SECTION 16 - EGLIN AIR FORCE BASE

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16.1 INTRODUCTION

Eglin AFB, shown in *Figure 16-1*, is one of 19 component installations that make up the Department of Defense (DoD) Major Range Test Facility Base (MRTFB). It is situated among three counties—Santa Rosa, Okaloosa, and Walton. Eglin's primary function is to support research, development, test, and evaluation (RDT&E) of conventional weapons and electronic systems. It also provides support for joint training of operational units. Eglin AFB is composed of 724 square miles (sq. mi.) of land with 36 specific test areas, and 124,642 sq. mi. of the Eglin Gulf Test and Training Range (EGTTR), which extends south to the Florida Keys. Included as part of Eglin are 19 miles of barrier island coastline on Santa Rosa Island, of which 12 miles are closed to the public.

Eglin AFB has a total of 127,868 sq. mi. of charted airspace, of which 2.5 percent (3,226 sq. mi.) is over land and 97.5 percent (124,642 sq. mi.) is over water in what is referred to as the EGTTR. Eglin exercises daily air traffic control over a total of 26,901 square nautical miles (sq. NM), of which 9 percent (2,479 sq. NM) is over land and 91 percent (24,422 sq. NM) is over water. Eglin's charted airspace is not only above Eglin AFB land, but also extends to the east, south, and north into Alabama as shown in *Figure 16-2.*

This airspace is comprised of both restricted and warning airspace, in addition to military operating area (MOA) airspace. The airspace over the EGTTR is under the authority of the Federal Aviation Administration (FAA), but is scheduled and controlled by Eglin AFB. The EGTTR is composed of both DoD-controlled airspace and FAA-controlled airspace available on request with an established Letter of Agreement. The EGTTR is the DoD's largest water test range in the continental United States. Eglin AFB also contains the only supersonic overland test range east of the Mississippi River.

Eglin AFB is composed of many areas:

- Eglin Reservation/Range (test areas, interstitial areas, airspace, and the EGTTR)
- Eglin Main Base
- Hurlburt Field (home of the U.S. Air Force Special Operations Command)
- Duke Field (site of U.S. Air Force Reserve)
- Choctaw Field (supporting Naval aviator and Unmanned Aerial Vehicle [UAV] training)
- Site C-6 (site of Air Force Space Command Phased Array Space Surveillance Radar)
- Camp Rudder (one site of the U.S. Army Ranger School)
- Cape San Blas
- U.S. Coast Guard Station Destin

16.2 ISSUES

Based on information provided by Eglin AFB and meetings and discussions with the Joint Land Use Technical Advisory Group (TAG) which includes representatives from Eglin AFB and the counties and cities in the tri-county area, issues were identified with respect to encroachment around Eglin AFB. During the May 8, 2008 TAG meeting and the June 18, 2008 Public Open House, the issues were identified and explained. *Appendix D—Eglin JLUS Public Presentations* provides copies of this information plus all public presentations included with this study.

The following are the issues identified for Eglin AFB with respect to joint land use planning and encroachments:

- Impulse Noise Extending Beyond Eglin Boundary
- Radio Frequency Interference With Electronic Transmissions
- Low Level Helicopter Training Areas
- Lighting Encroachment Into Night Training Areas and Airspace
- Height of Objects
- Incompatible Development in Areas Influenced by Military Activities (Clear Zones, Accident Potential Zones (APZs), High Noise Areas, Low Level Approach Zones, and Cruise Missile Corridors)
- Additional Boat Traffic in Controlled Firing Areas
- Highest and Best Use Potential of US Government Owned Lands
- Air Traffic Control

Each issue listed above is described further in the following

Figure 16-2: Eglin AFB Water Range and Airspace

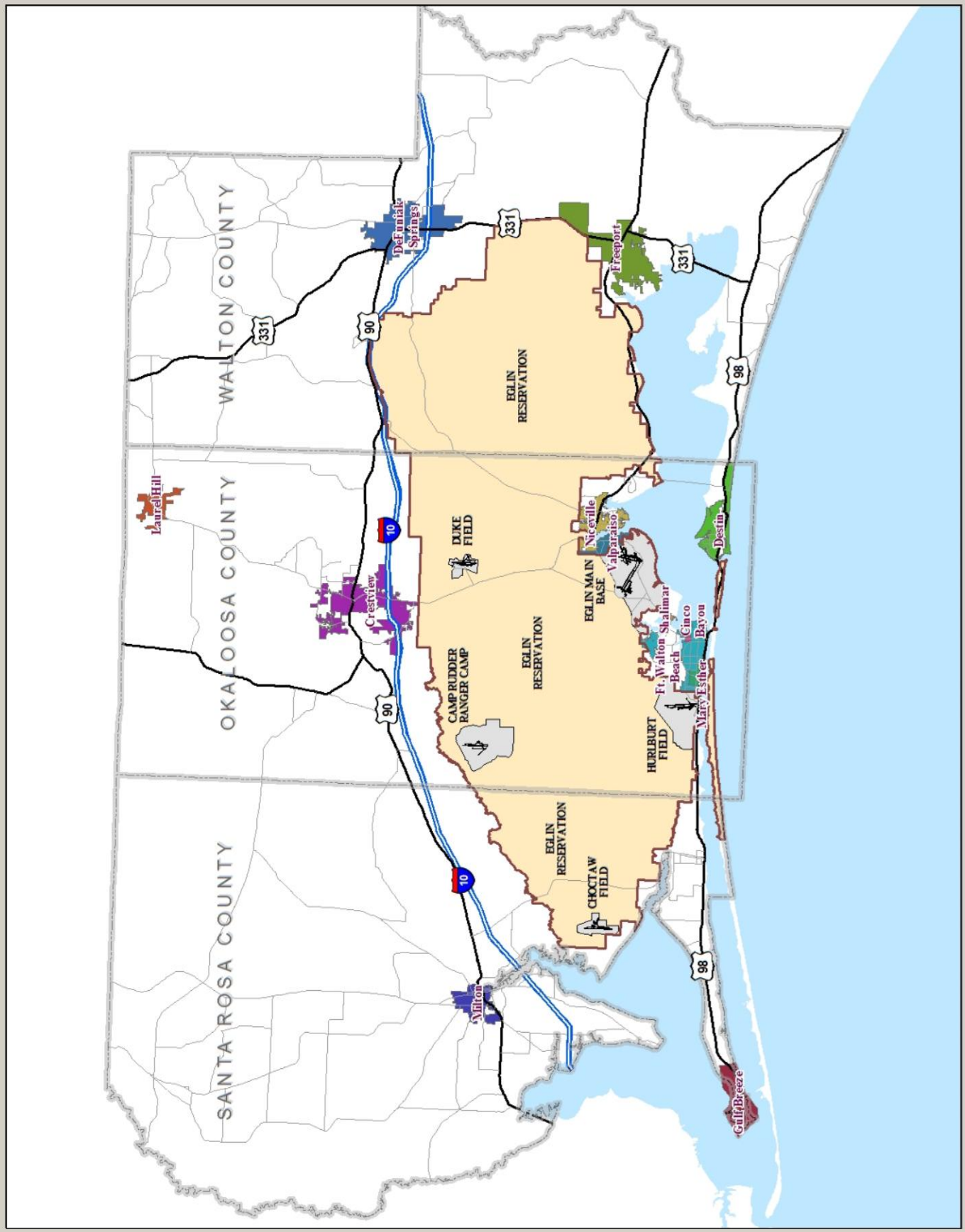

Figure 16-1: Eglin AFB Location Map

subsections with descriptions and graphics provided.

