be used as a tool for a continuing dialog	Short-Term			◆		■	■	■	■		□	■◆

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<p>between northeast North Carolina jurisdictions and the military to assist with early notification to developers. The checklist should not be regarded as a mechanism to approve or deny development.</p> <p>Beaufort County (♦) should consider working with Marine Corps Air Station Cherry Point (♦) to develop, adopt and implement a development notification checklist for the county area within Restricted Area R-5306A.</p> <p><i>Other Primary Partners: Towns of Creswell, Roper, and Plymouth</i></p>												
COM-5C	DCR Coordination MAA	<p><b>Formalize Dare County Range in Development Reviews</b></p> <p>Jurisdictions within five miles of the Dare County Range and within Restricted Area airspace should formalize development reviews by Seymour Johnson AFB / Dare County Range in planning documents and Coastal Area Management Act (CAMA) Land Use Plans per the checklist established in Strategy COM-3C and pursuant to North Carolina General Statute Section 153A-323 for areas within five miles of the Dare County Range. Include formalizing this same requirement within Restricted Area airspace. Include procedures for military notification and timeframes for review to support a proactive approach for identifying and mitigating potential military incompatibilities. Provisions should specify:</p> <ul style="list-style-type: none"><li>■ Defining planning actions that require military review</li><li>■ Identification of the Points of Contact in the development review process</li><li>■ Formal procedures for transmitting applications to Seymour Johnson AFB / Dare County Range</li><li>■ Formal procedures for requesting and receiving comments</li><li>■ Timeline for military responses considering review timeframes specified by state law and local procedures</li><li>■ Notification to Seymour Johnson AFB / Dare County Range on all public</li></ul>					■	■	■	■				

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		hearings related to development applications Beaufort County (♦) should consider formalizing notification to the Marine Corps Air Station Cherry Point in the CAMA Land Use Plan for development within Restricted Area R-5306A.												
COM-5D	DCR MIA	<b>Review of Military Planning Documents</b> Seymour Johnson AFB should provide public versions of any key planning documents, e.g., related to the Dare County Range and its use for review and comment prior to finalization.	Short-Term										■	
		For additional strategies that address this issue see Strategies COM-2B, COM-2D, COM-2I, COM-3A, and COM-3B.			■	■	■	■	■	■	■		■	■
COM-6	<b>Mutual Aid for Fire Management / EMS between Dare County Range and Surrounding Counties</b> Need for formal Memorandum of Understanding to provide mutual aid for Fire Management / Emergency Medical Services with Dare County Range due to the remoteness of the Range location and rural nature of surrounding counties.													
COM-6A	DCR Coordination MAA	<b>Memorandum of Understanding for Mutual Aid</b> Develop formal Memorandums of Understanding between Dare County Range and Hyde, Tyrrell and Washington counties for Fire Management / EMS Services / Emergency Response for military emergencies that impact areas outside the Dare County Range. <i>Other Primary Partner: Town of Creswell</i>							■	■	■		■	■

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
COM-7	Awareness of Communication Procedures for Contacting Seymour Johnson / Dare County Range Regarding Complaints and / or Concerns Local jurisdictions and the public do not know who to contact at Seymour Johnson AFB / Dare County Range regarding concerns, complaints or coordination.													
COM-7A	Seymour Johnson AFB MCAOD / DCR MIA	<b>Make Seymour Johnson AFB and Dare County Range Points of Contact More Widely Known</b> Advertise and increase awareness of Seymour Johnson Public Affairs and other contact numbers for all community complaints and inquiries. Communication procedures, including methods for providing input, posing inquiries, and expected response time should be prominently posted on the Seymour Johnson AFB website and made available on jurisdiction websites, social media, and posted in public facilities such as community centers, municipal buildings, and local newsletters.	Short-Term	■	■		■	■	■	■	■	■	■	
COM-7B	Seymour Johnson AFB MCAOD / DCR MIA	<b>Informational Brochure</b> Develop and distribute an informational brochure describing the Air Force mission and airspace needed to effectively conduct the military mission at the Dare County Range along with Public Affairs contact information. This brochure should be distributed to all the JLUS jurisdictions' public offices, posted to the Seymour Johnson AFB website homepage and distributed to JLUS Study Area jurisdictions so that it can be posted on their websites.	Short-Term	□	□		□	□	□	□	□	□	■	
		For additional strategies that address this issue see Strategies COM-1A, COM-2E, and COM-2F.			□	□	□	□	□	□	□		■	



Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
COM-8	<b>Coordination with the Military on Cell Tower Siting</b> Although some counties currently request FAA Obstruction Evaluations for proposed cell towers, the military is only notified if a proposed tower meets the minimum FAA criteria.													
COM-8A	Seymour Johnson AFB Imaginary Surfaces MCA / DCR Vertical Obstruction MAA	<b>Incorporate FAA Review Documentation as Requirement for Tower Applications</b>  Seymour Johnson AFB review of telecommunication towers is conducted as part of the Federal Aviation Administration review and determination process. Amend local planning documents to require a Finding of No Significant Impact from the Federal Aviation Administration to be submitted with telecommunication tower development applications.	Mid-Term	■	■			■	■		■	■		
COM-9	<b>Coordination of Flight Activities between Seymour Johnson AFB / Dare County Range and Other Military and Government Agencies over Albemarle Sound</b> Need for coordination of flight activities between Seymour Johnson AFB / Dare County Range and other military and government agencies over Albemarle Sound.													
COM-9A	DCR MIA	<b>Educate the Public about Airspace Coordination</b>  Increase public awareness of coordination procedures between different branches of the military and other government agencies that use shared airspace within the JLUS Study Area. Include this information as part of the Public Outreach Campaign Plan in Strategy COM-1A, in information posted to the Dare County Range website per Strategy COM-1D, and in the Informational Brochure in Strategy COM-7A.  <i>Other Partners: Federal Aviation Administration, NAS Oceana, MCAS Cherry Point, Andrews AFB</i>	Mid-Term		□		□	□	□	□	□		■	□

