



**Public Release - 2010 AICUZ Study**  
**Air Installations Compatible Use Zones (AICUZ) Study**  
**NAS Pensacola and NOLF Saufley**  
**Pensacola, FL**  
**May 2011**



# NAS Pensacola and NOLF Saufley





# Mission of NAS Pensacola and History of AICUZ Study Efforts

## NAS Pensacola

- First commissioned in 1914
- Mission:
  - Primary installation providing aviation training to the Navy
  - Home to TRAWING 6 and the Navy Flight Demonstration Squadron, the Blue Angles
- 1976 – original AICUZ approved
- 1990 – updated noise contours and APZs

## NOLF Saufley

- First commissioned in 1943 as a Naval Auxiliary Air Station
- Mission:
  - NOLF used by NAS Pensacola and NAS Whiting Field for T-6 practice landings and take offs
  - Also used by NAS Whiting Fields' TH-57 for touch-and-go operations
- 1986 – included in the NAS Whiting Field AICUZ
- 2000 – updated noise contours

NAS Pensacola and NOLF Saufley were included in the 2003 Escambia County Joint Land Use Study



# Economic Impact Arising from NAS Pensacola

- Workforce of over 23,000 military & civilian personnel
- The DoD is the largest economic engine in the greater Pensacola area, with more than \$5.1B in salary and wages produced



# AICUZ Program Goals

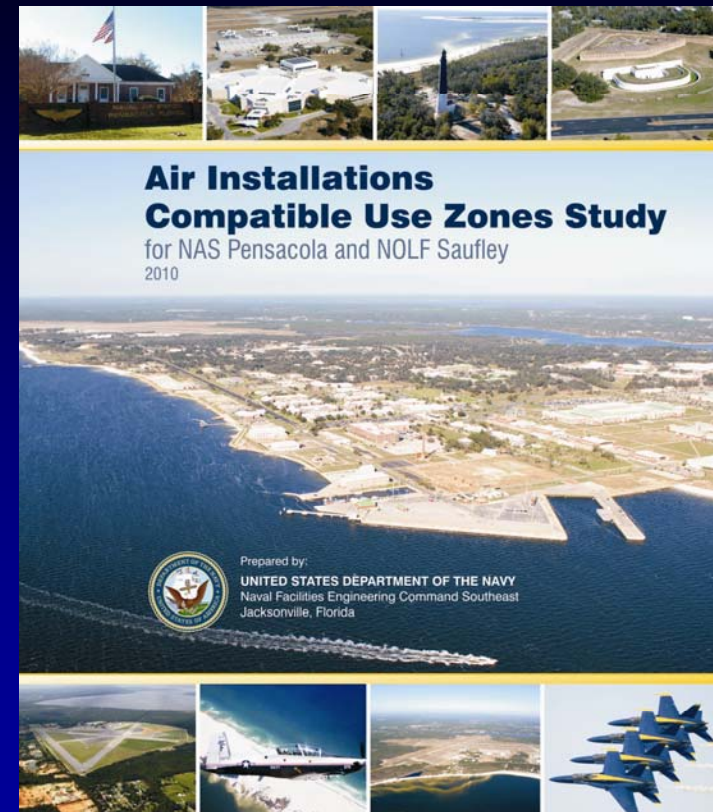
- **Protect the health, safety and welfare of those living near the air station**
- **Ensure the continuing flight mission of the installation**
- **AICUZ study**
  - Is non-binding
  - Provides recommendations to communities for compatible development





# The AICUZ Program

- **AICUZ Studies are prepared for all Naval and Marine Corps air stations**
- **Study Identifies:**
  - Noise Zones
  - Accident Potential Zones (APZs)
  - Presents guidelines for compatible development





# Noise Contours

- Sound generation
- Noise is any unwanted sound
- Noise is in the ear of the beholder
- Sound is measured in decibels





# Perception of Noise



- Sound level
- Frequency of occurrence
- Duration
- Time of day





# Day-Night Average Sound Level (DNL)

- **Weighted average of noise energy**
- **Developed for the EPA**
- **Incorporates**
  - Loudness
  - Total noise energy
  - Time of day or night





# AICUZ Study Overview

## NAS Pensacola and NOLF Saufley, Aircraft Noise

- **Noise Contours Modeled Using Projected Operations (2012)**
  - NOISEMAP, fixed-wing aircraft
  - Updated Contours developed for NAS Pensacola and NOLF Saufley



- **Key Inputs and Changes Since Previous Noise Analysis:**
  - T-6 replaced T-34 and the T-45 replaced the T-2
  - Increased T-6 Operations
  - Transient F-35 aircraft