16.2.1 Impulse Noise

Some areas on Eglin AFB and beyond the Eglin Reservation boundary are subject to increased levels of impulse, or explosive, noise according to the Eglin Range Air Installation Compatible Use Zone (RAICUZ). There are three impulse noise intensity levels represented as *Low Intensity—Infrequent Impulse Noise, Moderate Intensity—Less Frequent Impulse Noise,* and *Higher Intensity—Greater Frequency Impulse Noise*. The coverage areas for each Impulse Noise level is shown in *Figure 16-3*. Each noise intensity level indicates the potential for humans to notice the noise and/or be annoyed.

16.2.2 Radio Frequency Interference

Radio frequency is an additional element related to land use compatibility according to the RAICUZ. Certain Eglin frequency bands are being encroached upon by devices that are either sloppy in their frequency control (e.g., cordless phones, cell phones, radio stations, cell towers) or that leak frequency emissions even if they are not designed to transmit (e.g., radar detectors). Certain frequencies within the radio frequency spectrum are of more concern than others, since the frequencies can interfere with the safety of test missions. If a test item or aircraft is lost due to frequency issues, safety can be compromised beyond what is acceptable. Training missions tend to use the very high frequency (VHF) and ultrahigh frequency (UHF) bandwidths, which currently are dedicated military frequencies.

The bandwidth between 5.2 to 5.9 GHz contains Eglin's primary frequencies used to track test items using radio location, radar tracking, and beacon/transponder tracking. The radars used to track test items are extremely sensitive and can detect even the smallest emitter, for example a cordless phone being used on the third floor of a condominium. Devices that interfere with these frequencies include wireless LAN, microwave, and cordless devices. Since encroachment on these frequencies interferes with the safety of test missions, protection is a priority and must be proactive rather than reactive as interferences occur.

Generally, the interference occurs within a 50-mile area extending from the Eglin boundary. To protect against this interference, a buffer of 50 miles within which all devices or systems operating within the 5.4- to 5.9-GHz bandwidth would be prohibited is recommended in the RAICUZ.

Recent encroachment within the 5.4- to 5.9-GHz bandwidth include a developer installing wireless LAN in a high-rise condominium along the coastline and a local county installing wireless LAN and microwave to communicate between coastal and inland offices.

16.2.3 Low Level Helicopter and Tiltrotor Training

Training helicopters (TH-57) from NAS Whiting Field and MH-53 helicopters from Hurlburt Field conduct training operations within the low altitude tactical navigation area (designated as *Helicopter and Tiltrotor Low Level Training Area)* as shown in *Figure 16-4*. The TH-57 helicopters utilize specific areas designated for NAS Whiting Field within the overall low altitude tactical navigation area.

As population density increases underneath the low level training areas, the required altitude for flight operations is subject to being adjusted upwards to meet federal regulations and to minimize noise and risk to the population underneath. Increases in altitude would severely impact the training capability of the 1st Special Operations Wing (1 SOW) and Naval Air Station Whiting Field.

16.2.4 Lighting

Outdoor lights can cause difficult and unsafe flying conditions when located near airfields or within Military Training Routes used during night hours with night vision equipment. Ground lighting can interfere with a pilot's vision or with night vision instrumentation or equipment. Ground lighting may also cause confusion with approach landing patterns. Examples of ground lighting that can interfere with night vision equipment are residential street lighting, stadium lighting, amusement parks, golf courses and driving ranges (if lit at night), and parking lot lighting. Mobile lights (from sources such as motor vehicles or roaming spotlights) can also cause pilot disorientation and difficulty with night vision equipment. Several airfields, drop zones, and military training routes occurring on or over Eglin AFB and adjacent lands conduct these types of training, especially those associated with Hurlburt's 1 SOW.

Also, Eglin is home to the U.S. Army 6th Ranger Training Battalion, and the future home of the 7th Special Forces Group (Airborne). Training for night operations is mission-essential to these units. Light encroachment can be light trespass, glare, sky glow or any unintended consequence from artificial lighting. Light trespass is illuminating areas not intended. Glare results from overly bright lights and interferes with vision. Sky glow is the illumination of the sky from artificial sources. *Figure 16-5* shows the increase in artificial lighting that is visible from satellites. It is clearly evident that the amount of lights is increasing with population.

16.2.5 Height of Objects

Military Training Routes (MTR) are corridors of a defined width established and designated by the Federal Aviation Administration (FAA) specifically for military training according to the Eglin RAICUZ. Within these corridors, military