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
COM-10	<b>Lack of Information to Public on Water Ranges</b> Because of competition for use of the water among recreational boaters and fishermen, sea spaces need to be cleared where restricted areas, military operating areas, and military training routes begin at the surface when active training and operations are occurring throughout the JLUS Study Area.													
COM-10A	DCR Coordination MAA	<b>Informational Brochure</b> Seymour Johnson AFB should coordinate with other branches of the military to develop an informational brochure detailing boater safety in areas of military overflight over water, and water ranges including locations, hours of operation, branch of military controlling the range and contact information. Post the brochure on the Dare County page of the Seymour Johnson website per Strategy COM-1D. Coordinate with the North Carolina Division of Marine Fisheries to make the brochure available where fishing licenses are issued and with the North Carolina Department of Environmental Quality and North Carolina Division of Parks and Recreation for distribution at commercial marinas.  <i>Other Primary Partners: NAS Oceana, MCAS Cherry Point, Andrews AFB, North Carolina Division of Marine Fisheries, North Carolina Department of Environmental Quality, North Carolina Division of Parks and Recreation, North Carolina Wildlife Resources Commission</i>	Short-Term										<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>DUST / SMOKE / STEAM (DSS)</b>														
DSS-1	<b>Prescribed Burns from Agricultural Farming</b> Some farmers in Hyde and Tyrrell Counties use fire to clear wheat straw prior to replanting. Concern that prescribed burns can impact flight training activities.													
DSS-1A	DCR Coordination MAA	<b>Communication on Prescribed Burns</b> The North Carolina Forest Service should establish protocols to notify Seymour Johnson AFB, the North Carolina State Highway Patrol, US Fish and Wildlife	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"/>

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		Service, and JLUS Study Partner jurisdiction Emergency Services Departments of planned controlled burns. <i>Primary Lead Partner: North Carolina Forest Service</i> <i>Other Partners: North Carolina State Highway Patrol and US Fish and Wildlife Service</i>												
<b>DSS-2</b>	<b>Wildfire Impacts on Dare County Range Operations</b> Wildfires have the potential to impact flight patterns and training activities at the Dare County Range.													
DSS-2A	DCR Coordination MAA	<b>Continue to Enhance Resources to Fight Wildfires</b> Continue to monitor wildfire threat conditions and plan for wildfire suppression in areas surrounding the Dare County Range including MOAs, MTRs, and restricted area airspace through the continued coordination of resources, application of grants and assistance for fire department training and equipment procurement, and participation in fire-training courses. Consider including Hyde and Tyrrell counties in wildfire preparedness activities in conjunction with Strategy COM-6A. <i>Other Primary Partners: North Carolina Forest Service District 13, US Fish and Wildlife Service, US Department of Agriculture Forest Service, and North Carolina Department of Public Services Emergency Management</i>	On-Going					■	■	■			■	■

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
<b>ENERGY DEVELOPMENT (ED)</b>														
ED-1	<b>Potential Wind Farm Impacts on Seymour Johnson AFB and Dare County Range Training Operations</b> There is a need for a formal, coordinated site selection process and standard criteria for wind energy development.													
ED-1A	Seymour Johnson AFB Imaginary Surfaces MCA / DCR Vertical Obstruction MAA	<b>Update CAMA Land Use Plans for Wind Energy Projects</b> Update CAMA Land Use Plans to incorporate military compatibility policies for wind energy facilities.	Short-Term	■	■		■	■	■	■	■	■		
ED-1B	Seymour Johnson AFB Imaginary Surfaces MCA / DCR Vertical Obstruction MAA	<b>Amend Land Use Documents for Wind Energy Projects</b> Update land use documents to comply with provisions of North Carolina General Statute Section 143-215-116 requiring a state permit for wind energy facilities prior to obtaining local jurisdiction approval.	Short-Term					■	■	■	■			



Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
ED-1C	Seymour Johnson AFB Imaginary Surfaces MCA / DCR Vertical Obstruction MAA	<b>Adopt Requirements for Wind Energy Facilities for Military Compatibility</b> If at a future date a jurisdiction adopts requirements for wind energy facilities, incorporate provisions of North Carolina General Statute Section 143-215-116 requiring a state permit for wind energy facilities prior to obtaining local jurisdiction approval.	Long-Term	■	■		■					■		
ED-1D	Seymour Johnson AFB Imaginary Surfaces MCA / DCR Vertical Obstruction MAA	<b>Identify and Map Locations Suitable for Wind Energy Development</b> Identify and publish locations for alternative energy development that are ideal for wind developers as well as compatibility with military operations, and where alternative energy development would be incompatible, and locations where it may be conditionally compatible. 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 with Seymour Johnson AFB and Dare County Range operations. <i>Primary Lead Partner: NC Department of Environmental Quality</i>	Mid-Term	□	□		□	□	□	□	□	□	□	■
ED-1E	Seymour Johnson AFB Imaginary Surfaces MCA / DCR Vertical Obstruction MAA	<b>Adopt Mapped Locations Suitable for Wind Energy Facilities in Land Use Ordinances</b> Incorporate mapped locations suitable for wind energy development in wind energy facility ordinances based on military compatibility and any applicable state laws. Jurisdictions that currently do not have wind energy facility ordinances (◆), but do so in the future, should incorporate mapped locations suitable for wind energy	Long-Term	◆	◆		◆	■	■	■	■	◆		