# AICUZ Study Overview

## NAS Pensacola, 2010 Noise Gradient

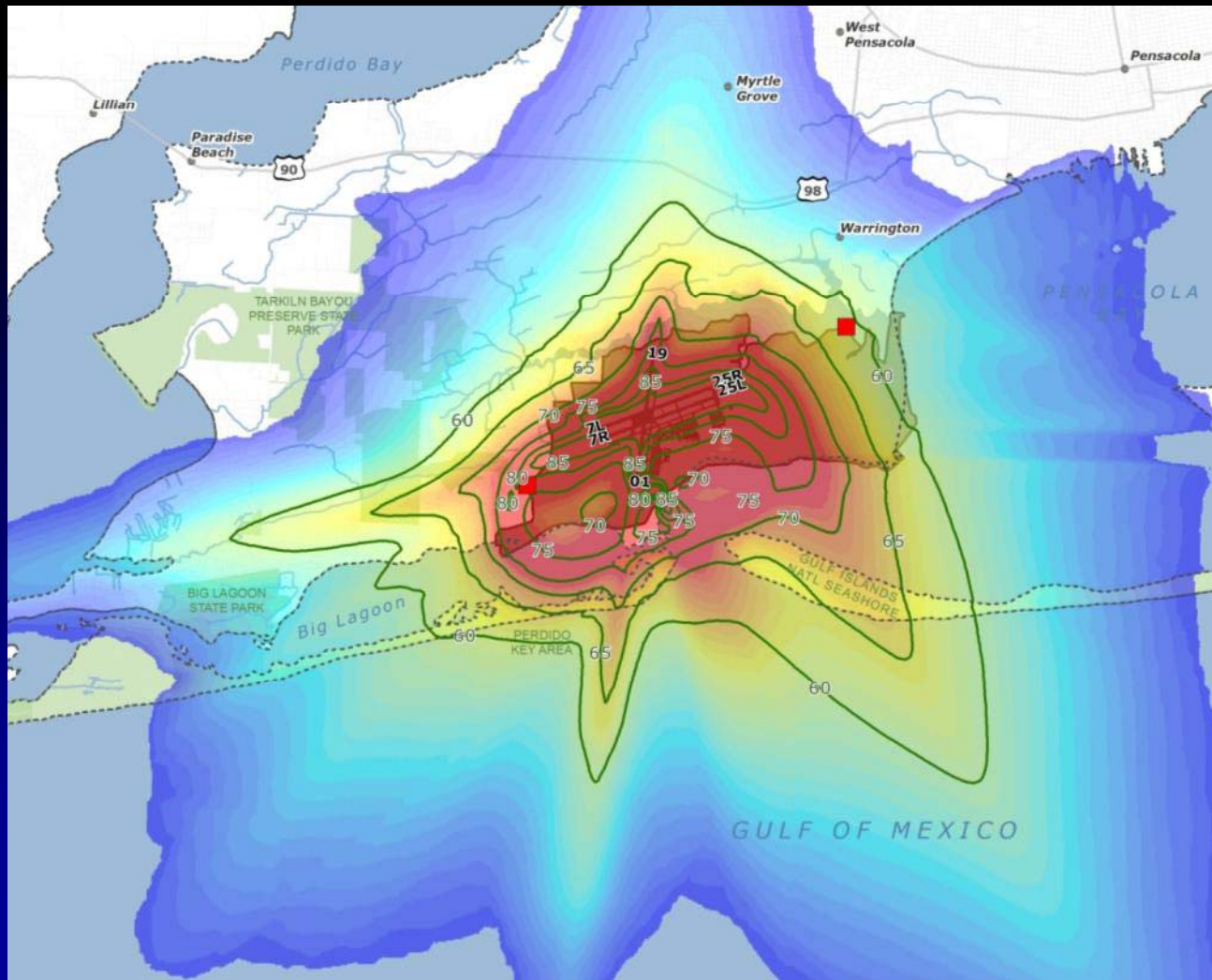
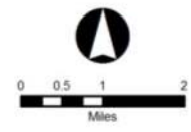


Figure 4-2  
2010 AICUZ  
Noise Gradients  
NAS Pensacola

**Legend**

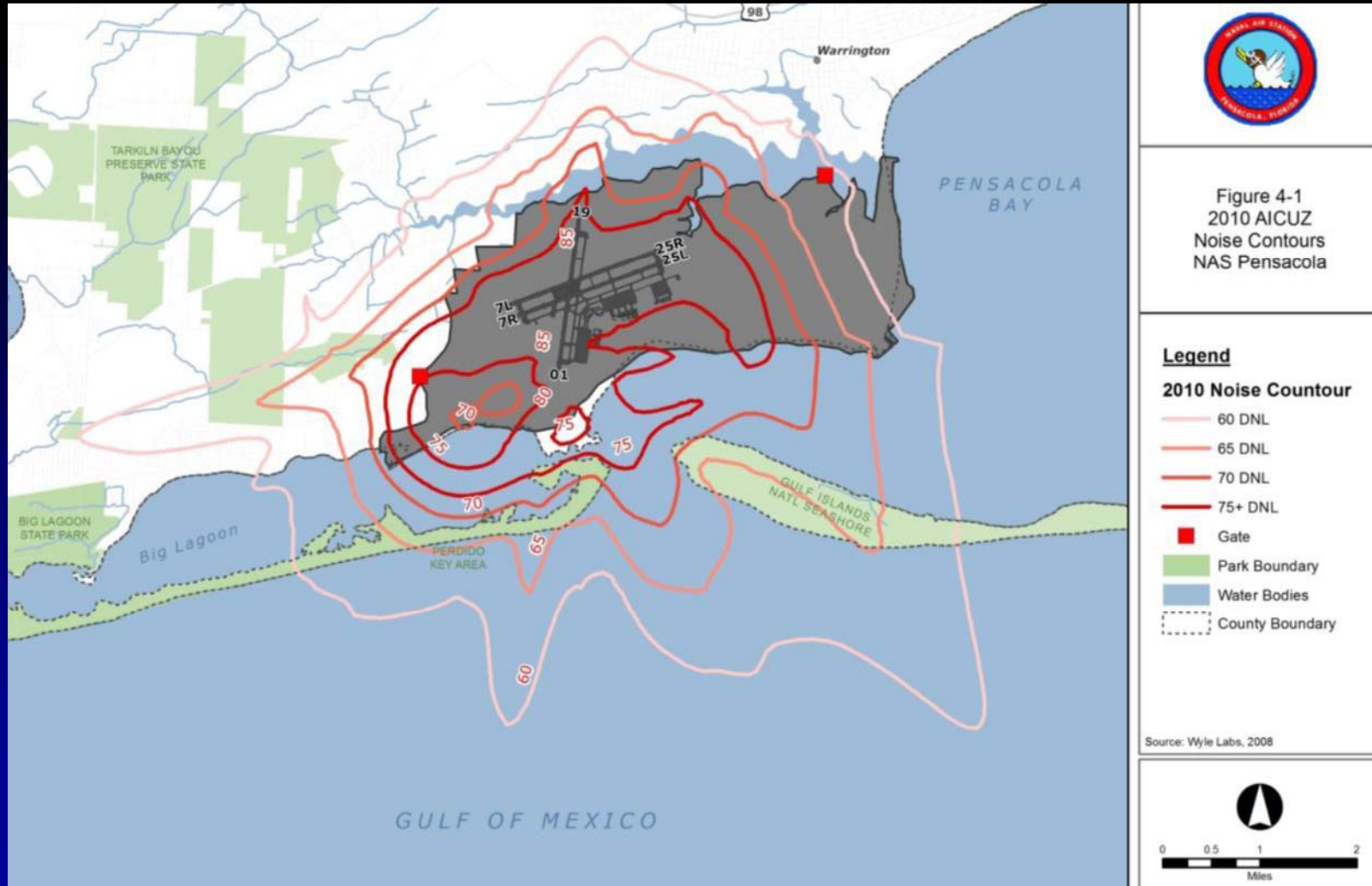
- Gate
  - 2010 Noise Contour
  - Park Boundary
  - County Boundary
- Noise Value**
- 
- > 85 DNL
  - 45 DNL