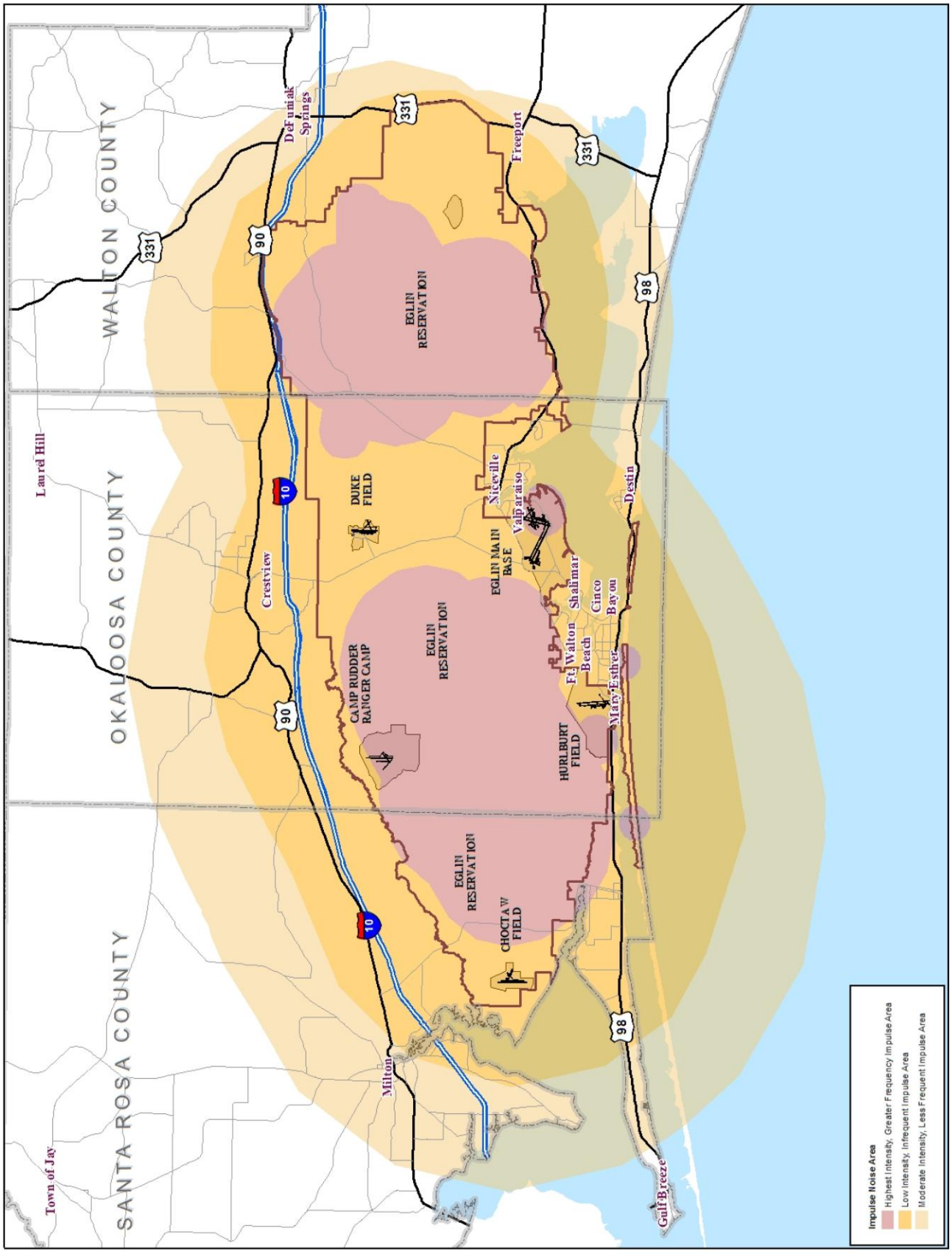

Figure 16-3: Impulse Noise Areas

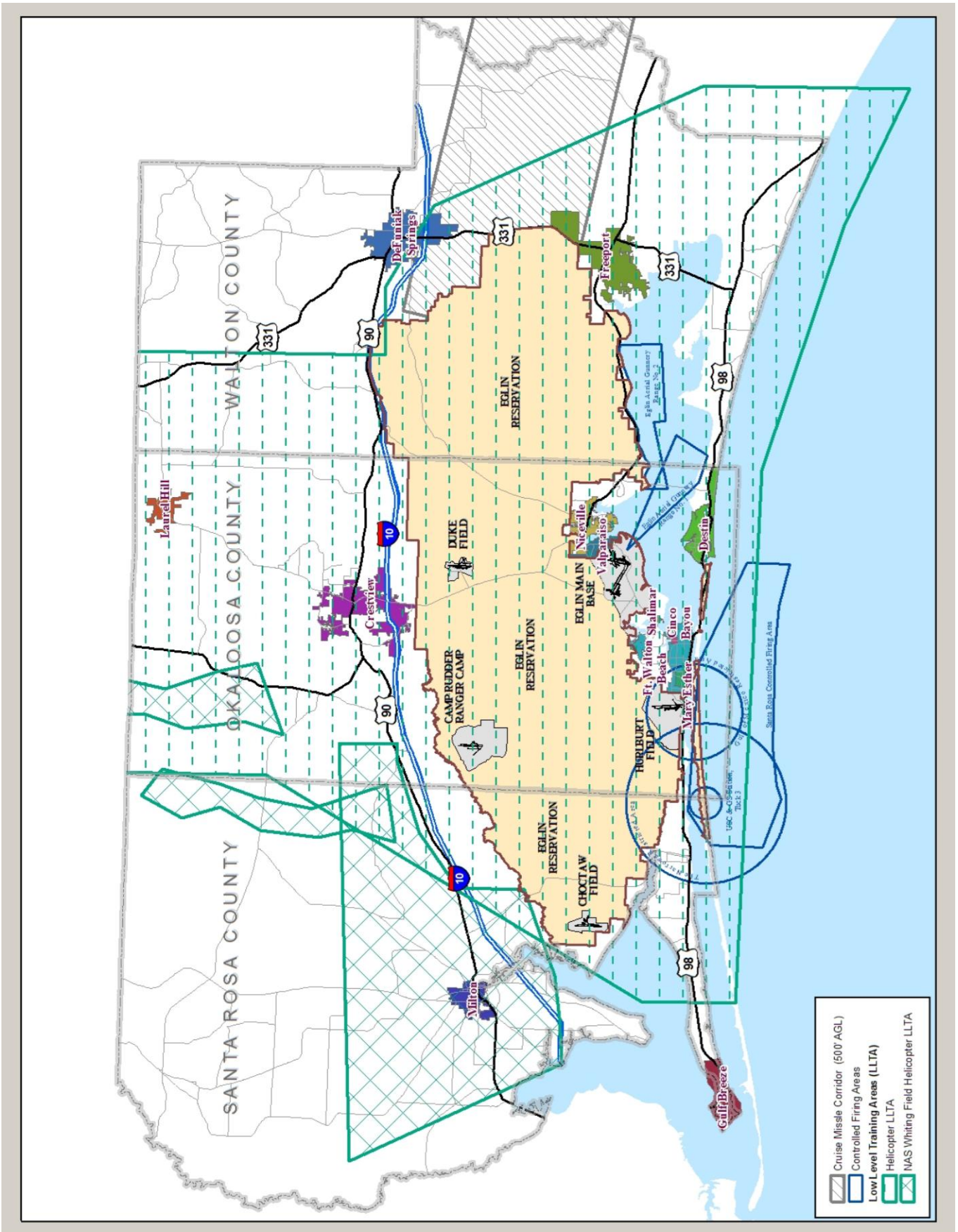

Figure 16-4: Low Level Training Areas Across

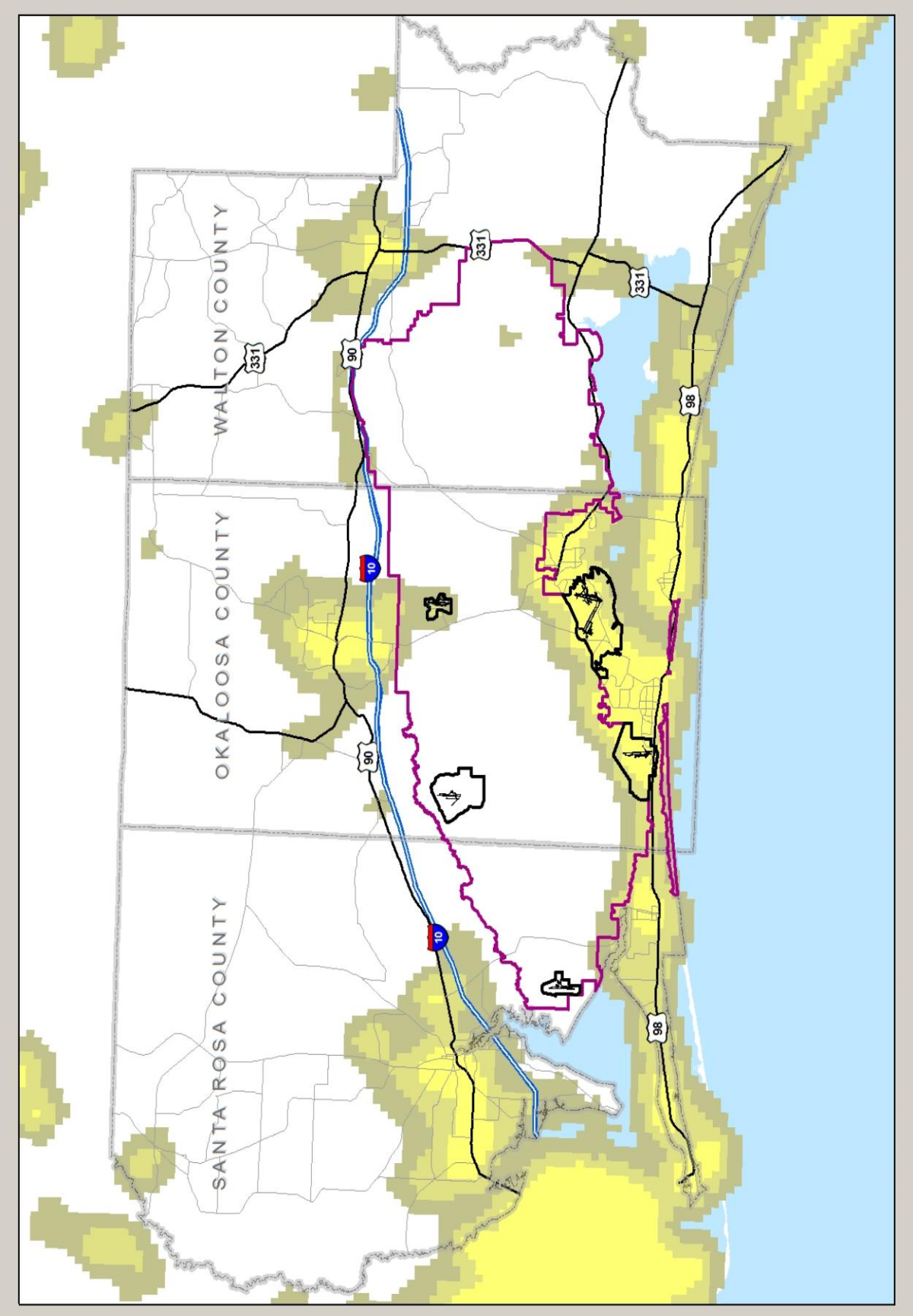

Figure 16-5: Visible Increases In Artificial Lighting From Satellite Imagery: Year 2000 (grey) Compared With 1992-93 (yellow) (Source: NOAA)

aircraft are permitted to conduct military training/RDT&E below 10,000 feet above mean sea level (MSL) in excess of 250 knots indicated airspeed (KIAS).

Two additional military training areas are the Slow Speed Low Altitude Training Route (SR) and the LLTA area. Flight within the SR must be below 1,500 feet above ground level (AGL) and at or below 250 KIAS. Typically SRs are flown with C-130 aircraft and helicopters as well as some slow speed training aircraft. LLTAs are large geographic areas where random low altitude operations are conducted at airspeeds below 250 KIAS. Typically A-10 aircraft and helicopters frequent LLTAs.

Within all of the MTRs, SRs, and LLTAs, low altitude navigation tactical training is currently conducted by C-130 cargo transport aircraft, helicopters, CV-22 Osprey, CA-212 light transport aircraft, fighter and attack aircraft, and training aircraft.

Airfields at which instrumented approach and departures are conducted use terminal instrument procedures (TERPS) for prescribing flight path area and vertical clearances from terrain and manmade obstructions according to the RAICUZ. This required open space is defined both vertically and horizontally, and is designed above the airfield imaginary surfaces. The restrictions prescribed for standard instrument approach and departure procedures require limitations on the height of buildings and other structures in the vicinity of airfields in order to ensure the safety of pilots, aircraft, and individuals and structures on the ground (U.S. Air Force, 1999). These procedures are a complex set of specific requirements that ensure the proper clearances exist for aircraft to safely take-off, land, and circle, when required. The requirements for each surface of a TERPS airfield are specified in FAA Orders 8260.3B, "U.S. Standard for Terminal Instrument Procedures" (TERPS) (July 7, 1976) and 8260.19C, "Flight Procedures and Airspace" (September 16, 1993).

TERPS have been designed for all major airfields on Eglin: Eglin's Main Airfield, Duke Field, Choctaw Field and Hurlburt's Main Airfield. Airfields with instrumented landing systems (ILS) are categorized based on aircraft that will use the airfield and conditions available for landing with instruments. The categories provide minimum altitudes at which a pilot must be able to see the runway prior to touching down with the aircraft. For example, Category I airfields with ILS have a 200-foot above ground minimum altitude at which the pilot must see the runway. This has a trickle down effect when it comes to heights of objects in the vicinity of airfields.