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		development in ordinances at that time.												
ED-1F	Seymour Johnson AFB Imaginary Surfaces MCA / DCR Vertical Obstruction MAA	<p><b>Procedures to Ensure Coordination with DOD Siting Clearinghouse</b></p> <p>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 (CAMA Land Use Plans, regional plans, and renewable energy regulations) to incorporate policies and procedures for ensuring coordination of alternative energy development applications with the DOD Siting Clearinghouse.</p> <p>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.</p> <p><i>Other Primary Partners: Developers, DOD Siting Clearinghouse</i></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 type="checkbox"/>	<input checked="" type="checkbox"/>
<b>HOUSING AVAILABILITY (HA)</b>														
HA-1	<p><b>Lack of Local Short-Term Accommodation for Training Reservists</b></p> <p>The lack of sufficient quantities of short-term lodging has resulted in military workforce commuting to Seymour Johnson AFB from as far away as Raleigh, which can require a minimum commute time of over an hour each way.</p>													
HA-1A	Seymour Johnson AFB MCAOD	<p><b>Quantify Short-Term Accommodation Needs</b></p> <p>Seymour Johnson AFB should share short-term lodging needs for training reservists based on unit training assembly requirements / projections with the City of Goldsboro and Wayne County for planning purposes and Wayne County</p>	On-Going	<input type="checkbox"/>								<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		Development Alliance for marketing purposes.												
HA-1B	Seymour Johnson AFB MCAOD	<b>Update Comprehensive Plan Housing Element and Zoning Code</b> Update the Comprehensive Plan Housing Element to recognize the need for short-term lodging at Seymour Johnson AFB and to ensure there is sufficient land designated on the Future Land Use Map and Zoning Map to meet the demand.	Long-Term	■								■		
HA-1C	Seymour Johnson AFB MCAOD	<b>Public-Public and Public-Private Partnerships</b> Investigate the feasibility of a local government / Air Force / private developer partnership to build short-term accommodations for Seymour Johnson AFB.	Short-Term	■								■	■	
HA-2	<b>Lack of Various Housing Opportunity Off-Base</b> Local jurisdictions' growth policies do not address military workforce housing needs.													
HA-2A	Seymour Johnson AFB MCAOD	<b>Evaluate Need for Housing Survey</b> Evaluate whether an updated housing requirements market analysis survey is required to ensure that off-site housing needs for a variety of housing types can be met within the surrounding community.	Short-Term										■	
HA-2B	Seymour Johnson AFB MCAOD	<b>Inform communities of Air Force housing needs</b> Seymour Johnson AFB should provide the City of Goldsboro and Wayne County with the results of housing survey recommended in Strategy HA-2A to support Seymour Johnson AFB housing needs.	Short-Term										■	

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
HA-2C	Seymour Johnson AFB MCAOD	<b>Update Comprehensive Housing Element and Zoning Code</b> Update Comprehensive Plan Housing Element to include policies that recognize and reflect housing need associated with Seymour Johnson AFB and to ensure there is sufficient land designated on the Future Land Use Map and Zoning Map to meet the demand.	Long-Term	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input type="checkbox"/>	
HA-2D	Seymour Johnson AFB MCAOD	<b>Inform Jurisdictions about Seymour Johnson AFB housing services</b> Inform local realtor associations about the Seymour Johnson AFB Housing Management Office services and how new personnel are informed of local housing options to promote housing availability in the City of Goldsboro and Wayne County. <i>Other Partner: North Carolina Association of Realtors</i>	Short-Term	<input type="checkbox"/>								<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>LAND / AIR / SEA SPACES (LAS)</b>														
LAS-1	<b>Potential for Increased Use of Military Training Routes</b> Concern that increased use of Military Training Routes could exacerbate impacts on areas of overflight in northeast North Carolina.													
LAS-1A	DCR MIA	<b>Convene a Regional Overflight Working Group to Evaluate the Cumulative Effects of Increased Use of Military Airspace</b> Convene a Regional Overflight Working Group to conduct a study on the cumulative impacts of increased use of military airspace including Military Training Routes and the Dare County Range and addition of F-35 aircraft on the northeast North Carolina JLUS Study Area. Quantify the incremental impacts of increased usage on patterns of land use; natural, historic, and cultural resources; and economic viability of jurisdictions and the region. Explore and propose	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"/>



Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<p>potential mitigations. The committee composition should reflect the northeastern North Carolina JLUS Study Area jurisdictions, Seymour Johnson AFB, and other agencies / organizations that can assist with data collection, analysis, and support. Publish evaluation findings to make available to a wide audience including federal and state agencies and the general public.</p> <p><i>Primary Lead Partner: NC Department of Commerce Rural Economic Development Division</i></p> <p><i>Other Primary Partners: US Fish and Wildlife Service, North Carolina Division of Marine Fisheries, North Carolina Department of Environmental Quality, North Carolina Division of Parks and Recreation, NC Department of Agriculture and Consumer Services, NC Department of Military and Veterans Affairs, NC Department of Natural and Cultural Resources, NC Natural Heritage Program, NC State University and College of Natural Resources, University Cooperative for Readiness and Conservation, NC Wildlife Resources Commission, NC Farm Bureau, soil and water conservation districts, NC State Grange, local airport leadership</i></p>												
LAS-2	<b>Potential for Increased use of Dare County Range</b> Concern that increased use along with evolving and new missions at Dare County Range could introduce additional impacts on areas of overflight in northeast North Carolina.													
		For a strategy that addresses this issue see Strategy LAS-1A.			■		■	■	■	■	■		■	■

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
LAS-3		<b>Potential Loss of Diversity Regarding Low-Level Flight Routes</b> Concern that losses from any reduced capacity or changes in low-level flight routes could impact flight training capability for Seymour Johnson AFB and training mission at Dare County Range.												
LAS-3A	DCR MIA	<b>Quantify the Impact of Loss of Military Airspace</b> Conduct a study on the impact of reduced capacity of military airspace on the training missions at Seymour Johnson AFB and the Dare County Range. Quantify the impact on training hours, cost, and risk to viability of Dare County Range. Reach out to other military users of these low level flight routes and the Dare County Range to include quantified impacts on their mission and include in results. <i>Other Partners: NAS Oceana, MCAS Cherry Point, Andrews AFB</i>	Long-Term										■	□
LAS-4		<b>Further Introduction of the F-35 Aircraft into the North Carolina Airspace</b> Concern that further introduction of F-35 Joint Strike Fighter to training in northeast North Carolina could introduce additional impacts to areas of overflight.												
		For a strategy that addresses this issue see Strategy LAS-1A.			■		■	■	■	■	■		■	■
LAS-5		<b>Restricted General Aviation Use of Northeast North Carolina Airspace due to Restricted Areas, Military Operating Areas and Military Training Routes</b> Growth at general aviation airports can be hampered by the complexity of military related Restricted Areas, Military Operating Areas, and Military Training Routes that reduce available airspace and access to local airports.												
LAS-5A	DCR MIA	<b>Convey Concerns to the Federal Aviation Administration</b> Document impacts to airport growth including constraints resulting from military airspace and submit to the Federal Aviation Administration for consideration and possible remedies.	Short-Term						■					■