Source: Wyle Labs, 2008



# AICUZ Study Overview

## NAS Pensacola 2010 Noise Contours





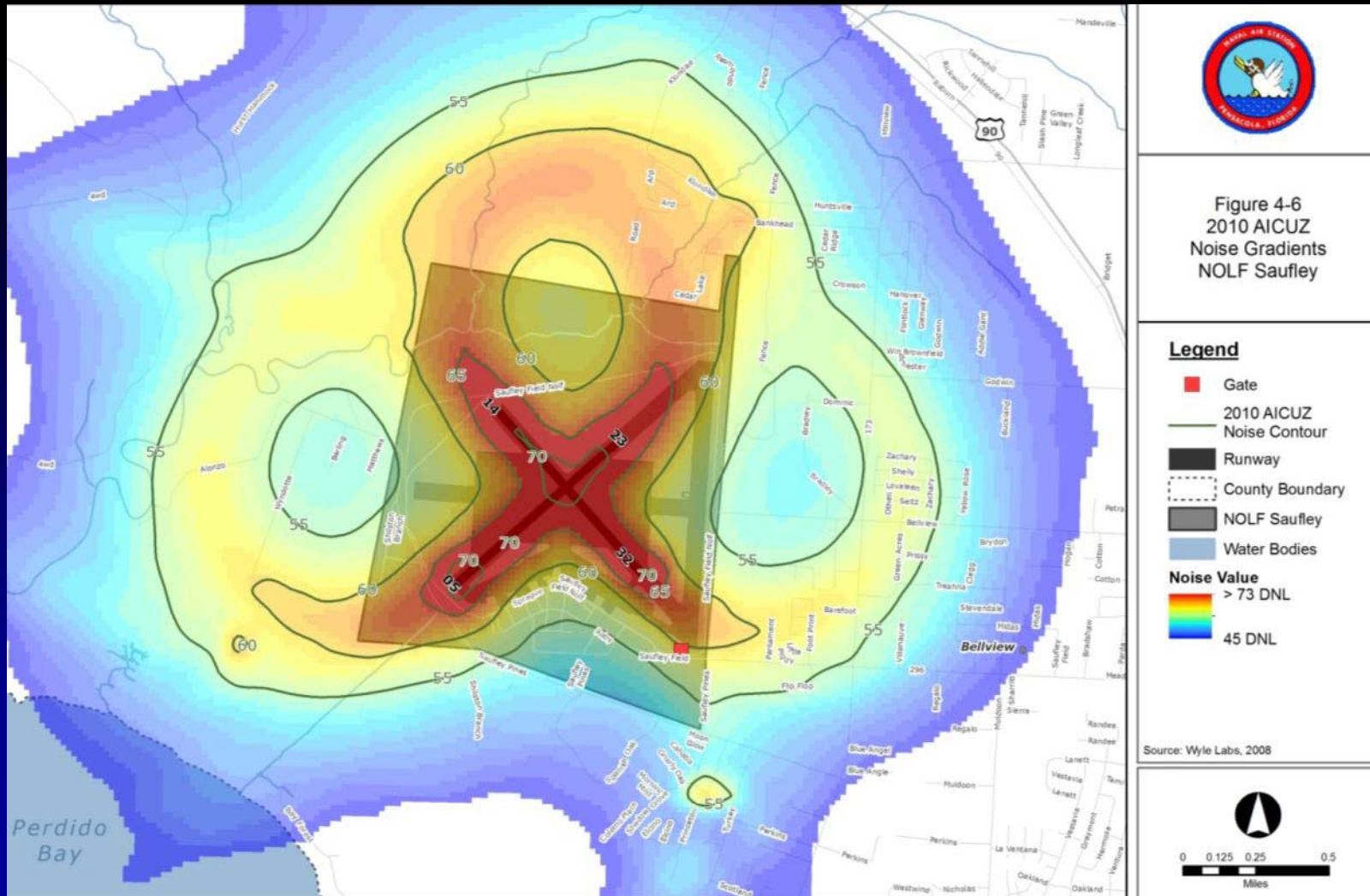
# AICUZ Study Overview

## NAS Pensacola, Comparison of 1980 (2003 JLUS) 2010 Noise Contours



# AICUZ Study Overview

## NOLF Saufley, 2010 Noise Gradient



# AICUZ Study Overview

## NOLF Saufley, 2010 Noise Contours

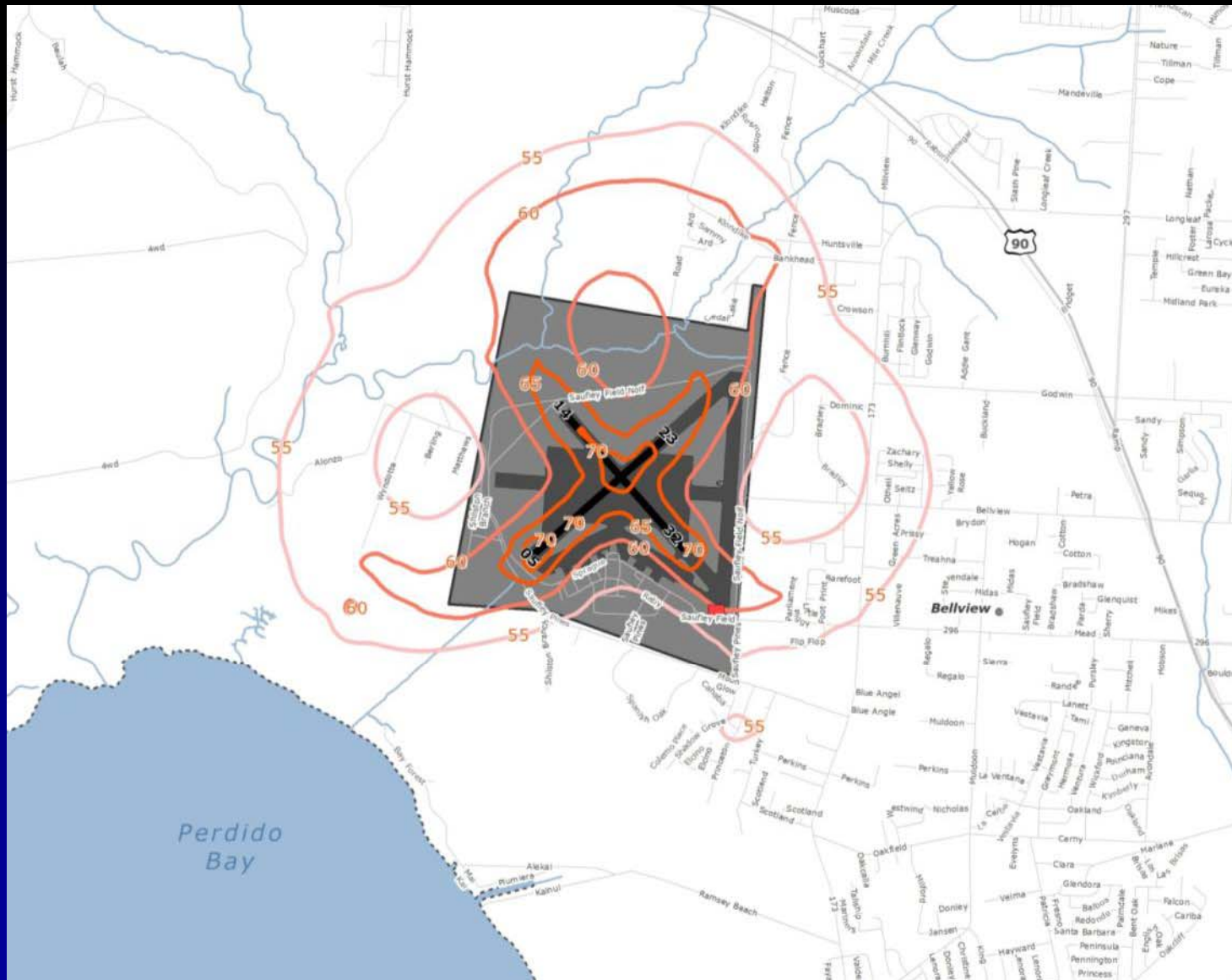


Figure 4-5  
2010 AICUZ  
Noise Contours  
NOLF Saufley

### Legend

- Gate
- 2010 AICUZ Noise Contour**
- 55 DNL
- 60 DNL
- 65+ DNL
- Runway
- County Boundary
- NOLF Saufley
- Water Bodies

Source: Wyle Labs, 2008



# AICUZ Study Overview

## NOLF Saufley, Comparison of 2000 and 2010 Noise Contours



Figure 4-7  
Comparison of 2003  
JLUS and 2010  
AICUZ Noise Contours  
NOLF Saufley

### Legend

- Gate
- 2010 AICUZ Noise Contour**
  - 55 DNL
  - 60 DNL
  - 65+ DNL
- 2003 JLUS Noise Contour
- Runway
- NOLF Saufley
- Water Bodies
- County Boundary

Source: Wyle Labs, 2008







# Accident Potential Zones

- Areas where accidents most likely to occur *IF* they occur
- *NOT* a predictor of accidents
- APZs provide planners a tool to use in determining compatible land use