An additional complicating factor in altitudes and tall structures is weather conditions. As tall structures cause aircraft to fly higher prior to landing, conflicts can arise as a result of cloud ceiling heights and minimum altitudes prescribed by instrument approach procedures. If the cloud ceiling height changes due to weather and becomes lower than the acceptable altitude at which an aircraft can descend with instruments, the airfield is essentially unusable and no aircraft can land. The minimum ceiling height of clouds and the minimum visibility an air crew needs to plan for an instrument approach is based on the minimum descent altitude (MDA) for non-precision approaches or decision height (DH) for precision approaches. The MDA and DH are based on height of obstructions. Past a certain threshold, the higher the obstruction, the higher the MDA or DH required. The higher the MDA or DH, the higher the minimum cloud ceiling needs to be and the greater the visibility needs to be. This increase in required weather minimums reduces the availability of the airfield.

Figure 16-6 provides height limits based on military training routes and TERPS. In May 2006, the Air Force conducted a Building Height Study for the Southern Region of Okaloosa County to help ensure that there were no aviation problems. *Figure 16-7* identifies the maximum building heights resulting from this study.

16.2.6 Incompatible Development in Areas Influenced by Military Activities (Clear Zones, Accident Potential Zones (APZs), High Aircraft Noise Areas, Low Level Approach Zones, and Cruise Missile Corridors)

Incompatible development in specific areas is an issue for Eglin with the potential to impact the successful completion of missions assigned to the Base's installation partners. There are areas in Santa Rosa County, Okaloosa County, Niceville, and Valparaiso that include Clear Zones and Accident Potential Zones (APZs) extending beyond the Eglin AFB boundary. The high noise areas associated with the maximum mission noise contours also extend beyond the Eglin AFB boundary in Santa Rosa County, Okaloosa County, and in the cities of Destin, Niceville, and Valparaiso. Low Level Approach areas influence areas in Santa Rosa, Okaloosa, and Walton Counties and Crestview. The Cruise Missile Corridors cover Laurel Hill and portions of Walton County, DeFuniak Springs, and Freeport.

Each section of this report for the jurisdictions listed above includes detailed information associated with the issues identified.