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<i>Other Primary Partners: local airports constrained by military airspace</i>												
LAS-6	<b>Aerial Crop Spraying Proximate to Dare County Range</b> Low-level flight used for the aerial application of crop spraying in Military Training Routes and Restricted Areas near the Dare County Range has the potential to impact military flight training.													
LAS-6A	DCR Vertical Obstruction MAA	<b>Implement Scheduling Coordination</b> Implement scheduling coordination procedures to deconflict operations and accommodate access by local farming interests when they need to fly in or through Military Training Routes and Restricted Areas, when they are active.  <i>Other Primary Partners: farmers, crop dusting operators, NC Farm Bureau, Blackland Farm Managers Association, NC State Grange, Beaufort County Grange, local airport leadership</i>	Mid-Term										■	■
LAS-7	<b>Recreational Use of Drones</b> Recreational drone use has the potential to interfere with military overflight near the Dare County Range and within Military Training Routes.													
LAS-7A	DCR Vertical Obstruction MAA	<b>Promote Awareness of Regulations for Unmanned Aircraft</b> Promote awareness of Federal Aviation Administration rules for unmanned aircraft hobbyists and non-hobbyists including areas where such aircraft may and may not be permissible.	Long-Term		■		■	■	■	■	■			
		For another strategy that addresses this issue see Strategy LAS-6A.											■	■

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
LAND USE (LU)														
LU-1	<b>Compatible Land Use in Comprehensive Plans and Zoning</b> Need for City of Goldsboro and Wayne County to update Comprehensive Plans and planning documents including zoning to reflect compatible land use recommendations including non-residential intensity (floor area ratio) in the 2011 AICUZ Study and Air Force Instruction 32-7063.													
LU-1A	Seymour Johnson AFB MCAOD	<b>Define and Establish Military Compatibility Areas</b> The City of Goldsboro and Wayne County should incorporate 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 the city and county to identify areas where specific compatibility issues are more likely to occur. Implementation of the MCAOD and associated strategies for these areas will facilitate: <ul style="list-style-type: none"> <li>■ Creating a broader framework for making sound planning decisions around military airfields and areas subject to military overflight;</li> <li>■ More accurately identifying areas that can affect or be affected by military missions;</li> <li>■ Protecting the public's health, safety, and welfare;</li> <li>■ Protecting the military mission;</li> <li>■ Creating a compatible mix of land uses; and</li> <li>■ Promoting an orderly transition and rational organization of land use around military airfields and operating areas.</li> </ul> The MCAs for the Seymour Johnson AFB MCAOD are defined as follows: <ul style="list-style-type: none"> <li>■ <b>Coordination MCA</b> – Includes all land within 5 miles of the boundary of the Seymour Johnson AFB where coordination strategies apply per</li> </ul>	Mid-Term	■								■	□	□



Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<p>General Statutes Sections 143-151 and 153A-323(b).</p> <ul style="list-style-type: none"><li>■ <b>Noise MCA</b> – Includes all land off-installation within the Seymour Johnson AFB 65 dB contour for aircraft noise, as identified by the Seymour Johnson AFB Air Installation Compatible Use Zone (AICUZ) Report.</li><li>■ <b>Safety MCA</b> – Includes the Clear Zone (CZ) and Accident Potential Zones (APZs) I and II associated with the Seymour Johnson AFB runway.</li><li>■ <b>Imaginary Surfaces MCA</b> – Includes land under the imaginary surfaces for the runway at Seymour Johnson AFB.</li><li>■ <b>BASH MCA</b> – Includes an area within 5 miles of the airport operational area at Seymour Johnson AFB where the majority of bird strikes are statistically likely to occur.</li></ul> <p>To assist in this effort, geographic information system (GIS) files of these boundaries should be made available by the North Carolina Department of Commerce Rural Economic Development Division following finalization of this JLUS and approval of these MCAs. Updates to the data relative to noise contours shall be provided by Seymour Johnson 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 future land use and zoning maps and publish on their websites for easy access by the public.</p> <p><i>Other Partners: North Carolina Department of Commerce Rural Economic Development Division</i></p>												

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
LU-1A	DCR MIA	<p><b>Define and Establish Military Awareness Areas</b></p> <p>The northeast North Carolina JLUS Study Partners should incorporate in CAMA Land Use Plans, a Military Influence Area (MIA) consisting of Military Awareness Areas (MAAs) that reflect the types and intensity of compatibility issues. The MIA is the collective geographic area of all of the MAAs combined. The MAAs should be used by counties and local jurisdictions to identify areas where specific compatibility issues are more likely to occur. Implementation of the MIA and associated strategies for these areas will facilitate:</p> <ul style="list-style-type: none"> <li>■ Creating a broader framework for making sound planning decisions in areas subject to military overflight;</li> <li>■ More accurately identifying areas that can affect or be affected by military missions;</li> <li>■ Protecting the public's health, safety, and welfare; and</li> <li>■ Balancing protection of the military mission with community economic viability.</li> </ul> <p>The MAAs for the Dare County Range MIA are defined as follows:</p> <ul style="list-style-type: none"> <li>■ <b>Coordination MAA</b> – Includes land adjacent to the Dare County Range, subject to military low-level flight operations, and within the 5-mile boundary from the Dare County Range where coordination strategies apply per General Statutes Sections 143-151 and 153A-323(b).</li> <li>■ <b>Noise MAA</b> – Includes all land located off-installation within the Dare County Range noise contours greater than 65 decibels (dB) day-night sound level (DNL) and areas subject to low-level overflight within Military Training Routes, Restricted Areas and Military Operating Areas throughout northeast North Carolina.</li> </ul>	Mid-Term		■		■	■	■	■	■		□	□

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<ul style="list-style-type: none"> <li><b>Vertical Obstruction MAA</b> – Serves to protect important flight areas for aircraft that operate in military airspace associated with the military mission at the Dare County Range and areas identified by the Air Force as a High Risk of Adverse Impact.</li> </ul> <p>To assist in this effort, geographic information system (GIS) files of these boundaries should be made available by the North Carolina Department of Commerce Rural Economic Development Division following finalization of this JLUS and approval of these MAAs.</p> <p>Where appropriate, the jurisdictions should incorporate the MIA and MAA boundaries on CAMA Land Use Plans and publish on their websites for easy access by the public.</p> <p><i>Other Partners: North Carolina Department of Commerce Rural Economic Development Division</i></p>												
LU-1B	Seymour Johnson AFB MCAOD / DCR MIA	<p><b>Maintenance and Update of MCAs and MAAs</b></p> <p>Seymour Johnson AFB should provide updated information to the Seymour Johnson JLUS Implementation Coordination Committee (Strategy COM-4A) and Dare County Range JLUS Implementation Coordination Committee (Strategy COM-2A) and when changes in operations or circumstances result in the need to update or modify one of the MCA or MAA boundaries. The JLUS Coordination Committee will be responsible for making a recommendation to JLUS partner jurisdictions to incorporate these changes into appropriate plans, regulations, and policies.</p> <p><i>Other Primary Partners: US Navy, Seymour Johnson JLUS Implementation Coordination Committee and Dare County Range JLUS Implementation</i></p>	Long-Term	■	■		■	■	■	■	■	■	■	■