# AICUZ Study Overview

## NAS Pensacola 2010 APZs

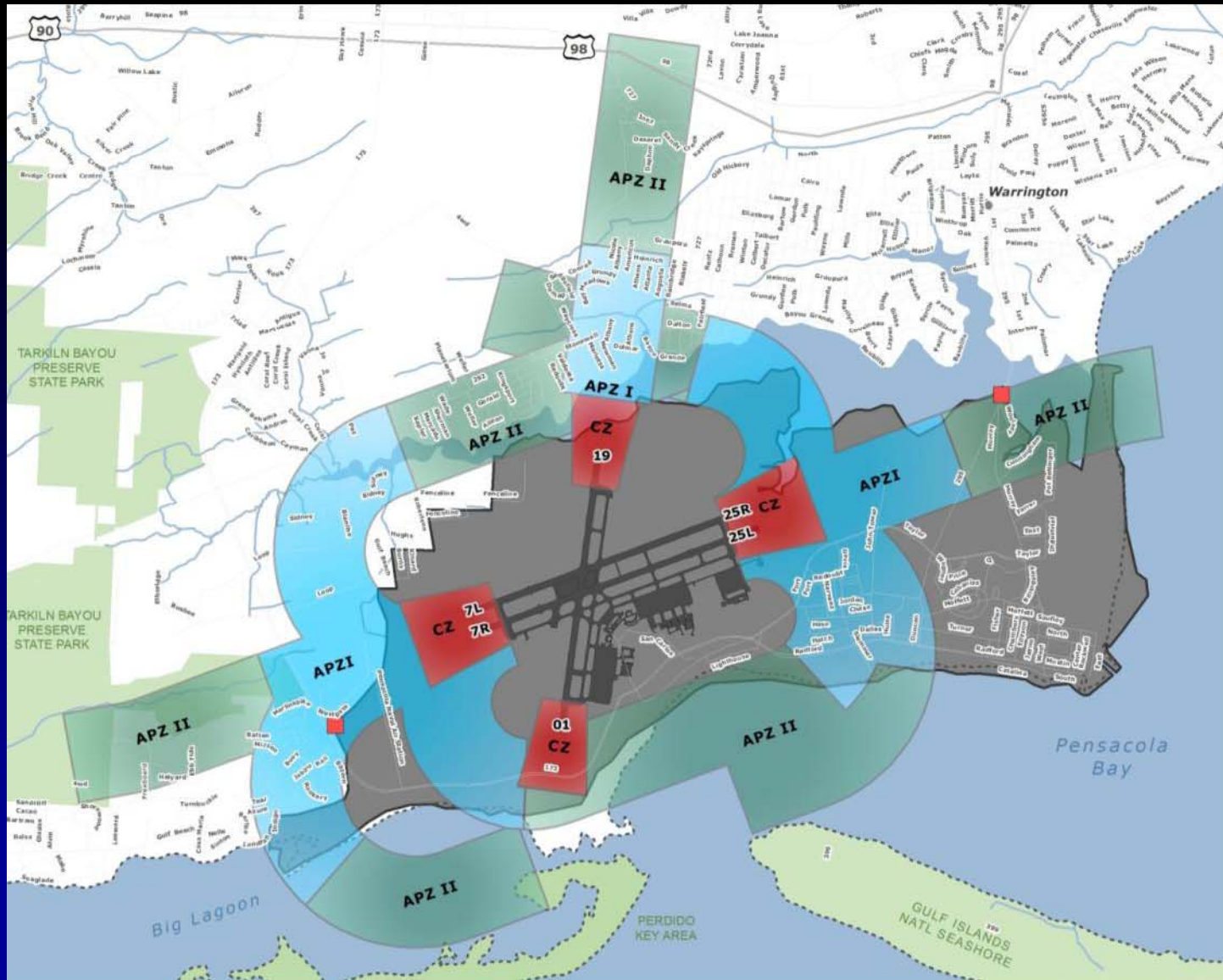


Figure 5-3  
2010 AICUZ APZs  
NAS Pensacola

### Legend

- Gate
- Accident Potential Zone**
- Clear Zone
- APZ I
- APZ II
- County Boundary
- Runway
- NAS Pensacola
- Park Boundary
- Water Bodies