Clear Zones. Aviation history has shown that property along primary flight paths and immediately beyond the end of runways have a higher potential exposure to aircraft accidents than areas further out from an airfield or flight path. Several studies of aircraft accidents discovered that the majority of accidents occur either on or adjacent to airfields

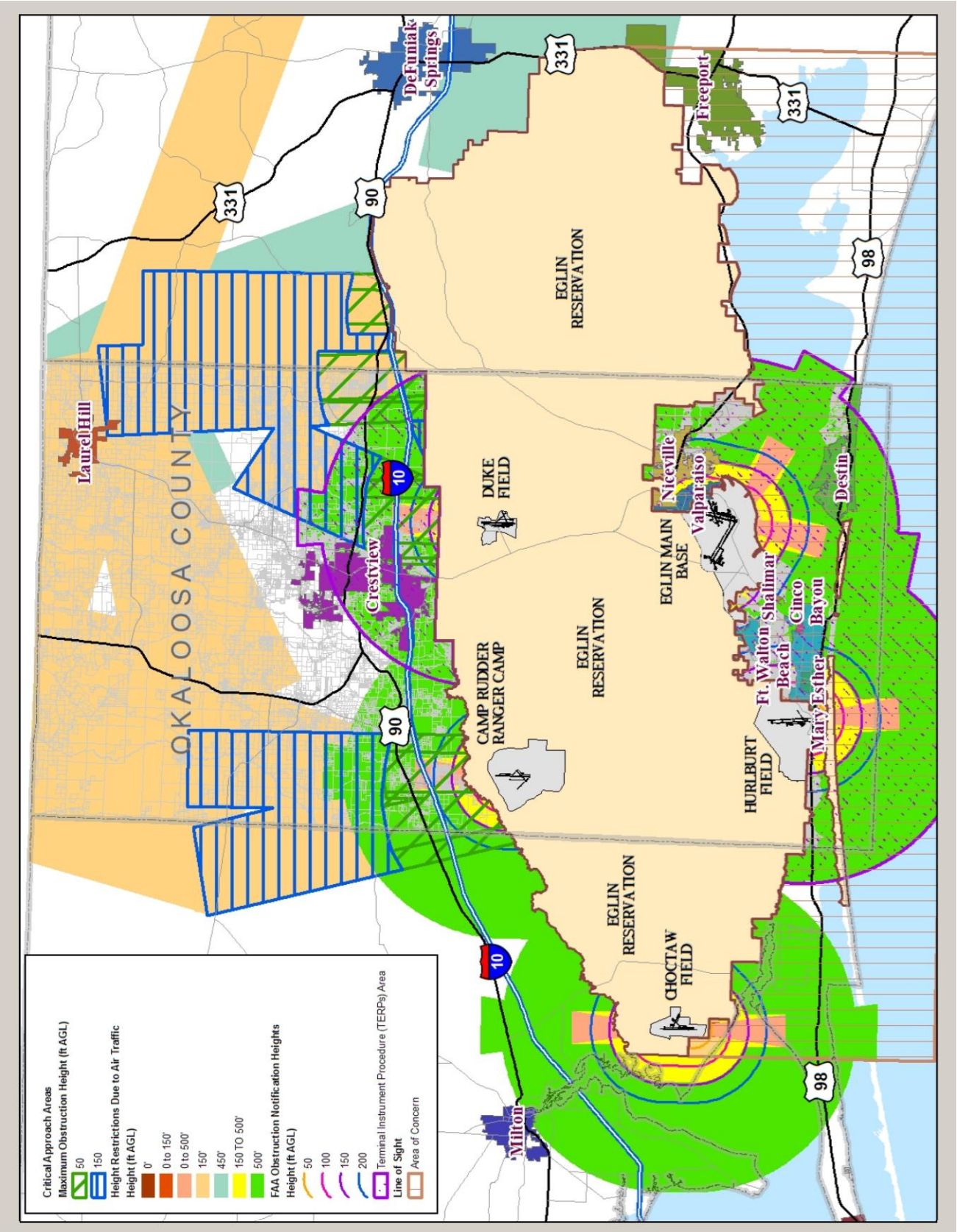

Figure 16-6: Maximum Obstruction Heights For Other Military Training Routes and Terminal Instrument Procedures (TERPS). Note the lowest elevation shown for an area governs.

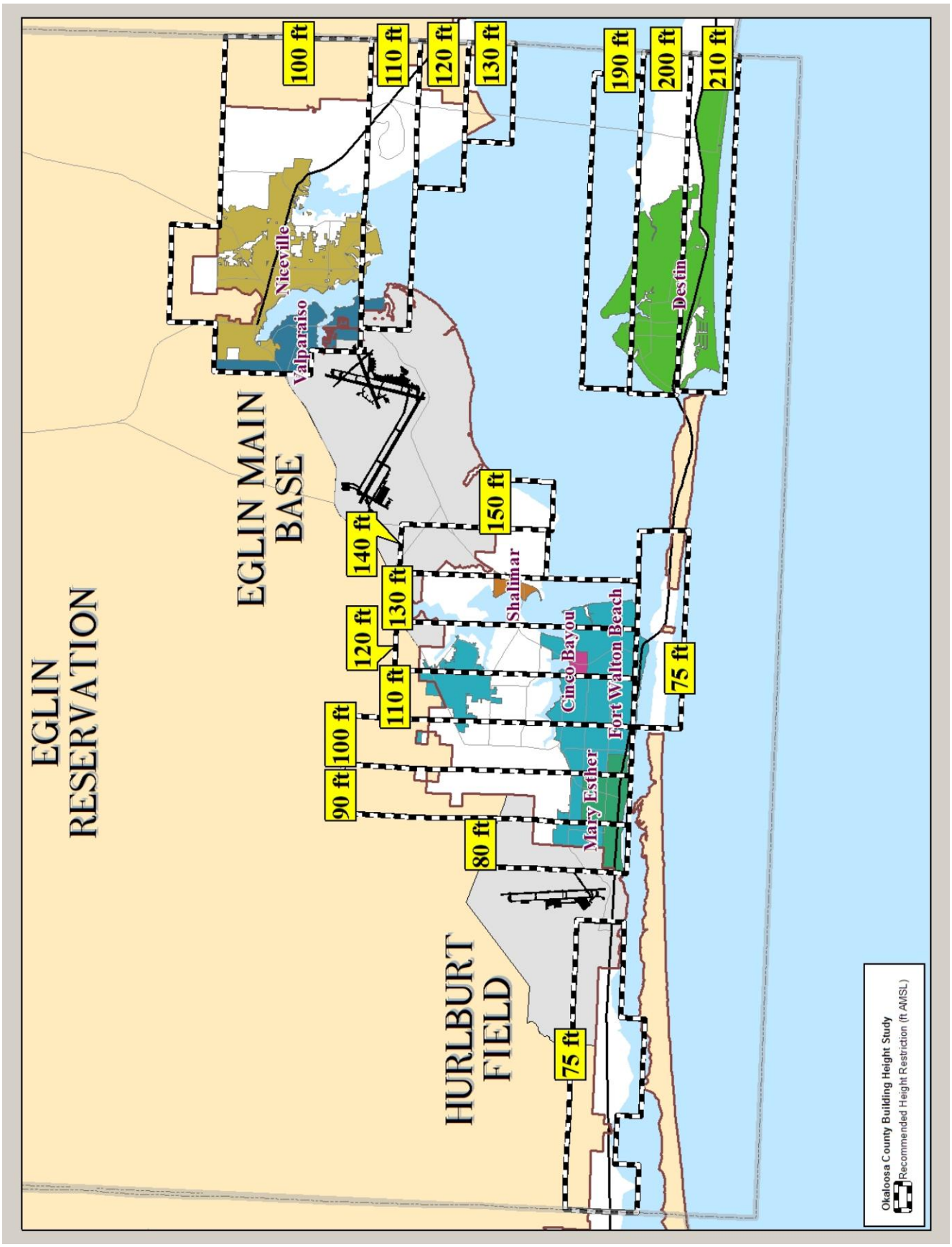

Figure 16-7: Okaloosa County Maximum Building Heights (Air Force, 2006)