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<i>Coordination Committee</i>												
LU-1C	Seymour Johnson Noise and Safety MCAs	<b>Update Comprehensive Plans to Include Military Compatibility Policies that Support and Promote Compatible Land Uses</b> Update Comprehensive Plans goals, objectives, and policies supportive of a compatible land use pattern for new development including findings from the 2011 AICUZ Study and nonresidential Floor Area Ratios recommended in Air Force Instruction 32-7063.	Short-Term	■								■		
LU-1D	Seymour Johnson Noise and Safety MCAs	<b>Amend Zoning Regulations with Recommended Land Uses</b> Amend zoning regulations to incorporate findings from the 2011 AICUZ Study and nonresidential floor area ratios recommended in Air Force Instruction 32-7063 for land uses within the safety and noise zones.	Short-Term	■								■		
LU-2	<b>Need for Enhanced Transparency on Future Land Use and Zoning Maps</b> The City of Goldsboro future land use and zoning maps do not denote the Seymour Johnson AFB airfield safety zones or imaginary surfaces per the 2011 AICUZ Study. The Wayne County future land use and zoning maps do not denote the Seymour Johnson AFB airfield safety zones and noise zones.													
LU-2A	Seymour Johnson Noise, Safety, and Imaginary Surfaces MCAs	<b>Update Future Land Use Maps</b> Update Comprehensive Plan future land use maps to incorporate Seymour Johnson AFB safety zones, noise zones and imaginary surfaces. Ensure these are featured on the City of Goldsboro and Wayne County online GIS maps to assist the public with determining if a property is within one of these areas.	Short-Term	■								■		



Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
LU-2B	Seymour Johnson Noise, Safety, and Imaginary Surfaces MCAs	<b>Update Zoning Maps</b> Update zoning maps to depict overlay districts, safety zones, noise zones, and imaginary surfaces. Ensure these are featured on the City of Goldsboro and Wayne County online GIS maps to assist the public with determining if a property is within one of these zones.	Short-Term	■								■		
LU-2C	Seymour Johnson Noise, Safety, and Imaginary Surfaces MCAs	<b>Foster Enhanced Public Awareness Through Accurate Mapping</b> Provide all of the surrounding local, county, regional, and state governments with an accurate geographic information system (GIS) data layer or geodatabase of the installation boundaries and military footprints that extend outside the installation for inclusion on all land use, transportation, park and recreation, public facilities, and other related planning documents.	On-Going	■								■	■	
		For another strategy that addresses this issue see Strategy LU-1A.		■	■		■	■	■	■	■	■	□	
LU-3	<b>Need for Enhanced Zoning Regulations Specific to Seymour Johnson AFB Airfield Imaginary Surfaces</b> Height restrictions for areas surrounding Seymour Johnson AFB are incorporated in City of Goldsboro zoning regulations by reference but there is no explanation of the imaginary surfaces, heights associated with each, or how they are applied. Though the Wayne County Zoning Regulations include imaginary surfaces, there is a reliance on FAA Obstruction Evaluations for determining compliance with height requirements which only address structures greater than 199 feet. This may be insufficient for areas in close proximity to Seymour Johnson AFB.													
LU-3A	Seymour Johnson AFB Imaginary Surfaces MCA	<b>Amend Zoning Regulations and Procedures for Imaginary Surface Heights and Slopes</b> The City of Goldsboro and Wayne County should amend zoning regulations to explain imaginary surface slopes and heights, how structure heights are assessed	Long-Term	■								■		

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		for compliance, provisions for nonconformities that are substantially damaged or destroyed, and incorporate notification requirements to Seymour Johnson AFB for structures that are less than 200 ft. tall and not subject to a Federal Aviation Administration Obstruction Evaluation.												
		For other strategies that address this issue see Strategies LU-1A, LU-2A, LU-2B, and LU-2C.		■	■		■	■	■	■	■	■	■	
LU-4		<b>Height Restrictions Impact Economic Development Opportunities</b> Economic development opportunities including ecotourism and wind energy development in areas of overflight are challenged due to noise and vibration impacts from low-level military flight.												
LU-4A	DCR Noise MAA	<b>Tourism Avoidance Areas</b> Jurisdictions in the northeast NC JLUS Study Area should consult with the DOD to consider adding additional tourist areas to the list of avoidance areas not already delineated in the DOD Flight Information Publication Area Planning Military Training Routes document (AP/1B).	Mid-Term		■		■	■	■	■	■			■
LU-4B	DCR Vertical Obstruction MAA	<b>Consider Working with Wind Energy Providers to Reach an Agreement that Supports Wind Energy</b> Seek local support to develop agreements between the military, northeast NC JLUS Study Area jurisdictions 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. Consider approaches such as a land mitigation program between private property owners and government agencies that would result in preservation of land where wind energy	Short-Term		□		□	□	□	□	□		□	■

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		<p>facilities can be located compatible with military missions.</p> <p><i>Primary Lead Partner: Department of Environmental Quality</i></p> <p><i>Other Primary Partner: state land-holding agencies, developers, private property owners</i></p>												
<b>LEGISLATIVE INITIATIVES (LEG)</b>														
LEG-1	<b>Coordinating Wind Farm Development with Military</b> Need to enhance coordination of wind farm development with Seymour Johnson AFB / Dare County Range.													
LEG-1A	Seymour Johnson AFB MCAOD / DCR MIA	<p><b>Amend Article 21C Permitting of Wind Energy Facilities of the North Carolina General Statutes</b></p> <p>Consider amending Article 21C Permitting of Wind Energy Facilities of the North Carolina General Statutes to identify areas where wind energy projects are not permissible, where coordination with the military is required and where wind energy projects are not detrimental to the military mission with the intent of minimizing the area of applicable restriction. Consider incorporating a process to fast-track the permitting of wind energy facilities where development is not detrimental to the military mission and where it can be accomplished through coordination with the military. Consider establishing a land exchange program between government agencies and affected counties that would facilitate the development of wind energy facilities in areas of no impact on the military mission while preserving those areas of greatest concern.</p> <p><i>Primary Partners: NC Military Affairs Committee, NC General Assembly</i></p>	Short-Term											■