Source: Wyle Labs, 2008



# AICUZ Study Overview

## NAS Pensacola, Comparison of 1980 (2003 JLUS) and 2010 APZs

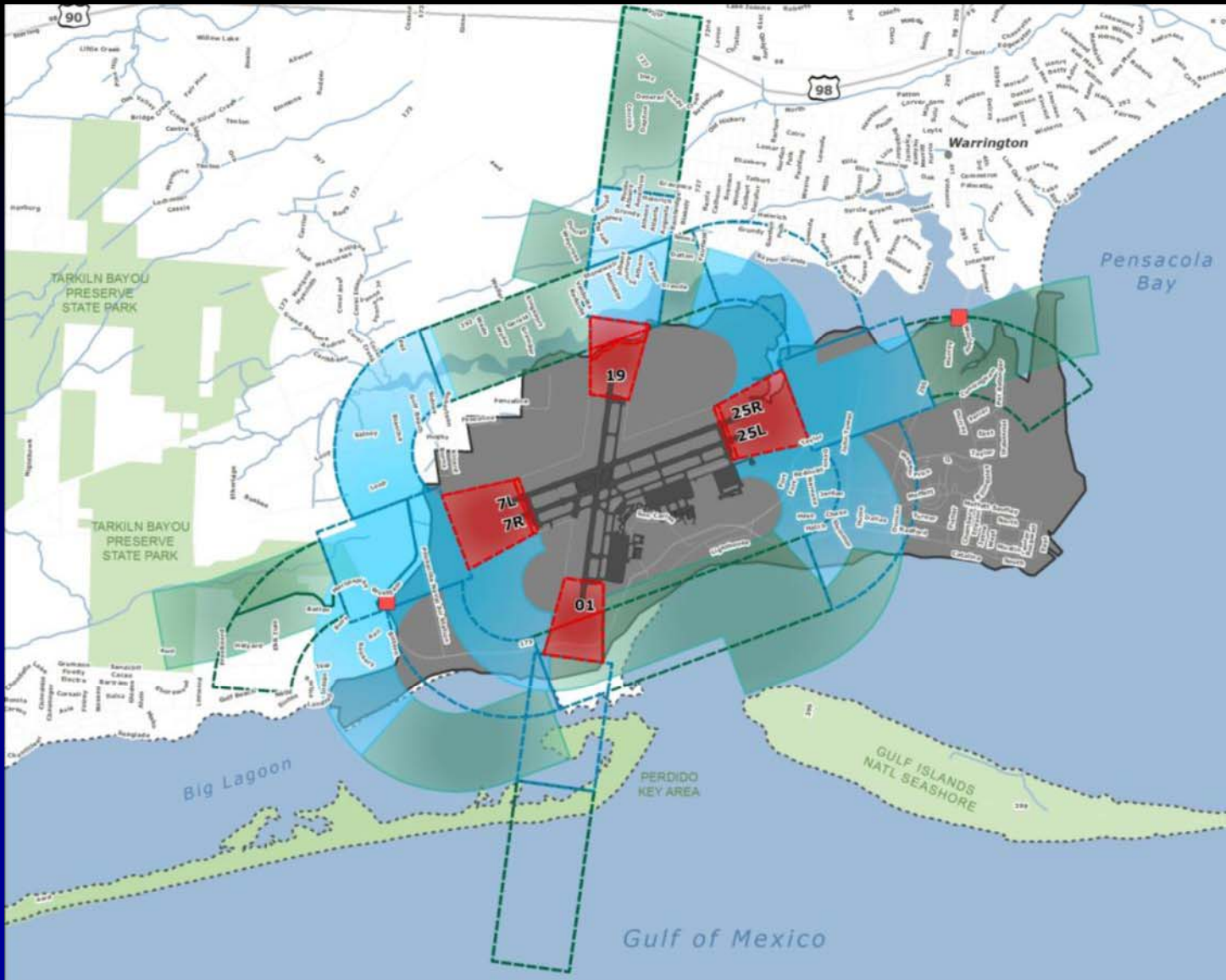


Figure 5-4  
Comparison of 1980  
(2003 JLUS) and  
2010 AICUZ APZs  
NAS Pensacola

### Legend

- Gate
- 1980 (2003 JLUS) APZ
  - APZ I
  - APZ II
  - Clear Zone
- 2010 AICUZ APZ
  - Clear Zone
  - APZ I
  - APZ II
  - Runway
  - NAS Pensacola
  - County Boundary
  - Park Boundary
  - Water Bodies