(USAF, 1999). In response to these and other studies, the Department of Defense developed the Air Installation Compatible Use Zone (AICUZ) program to specifically address compatible use of public and private lands in the vicinity of military airfields (DODI 4165.57 and AFI 32-7063) (DoD, 1997; U.S. Air Force, 2003a).

Created as part of the AICUZ program, Clear Zones are intended to delineate areas exposed to higher risk. Intended to serve as guidelines only, Clear Zones function to heighten the general public's awareness to areas where higher risks occur. The Clear Zone is an area possessing a high potential for accidents and is located just past the end of a runway. In this report, the Clear Zone has been labeled "A" to enable easier depiction on maps.

There are Clear Zone areas extending beyond Eglin's boundary in the City of Valparaiso as previously shown in Figure 12-2 in the City of Valparaiso section.

Accident Potential Zones. Beyond the Clear Zone is an area along the flight path that possesses a significant potential for accidents. Created as part of the AICUZ program, Accident Potential Zones (APZ) are intended to delineate areas exposed to higher risk. Intended to serve as guidelines only, APZs function to heighten the general public's awareness to areas where higher risks occur. They also help local governments to identify where to direct zoning regulations and land use standards designed to reduce potential conflicts between airfield operations and civilian populations.

APZs are divided into two (2) designations based on accident potential. The zone closest to the Clear Zone is referred to as APZ-I. It has been labeled "B" for easier depiction throughout this study. APZ-II (labeled "C") is typically furthest from the runway in terms of the flight path and it has a measurable potential for accidents. Approach or departure flight paths will turn into or away from a runway. Therefore, APZ I and II may curve away from the end of a clear zone as well has leading straight out. Based on designated airport flight paths for approach and departure, some areas in a APZ-II zone may actually be closer to a runway than portion of the APZ-I.

APZ I areas extend beyond the Eglin boundary in Santa Rosa County and in the City of Valparaiso. APZ II areas are located beyond the Eglin boundary in Santa Rosa and Okaloosa counties and in the cities of Niceville and Valparaiso. Figures in the sections for these jurisdictions show the locations of the APZs, respectively.

High Aircraft Noise Areas. At the time of this report, the Air Force is developing the curriculum for the F-35. Two different noise alternatives (Alternate 1 and Alternate 2) were developed as part of the *Base Realignment and Closure (BRAC) 2005, Environmental Impact Statement (EIS)* and this information is being utilized as part of this JLUS. It appears the noise footprint associated with Alternate 1 covers a larger area in Santa Rosa County for the maximum mission noise contours and Alternate 2 provides the maximum mission noise contours in Okaloosa County and in the cities of Destin, Niceville, and Valparaiso. Therefore, Alternate 1 in Santa Rosa County and Alternate 2 elsewhere are the contours used for analysis and form the basis for recommendations in this report. *Figure 16-8* shows the two F-35 noise alternatives (Alt 1 and Alt 2) provided in the BRAC EIS with a one-half mile buffer offset outside of the 65dB noise contour for each alternative. The analysis and recommendations provided herein shall be reevaluated based on information forthcoming from the Air Force in the Supplemental BRAC EIS.

Low Level Approach Zones. Increases in altitude would severely impact the training capability of the 1 SOW and NAS Whiting Field. Maintaining lower population densities underneath the low level MTRs along the northern boundary of Eglin, which are used by the 1 SOW, is important for safety reasons. As these routes transition into Field 6 (Camp Rudder), Duke Field, Field 1, Pino Drop Zone, and Sontay Drop Zone, the aircraft is not able to deviate from its selected approach path in an attempt to avoid more densely populated areas or noise sensitive features (e.g., hospital, school, or church). The approach path generally begins approximately 10 nautical miles (NM) from the center point of the airfield or drop zone. *Figure 16-9* shows the low level approach zones.

Cruise Missile Corridors. Tomahawk® cruise missile testing and training is conducted at Eglin AFB within existing designated IR Military Training Routes (MTRs). The Tomahawk® missile is a long-range subsonic cruise missile used for striking high value or heavily defended land targets. It is launched from U.S. Navy surface ships and submarines (U.S. Navy, 2004). Cruise missiles are self-propelled and guided through on-board global positioning systems. During test and training activities at Eglin AFB, the Tomahawk® cruise missile flies between the altitudes 500 feet above ground level (AGL) to 4000 feet above MSL. The areas in which cruise missiles are flown are depicted as "Cruise Missile Corridor" in *Figure 16-10*.

16.2.7 Controlled Firing Areas

There are 20 test sites associated with Santa Rosa Island, 11 of which are actively used in support of the test and training mission at Eglin according to the RAICUZ. The missions at the test sites range from Command Centers that control the activation of flight termination systems for items being tested (Test Site A-3) to the launching of surface-to-air missiles such as the Air Intercept Missile and the