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
LEG-2		<b>State Engagement on Funding Partnering</b> Need for enhanced engagement with congressional stakeholders to preserve partnerships, promote cooperation, and secure funding for the acquisition of land for conservation buffers surrounding Seymour Johnson AFB.												
LEG-2A	Seymour Johnson AFB MCAOD / DCR MIA	<b>Create State Funding Mechanisms</b> Consider adopting an amendment to the NC General Statutes to create state funding mechanisms to assist county and municipal governments in long-range land use and infrastructure planning including acquisition of conservation buffers to support military compatibility, and workforce training in geographic areas impacted by military operations, and for the acquisition of land through a land exchange program as recommended in Strategy LU-4B. <i>Primary Partners: NC Military Affairs Committee, NC General Assembly</i>	Short-Term											■
LEG-3		<b>Military Compatibility Legislation</b> Need for enhanced military compatibility legislation to ensure appropriate response timeframes and applicability to precise geographic areas.												
LEG-3A	Seymour Johnson AFB Coordination MCA / DCR Coordination MAA	<b>Early Development Application Notification to Seymour Johnson AFB</b> Consider adopting an amendment to the NC General Statute Section 153A-323(b) to require early notification to Seymour Johnson AFB of development applications rather than at the public hearing stage. Consider incorporating a process to fast-track the permitting of wind energy facilities where development is not detrimental to the military mission and where it can be accomplished through coordination with the military as recommended in Strategy LEG-1A. <i>Primary Partners: NC Military Affairs Committee, NC General Assembly</i>	Short-Term											■



Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
<b>LIGHT AND GLARE (LG)</b>														
LG-1	<b>Light and Glare within Approach and Departure Surfaces</b> Certain uses and developments can generate daytime glare and nighttime lighting conditions which can affect pilot visibility in approach and departure corridors extending from the ends of runways.													
LG-1A	Seymour Johnson AFB Imaginary Surfaces MCA	<b>Dark Skies Ordinances</b> The City of Goldsboro and Wayne 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. Develop specific zoning regulations to reduce light pollution and protect night skies from significant increases in ambient light and glare including requirements for fixtures that preclude uplighting and requirements for LED billboard lighting within Approach and Departure Corridors. Coordinate with Seymour Johnson AFB on acceptable types and extent of cultural lighting.	Mid-Term	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>NOISE (NOI)</b>														
NOI-1	<b>Noise from Overflight in Military Training Route Corridors</b> Low-level flight along Military Training Route corridors generates noise that can affect noise sensitive land uses under areas of overflight.													
NOI-1A	Seymour Johnson AFB Noise MCA / DCR Noise MAA	<b>Amend State Building Code for Sound Attenuation</b> The North Carolina Building Code Council should consider incorporating sound attenuation in building construction requirements to achieve a maximum interior noise level of 45 dB from external sources for habitable areas. <i>Other Primary Partner: North Carolina Building Code Council</i>	Short-Term											<input checked="" type="checkbox"/>

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
NOI-1B	Seymour Johnson AFB MCAOD / DCR MIA	<b>Establish a Coordinated Noise Complaint System</b> Seymour Johnson AFB and Dare County Range should establish and implement a coordinated noise complaint system which is accessible to the public and includes, but is not limited to: <ul style="list-style-type: none"> <li>A common form to complete about the noise nuisance that describes the noise, time the noise occurred, frequency, etc.</li> <li>Points of contact for all communities and the installation</li> <li>Response time for addressing the noise</li> <li>Follow-up to ensure the complaint was either addressed or explanation as to why it was not addressed</li> </ul>	Short-Term										■	
NOI-1C	Seymour Johnson AFB MCAOD / DCR MIA	<b>Amend Real Estate Disclosures</b> Consider amending Chapter 47E of the North Carolina Statutes to require real estate brokers and salespersons to disclose whether a property is within an area of military overflight. Consider incorporating the airspace map in the possession of the North Carolina Military Affairs Commission as part of this disclosure. <i>Primary Partner: State Legislature</i> <i>Other Primary Partner: North Carolina Real Estate Commission</i>	Mid-Term											■
NOI-2	<b>Incompatible Development in Seymour Johnson AFB Noise Contours</b> Noise from activities at Seymour Johnson AFB has the potential to affect noise sensitive land uses in surrounding communities. Greater intensities in development within Seymour Johnson AFB noise contours have the potential to affect mission-critical training.													
NOI-2A	Seymour Johnson AFB Noise MCA	<b>Amend Building Codes for New Construction</b> Amend Building Codes to require sound attenuation to achieve an interior noise level of 45 dB for any new buildings or significant changes or additions to current	Mid-Term	■								■		

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		buildings located within the 65 dB or louder noise contours.												
NOI-2B	Seymour Johnson AFB Noise MCA	<b>Consider Developing a Voluntary Sound Attenuation Retrofit Program for Residential Uses</b> Consider developing a program that provides guidance on sound attenuation standards for retrofitting existing residential and commercial facilities. The program can include grant opportunities available to assist property owners in retrofitting structures in noise-sensitive areas. Other funding sources for retrofitting homes should be identified and provided within the program materials.	Mid-Term	■								■		
NOI-2C	Seymour Johnson AFB Noise MCA	<b>Involve JLUS Jurisdiction Staff in AICUZ Revisions</b> Provide consultation opportunities for JLUS partnering jurisdiction staff in AICUZ updates to determine actual incompatibility of existing structures in noise zones based on densities and construction methods used.	Mid-Term	□								□	■	
NOI-2D	Seymour Johnson AFB Noise MCA	<b>Nonconforming Uses in Noise Overlay District</b> Revise the Zoning Ordinance Noise Overlay District to specific that nonconforming uses that are discontinued after 180 days cannot be reestablished and to correct inconsistencies such as statements that residential uses are not permitted within 70 dB and higher noise contours but existing residences may be reconstructed in these areas if substantially damaged or destroyed.	Short-Term	■								■		