Source: Wyle Labs, 2008



0 0.25 0.5 1  
Miles

# AICUZ Study Overview

## NOLF Saufley 2010 APZs

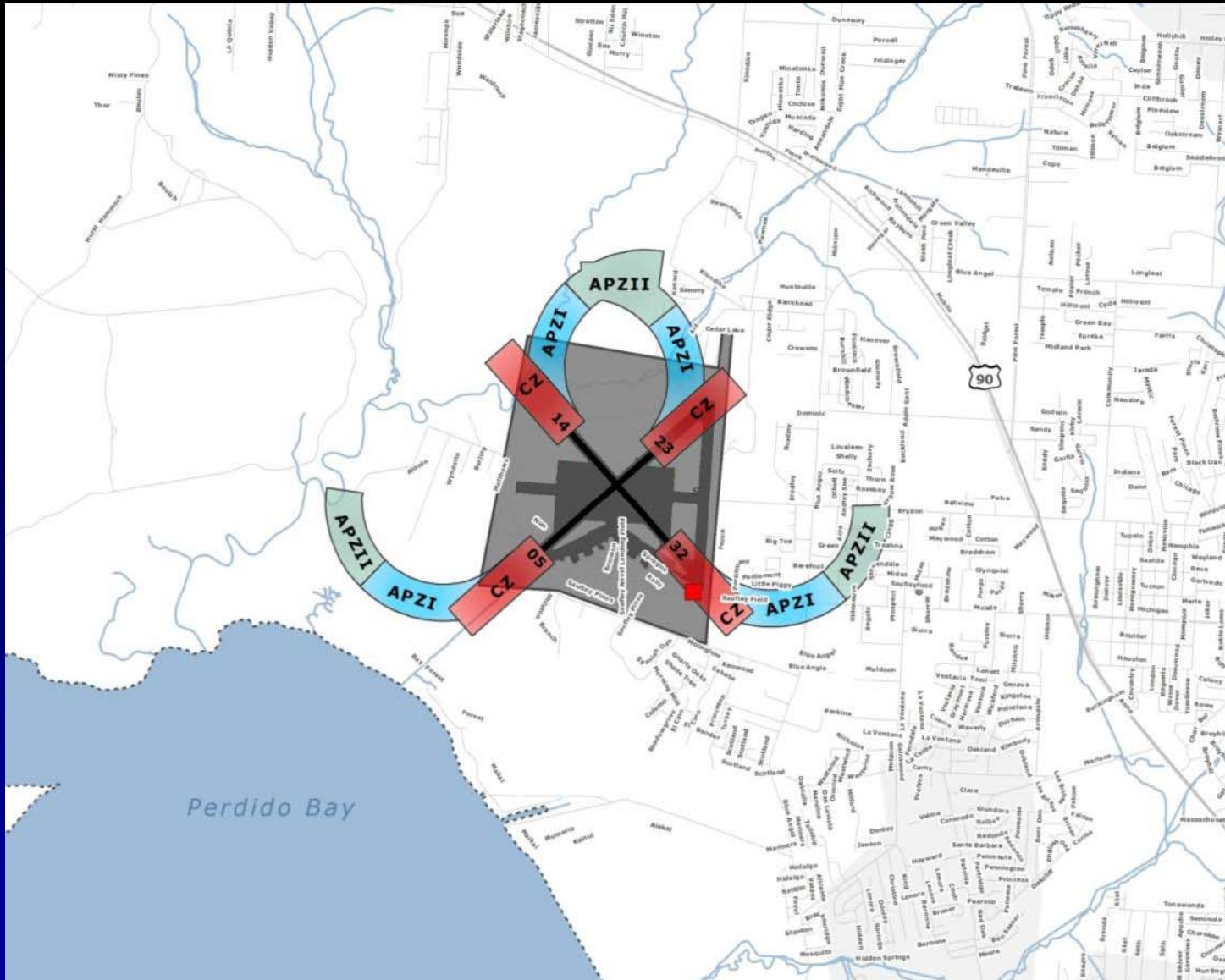


Figure 5-5  
2010 AICUZ APZs  
NOLF Saufley

### Legend

- Gate
- Runway
- NOLF Saufley
- APZ Zone**
- Clear Zone
- APZ I
- APZ II
- County Boundary
- Water Bodies

Source: Wyle Labs, 2008



# AICUZ Study Overview

## NOLF Saufley, Comparison of 1980 (2003 JLUS) and 2010 APZs

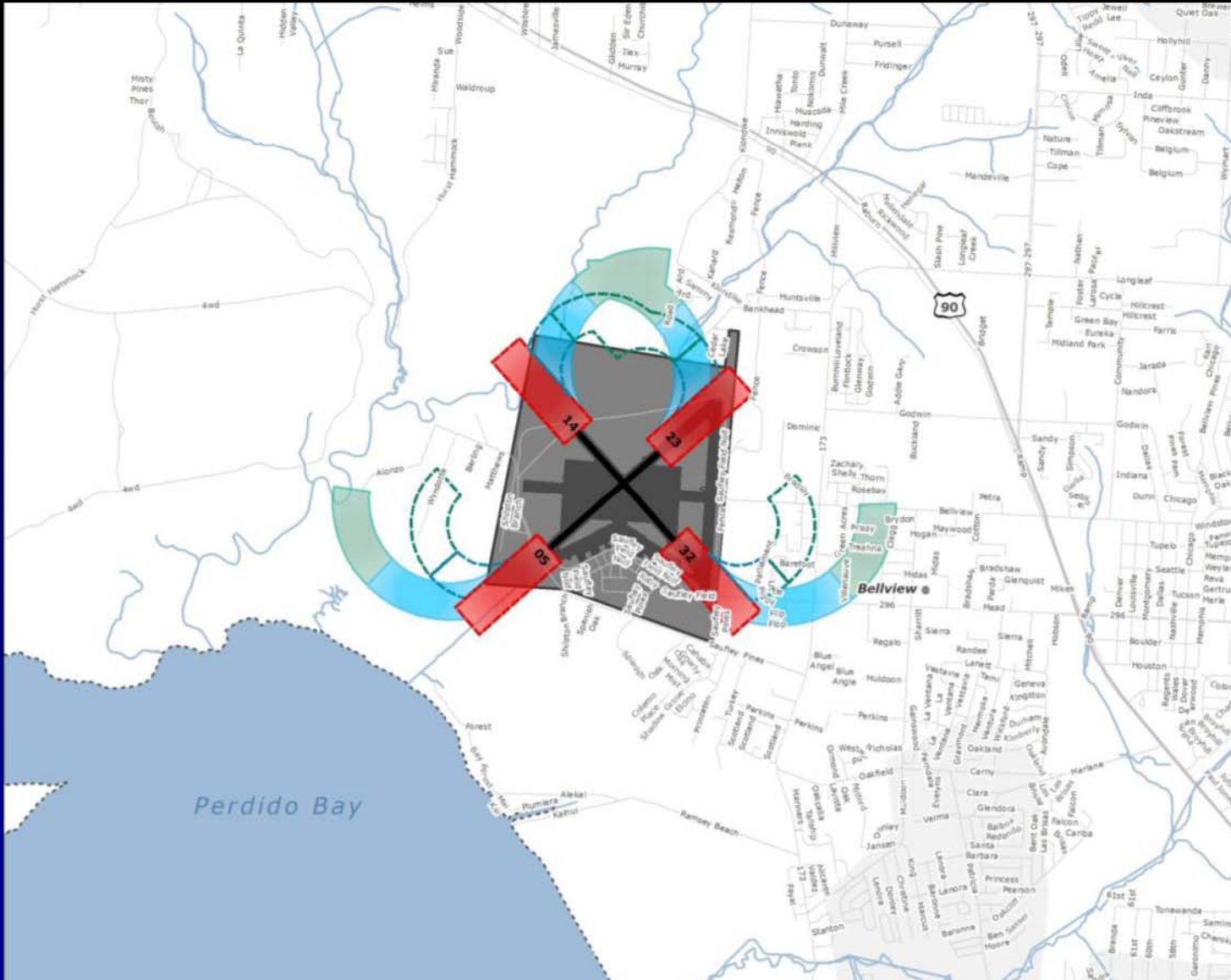


Figure 5-6  
Comparison of 2003  
JLUS and 2010  
AICUZ APZs  
NOLF Saufley

### Legend

#### 2003 JLUS APZ

- APZ I
- APZ II
- Clear Zone

#### 2010 AICUZ APZ

- Clear Zone
- APZ I
- APZ II
- County Boundary
- Runway
- NOLF Saufley
- Water Bodies