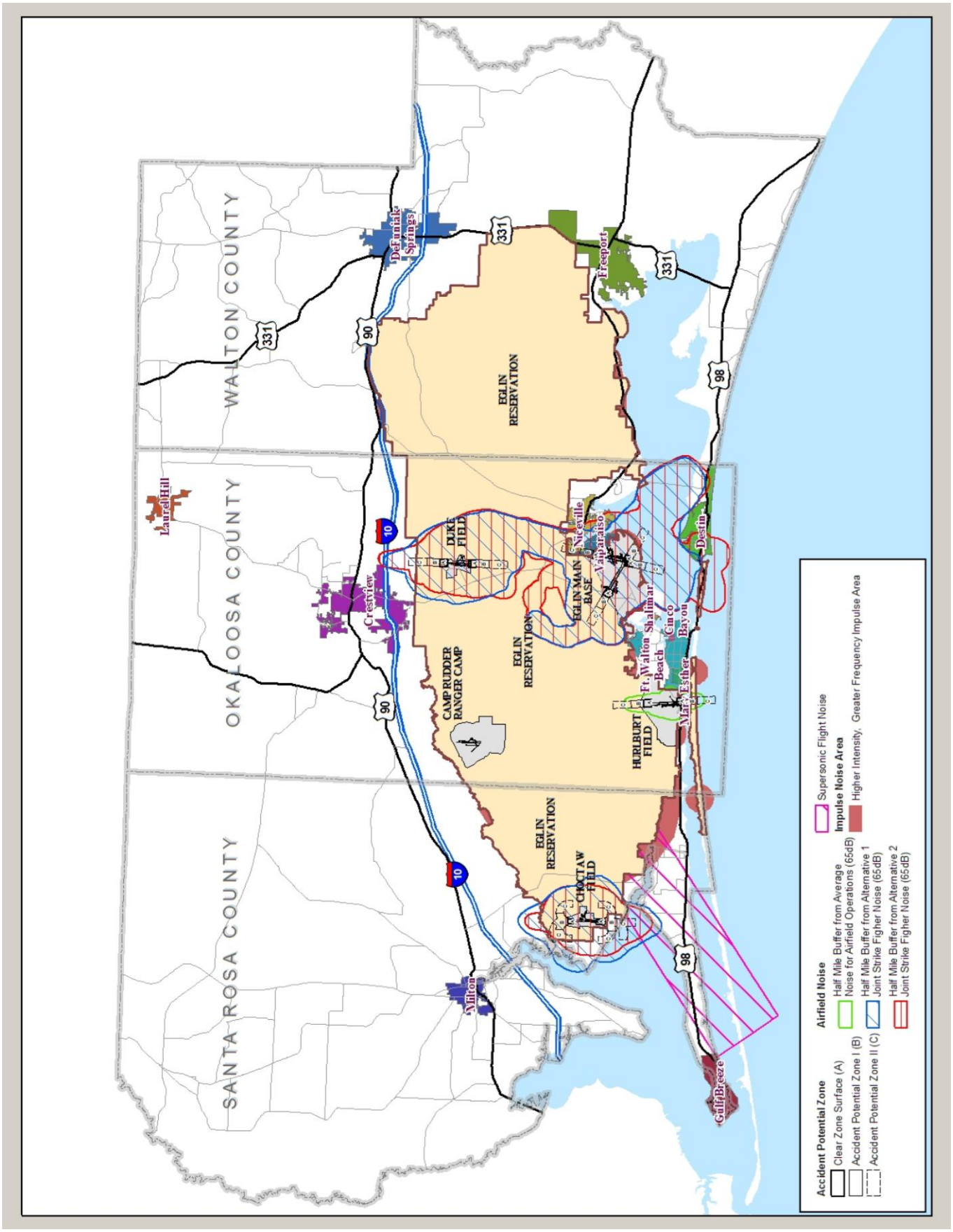

Figure 16-8: BRAC EIS Aircraft Noise Levels for Alternative 1 and Alternative 2 for the F-35 JSF