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
NOI-3		<b>Noise from Overflight Affects Bird and Waterfowl Population Roosting and Nesting</b> Concern that noise from low-level overflight on flight paths to / and from Dare County Range affects local bird and waterfowl population roosting and nesting along coastal areas and at the Mattamuskeet National Wildlife Refuge.												
		For strategies that address this issue see Strategies BIO-1A, BIO-1B, BIO-1C, BIO-1D, BIO-1E, BIO-2A and BIO-2B.						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
NOI-4		<b>Noise During Week of Statewide Spring Testing in Schools</b> Concern that noise from low-level overflight has a detrimental impact on statewide Spring student testing in schools.												
NOI-4A	DCR Noise MAA	<b>Coordinate the Avoidance of Overflight of Schools during Testing Week</b> Coordinate with the Seymour Johnson AFB to avoid overflight of schools during the week of Spring testing in schools.	Mid-Term		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
NOI-5		<b>Compliance with Minimum Floor Altitudes in Military Airspace</b> Concern that aircraft fly below minimum flight altitudes in Military Training Routes and Restricted Areas which intensifies noise in communities of overflight.												
		For strategies that address this issue see Strategies COM-1A, COM-1C, COM-1D, COM-1E, COM-2E, COM-2F, COM-2I, COM-7B, and COM-9A.		<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 checked="" type="checkbox"/>
NOI-6		<b>Noise Impact on Tourism Development</b> Concern regarding noise impacts from low-level overflight on outdoor tourism development in northeast North Carolina communities.												
		For a strategy that addresses this issue see Strategy LU-4A.			<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"/>



Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
<b>ROADWAY CAPACITY (RC)</b>														
RC-1	<b>Insufficient Queuing Area at Main Gate on Berkeley Blvd.</b> Access to Seymour Johnson AFB during peak periods and reservist weekends causes traffic stacking on public roads. The primary gate located off South Berkeley Blvd. is the most widely used access point but has limited room for vehicle stacking. This lack of space can cause traffic to back up on South Berkeley Blvd. creating a safety hazard.													
RC-1A	Seymour Johnson AFB Coordination MCA	<b>Conduct Traffic Impact Analysis</b> North Carolina Department of Transportation should work with Seymour Johnson AFB, the City of Goldsboro, and Wayne County to develop a traffic impact analysis to quantify traffic stacking impact and Level of Service along Berkeley Blvd. including whether additional queuing is required and what options are available to alleviate vehicle stacking at the intersection.  <i>Primary Partner: North Carolina Department of Transportation</i>	Mid-Term	<input type="checkbox"/>								<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
RC-1B	Seymour Johnson AFB Coordination MCA	<b>Plan and Budget for Gate Improvements</b> Based on the conclusions of the Feasibility Study for Additional Vehicle Queuing Area at Main Gate in Strategy RC-1A, plan and budget for improvements that address the queuing issue within the Seymour Johnson AFB property including right-of-way acquisition for intersection improvements.	Long-Term										<input checked="" type="checkbox"/>	
RC-1C	Seymour Johnson AFB Coordination MCA	<b>Promote Carpool Programs</b> Seymour Johnson AFB should promote and incentivize park-and-ride and carpool programs to reduce the number of vehicles entering through the gates during heavy traffic periods.	Short-Term										<input checked="" type="checkbox"/>	

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
RC-1D	Seymour Johnson AFB Coordination MCA	<b>Promote Alternative Transportation</b> Work with the City of Goldsboro to reduce congestion utilizing alternative transportation efforts, such as public transit, biking, or walking.	Mid-Term	■									■	
RC-1E	Seymour Johnson AFB Coordination MCA	<b>Staggered Work Shift Starts</b> Seymour Johnson AFB should evaluate utilizing and optimizing staggered work shift start times to spread out the number of personnel entering and exiting the base and reduce vehicle volumes during peak traffic times.	Short-Term										■	
RC-1F	Seymour Johnson AFB Coordination MCA	<b>Bicycle Facility Enhancements</b> Seymour Johnson 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										■	
<b>SAFETY ZONES (SA)</b>														
SA-1	<b>Bird Hazard from Lagoons at end of Seymour Johnson AFB Runway 26</b> Lagoons for Goldsboro Waste Water Treatment Plant at end of Seymour Johnson AFB Runway 26 encourage habitats for birds. Bird activity in close proximity to the runway is an aviation safety hazard and increases the potential for bird aircraft strikes.													
SA-1A	Seymour Johnson AFB BASH MCA	<b>Fill in Lagoons</b> Seymour Johnson AFB in partnership with the USDA should work with the City of Goldsboro Water Reclamation Facility on the project to fill in and vegetate over	On-Going	□									□	■

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		the existing lagoons. <i>Other Primary Partner: US Department of Agriculture</i>												
SA-2		<b>Coordination for Bird/ Wildlife Aircraft Strike Hazard Mitigation Efforts</b> Need for coordinated multi-jurisdictional effort to address threats from bird / wildlife aircraft strikes surrounding Seymour Johnson AFB.												
SA-2A	Seymour Johnson AFB BASH MCA	<b>Increase Surrounding Landowner Awareness</b> Develop an educational outreach program for surrounding landowners on the impacts of BASH including activities that are bird / wildlife attractants.	Mid-Term	<input type="checkbox"/>								<input type="checkbox"/>	<input checked="" type="checkbox"/>	
SA-2B	Seymour Johnson AFB BASH MCA	<b>Develop and Distribute BASH Educational Materials</b> 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. Include education materials on the Seymour Johnson AFB and jurisdiction websites.	Short-Term	<input type="checkbox"/>								<input type="checkbox"/>	<input checked="" type="checkbox"/>	
SA-2C	Seymour Johnson AFB BASH MCA	<b>Decrease Bird and Wildlife Attractants Near Seymour Johnson AFB</b> Adopt Comprehensive Plan policies and land development regulations that decrease and mitigate bird and wildlife attractants in the vicinity of Seymour Johnson AFB and within flight paths. Consider land use and subdivision regulations that address bird attractant potential as part of project design and condition of approval. Consider regulations that preclude landfills and include methods for reducing bird and wildlife access to golf course water traps.	On-Going	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>		