Source: Wyle Labs, 2008





# AICUZ Study Overview

## Aircraft Safety

### Other Issues Addressed In Safety Analysis:

- Height of Structures
- Bird/Animal Strike Hazard (BASH)
- Electromagnetic Interference
- Lighting, Smoke, Dust, and Steam





# AICUZ Study Overview

## Generalized Compatibility Guidelines

### General Land use Compatibility Recommendations

	Land Use Compatibility Noise Zone (DNL)			Land Use Compatibility with APZs		
	Noise Zone 1 (<55 - 64)	Noise Zone 2 (65 - 74)	Noise Zone 3 (75 - >80)	Clear Zone	APZ I	APZ II
Single-family residential	Y	N	N	N	N	YR
Multi-family residential	Y	N	N	N	N	N
Assembly areas and auditoriums	Y	N	N	N	N	N
Schools	Y	YR	N	N	N	N
Office and retail	Y	YR	YR	N	YR	YR
Manufacturing/Industrial	Y	Y	N	N	N	Y
Outdoor parks and recreation	Y	Y	N	N	YR	YR

**Key:**

Y (Yes)= Land use and related structures compatible without restrictions.

N (No) = Land use and related structures are not compatible and should be prohibited.

YR (Yes-Restrictions) = Land use and related structures with restrictions. Specific restrictions are identified in OPNAVINST 11010.36C.



# AICUZ Schedule

- **Brief City/County Officials**      **Week of May 9, 2011**
- **Community Open House**      **May 10, 2011 @1630**
- **Individual Briefings  
with Community Groups**      **TBD**
- **Work with Escambia County  
on Updating JLUS**      **TBD**
- **Distribute AICUZ Study  
and outreach tools**      **Ongoing**





# The Way Ahead – AICUZ Adoption

- Work with Escambia County to adopt/incorporate AICUZ into the local zoning ordinances and land use.
- Initiate Joint Land Use Study update effort: Amendment to 2003 JLUS maps to reflect 2010 AICUZ noise contours and APZs





# Navy Responsibilities

## We want to be a good neighbor

- Develop and update AICUZ studies
- Make available to the public AICUZ maps
- Make land use recommendations as appropriate
- Monitor operations and noise complaints and take action as needed





# Community Responsibilities

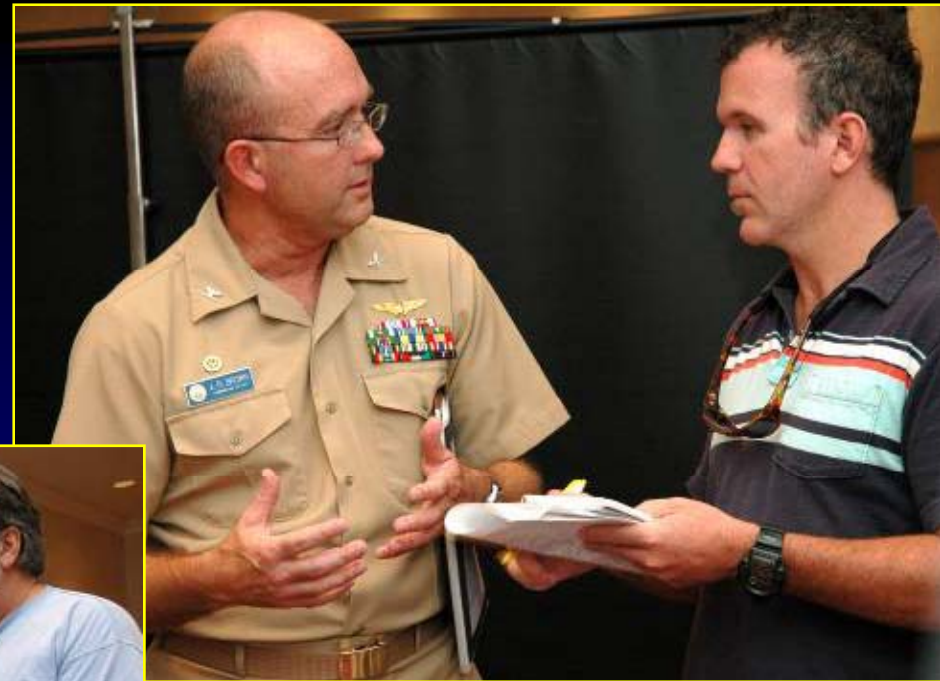
- **Work with the military to promote compatible development**
- **Promote disclosure for military impacts in real estate**
- **Incorporate sound insulation guidelines in building codes**





# Key to Success

- Teamwork
- Open and frequent communication
- Partnership





## **For More Information**

### **AICUZ:**

**NAS Pensacola Deputy Air Operations Officer at  
(850) 452-4231 extension 3114**

### **Noise Concerns:**

**NAS Pensacola  
Operations Duty Office  
(850) 452-2431**



**Questions ?**