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
SA-2D	Seymour Johnson AFB BASH MCA	<p><b>BASH Consideration in State and Federal Projects</b></p> <p>Projects sponsored by a State or Federal department or agency should incorporate required consultation with Seymour Johnson AFB on the review and mitigation of any bird and wildlife attractant features in projects.</p> <p><i>Other Partners: State and Federal departments and agencies</i></p>	On-Going										<input type="checkbox"/>	<input type="checkbox"/>
SA-3	Incompatible Development Located in Seymour Johnson AFB Safety Zones Incompatible uses in the Safety Zones extend into City of Goldsboro and Wayne County creating a safety concern.													
SA-3A	Seymour Johnson AFB Safety MCA	<p><b>Nonconforming Uses in Accident Potential Zones</b></p> <p>Revise the regulations pertaining to land uses within Accident Potential Zones, that nonconforming uses in the Accident Potential Zones cannot be reconstructed if substantially damaged or destroyed.</p>	Short-Term	<input type="checkbox"/>								<input type="checkbox"/>		
		For other strategies that address this issue see Strategies LU-1C and LU-1D.		<input type="checkbox"/>								<input type="checkbox"/>		
SA-4	BASH Concerns Over Pocosin Lakes National Wildlife Refuge: Pungo Unit from November Through March The Pocosin Lakes National Wildlife Refuge: Pungo Unit receives 80 percent of the eastern population of Tundra Swans during the winter transcontinental migration from the Arctic Tundra with a total wintering bird population of over 100,000. Bird activity in close proximity to low-level flight routes is an aviation safety hazard and increases the potential for bird aircraft strikes.													
		For Strategies that address this issue see Strategies BIO-1C, BIO-1E, BIO-2A, BIO-2B, BIO-2C, and SA-2D.					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>



Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
<b>VERTICAL OBSTRUCTIONS (VO)</b>														
VO-1	<b>Incompatible Development Located in the Imaginary Surfaces at Seymour Johnson AFB</b> Natural and manmade structures pose a potential safety concern for flight operations within Department of Defense established imaginary surfaces associated with Seymour Johnson AFB Runway 8/26.													
VO-1A	Seymour Johnson AFB Imaginary Surfaces MCA	<b>Develop a 3-Dimensional Imaginary Surfaces Model</b> The City of Goldsboro and Wayne County with the assistance of Seymour Johnson AFB should develop a digital and printed 3D model of existing height regulations compared to allowable heights for the glide slope of the Approach / Departure Surface. This tool will assist the jurisdictions in considering amendments to their zoning regulations to further enhance military compatibility and for determining whether heights of proposed structures obstruct the navigable airspace during the review of development applications. <i>Other Partner: Federal Aviation Administration</i>	Mid-Term	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		For another strategy that addresses this issue see Strategy LU-3A.		<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>		
VO-2	<b>Height Regulations Surrounding Seymour Johnson AFB</b> Need to enhance the City of Goldsboro and Wayne County regulations for heights of structures in imaginary surfaces. Regulations only reference the AICUZ Study or FAA Part 77, but lack clarity on how these provisions are applied.													
VO-2A	Seymour Johnson AFB Imaginary Surfaces MCA	<b>Develop a "Red, Yellow, Green" Map for Vertical Obstruction Concerns</b> A "Red, Yellow, Green" (RYG) Map should be developed and utilized, in consultation with Seymour Johnson AFB, that identifies locations throughout the Vertical Obstruction MCA where tall structures (with defined heights) are	Mid-Term	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
		permissible, permissible with height restrictions, and prohibited to protect public safety and ensure compatibility. This should be done in conjunction with the mapping recommended in Strategy ED-1D.												
VO-2B	Seymour Johnson AFB Imaginary Surfaces MCA	<b>Ensure Imaginary Surface / FAA Part 77 Compliance</b> For all structures greater than 199 ft. tall, require a determination Finding of No Significant Impact from the Federal Aviation Administration to be submitted with the development application.	On-Going	■								■		
		For other strategies that address this issue see Strategies COM-8A, ED-1D, ED-1E, LU-3A, VO-1A, VO-2A, and VO-2B.		■	■		□	■	■	■	■	■	□	■
VO-3	<b>High-Tech Agricultural Equipment</b> Many farms are moving towards technologically advanced equipment to improve efficiency of farming which includes the use of aerial applicators (manned aircraft and drones) that could potentially extend into airspace of low-level Military Training Routes.													
		For strategies that address this issue see Strategies COM-9A, LAS-1A, LAS-6A, LAS-7A.			■		■	■	■	■	■		■	■
VO-4	<b>Future Cell Towers</b> Additional cell towers are needed to provide coverage in northeast North Carolina jurisdictions which could conflict with military training operational areas.													
		For a strategy that address this issue see Strategy COM-8A.		■	■			■	■		■	■		

Issue / Strategy ID	Geographic Area	Issue / Strategy	Timeframe	City of Goldsboro	City of Washington	Beaufort County	Bertie County	Dare County	Hyde County	Tyrrell County	Washington County	Wayne County	Seymour Johnson AFB	Other
<b>VIBRATION (V)</b>														
V-1	<b>Vibration Impacts from Low-Level Flight Activity</b> Vibration from low-level fixed-wing and rotary-wing aircraft overflight in Restricted Areas, Military Operating Areas and Military Training Routes has the ability to cause physical property damage.													
V-1A	Seymour Johnson AFB Noise MCA / DCR Noise MAA	<b>Educate the Public on Cause of Vibrations</b> Seymour Johnson AFB should work to inform the public on the other branches of the military that conduct operations within the JLUS Study Area and the sources of vibrations such as types of aircraft and maneuvers. This information should be part of the Seymour Johnson AFB Public Outreach Campaign in Strategy COM-1A and part of the public education recommendations in Strategies COM-1D, COM-1E, COM-2E, COM-7A, COM-7B, and Com-9A. When vibration complaints are lodged with Seymour Johnson AFB, the installation should identify the source and provide the appropriate contact information to the complainant if it is not Seymour Johnson AFB. <i>Other Primary Partners: Other DOD services / installations</i>	Mid-Term										■	■
		For additional strategies that address this issue see Strategies LU-2C, NOI-1B, and NOI-1C.		■								■	■	■