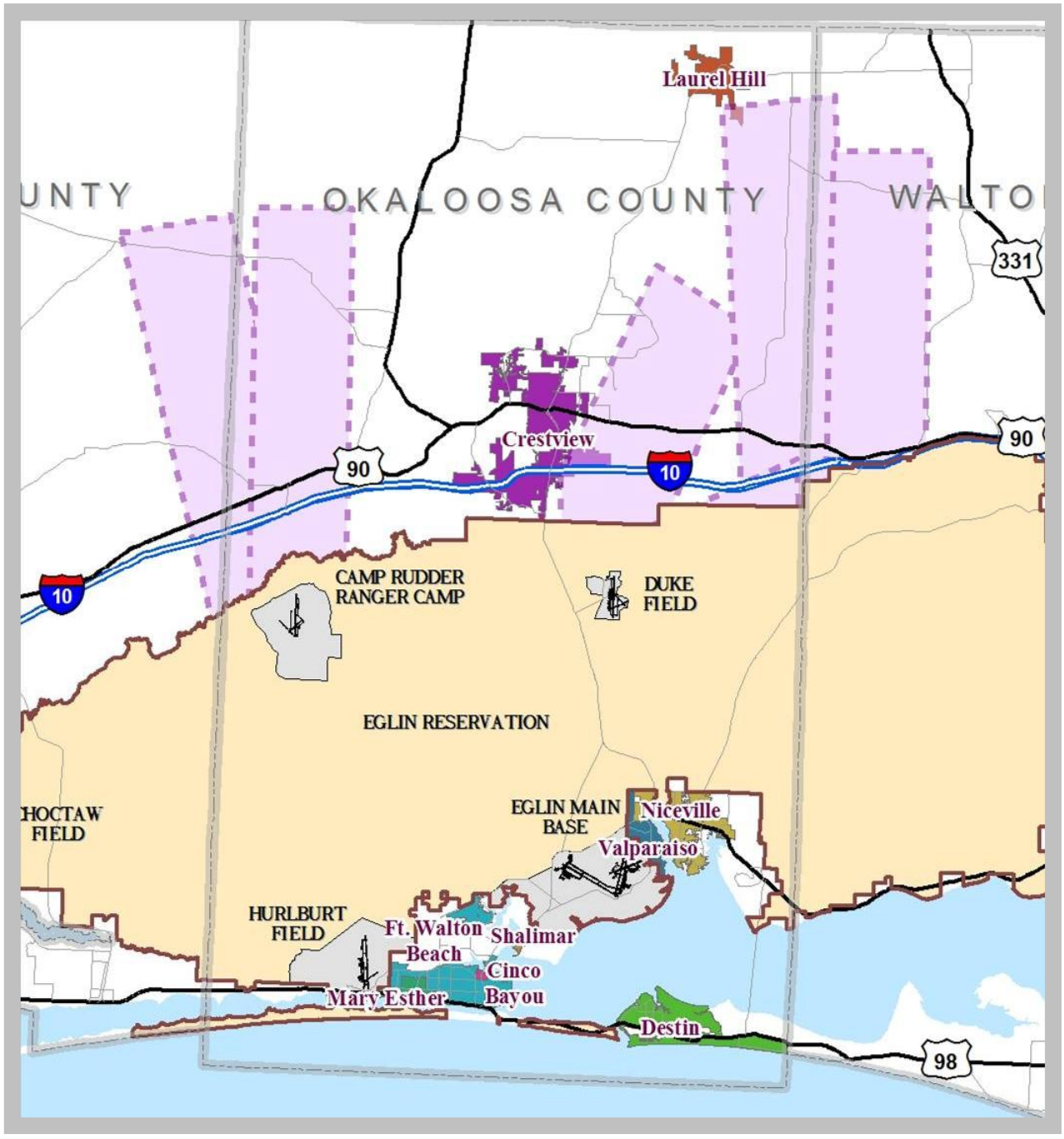

Figure 16-9: Low Level Approach Zones

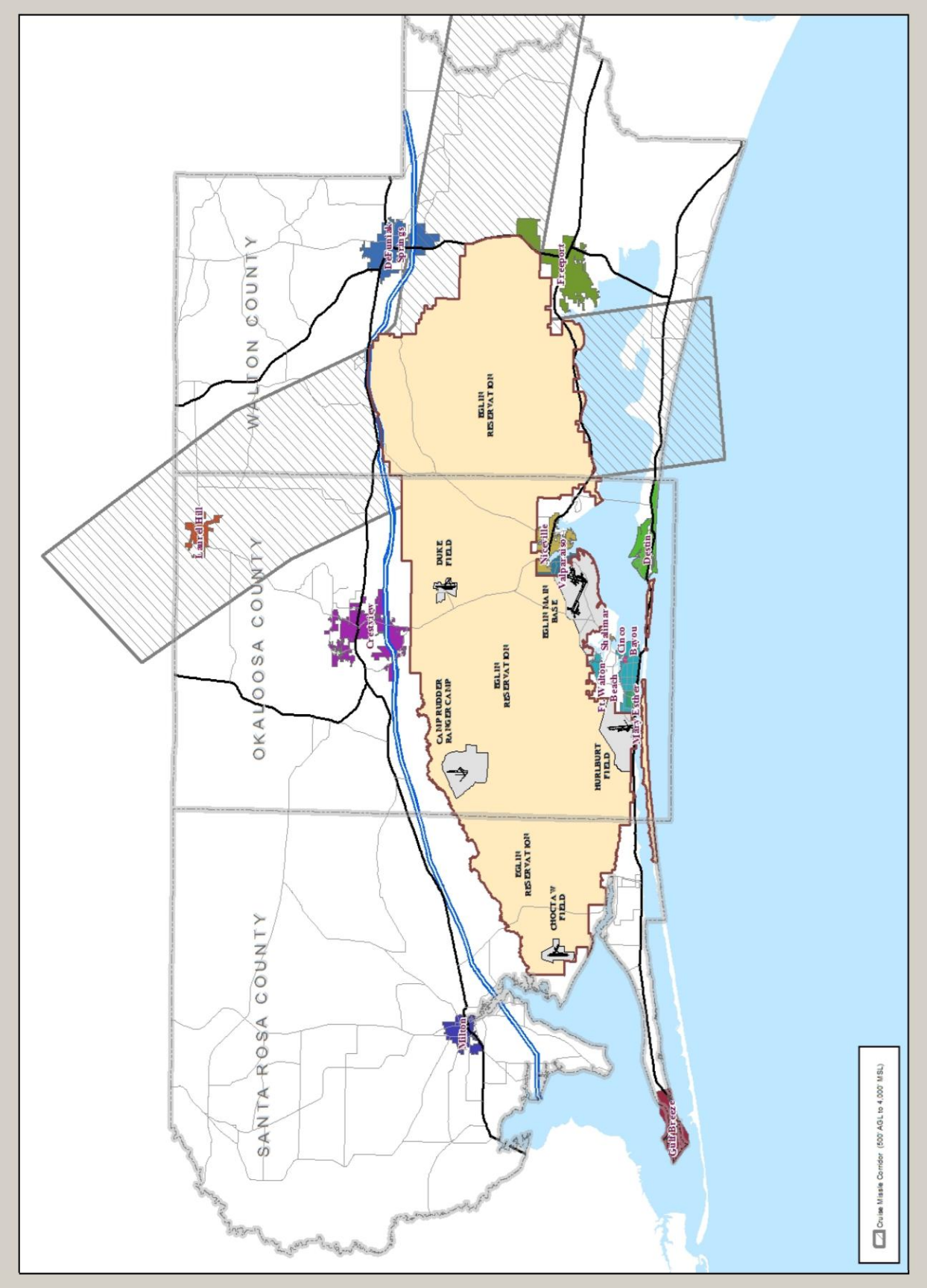

Figure 16-10: Cruise Missile Corridors

Patriot missile (Test Site A-15). In the airspace above the island and seaward for three nautical miles is a Controlled Firing Area. *Figure 16-11* shows the Controlled Firing Areas in the Fort Walton Beach Vicinity. These areas are defined air space blocks that contain activities that would be potentially hazardous to nonparticipating aircraft.

Successful and safe completion of the mission on land and the adjacent waters requires the control of the airspace, water, and land that are part of the mission scenario. Access restriction ensures the safety of people not participating in the mission as well as maintains mission integrity. The non-federally owned portions of Santa Rosa Island or establishment of artificial reefs, would attract marinas and additional boats to the area. The associated increase in boat traffic would complicate access restriction measures and potentially cause safety concerns, mission delay, or cancellation of the mission.

16.2.8 Highest and Best Use Potential of Government Owned Lands

Eglin's land area consists of 724 sq. mi. as described and shown in 16.1-Introduction of this section. The vast majority of this land is contiguous making up the various areas of Eglin AFB. There are areas where private property enclaves exist primarily in the area outside of Eglin's East Gate within the City of Valparaiso. This area is highlighted in *Figure 16-12.*

16.2.9 Air Traffic Control

Air Traffic from Eglin AFB, Northwest Florida Regional Airport, Destin Airport, and Bob Sikes Airport originates in Okaloosa County. Santa Rosa County has NAS Whiting Field and its six outlying fields, and Peter Prince Airfield, and Walton County has the DeFuniak Springs Airport. With the additional flights associated with the proposed F-35 program and the relocation of the Panama City—Bay County International Airport, air traffic control in and out of Eglin AFB as well as controlling air traffic across Northwest Florida requires additional planning and coordination.

16.3 ANALYSIS

16.3.1 Impulse Noise

The nature of the impulse noise extending beyond Eglin's boundary includes all three intensity levels—High Intensity, Moderate Intensity, and Low Intensity. The Moderate and Low Level intensity areas cover a large territory comprised of a variety of land uses in the tri-county area. However, the effects in the Moderate and Low Level Intensity areas is minimal on property owners and therefore does not include a detailed land use analysis. The High Intensity Level areas are included in the analysis for each impacted jurisdiction with a recommendation to include effective disclosure proceedings notifying potential buyers or lease holders of the potential for the explosive noise events in these areas.

16.3.2 Radio Frequency Interference

The analysis for radio frequency interference in the tri-county area recognizes that all three counties and incorporated limits fall within the 50-mile buffer from Eglin which the Air Force has identified as the area of influence with respect to radio frequency interference.

An example of successful frequency mitigation involves the use of garage door openers. The military negotiated with Sears to reserve the 315-MHz frequency for use with garage door openers in homes around military installations. Previously the frequencies that Sears used interfered with military operations. Sears has committed to producing and selling openers in stores near installations that only use the agreed-upon frequency (Giangrosso, 2006).

The use of industrial, scientific, and medical (ISM) devices can encroach upon several different bandwidths utilized by Eglin for a variety of missions according to the Eglin RAICUZ. Interference from the ISM devices is handled as it is detected. A reactive approach is acceptable for these devices since the encroachment occurs less frequently and is not directly related to control of a test item (Giangrosso, 2006).

Although the Counties and Cities included in this study are not responsible for regulating or licensing radio frequencies, there are steps Eglin AFB can take to help minimize radio frequency interference through the development review process in each jurisdiction. The Counties and Cities should begin including educational material provided by Eglin for developers and builders pulling development orders and/or building permits on the importance to limit the bandwidth used in their proposed development and/or building(s). This literature should include language describing the potential negative implications from radio frequency interference and describe the region's long standing support of the military to minimize interferences such as wireless LAN, microwave, and cordless devices. As stated in the RAICUZ, since encroachment on these frequencies interferes with the safety of test missions, protection is a priority and must be proactive rather than reactive as interferences occur.

16.3.3 Low Level Helicopter and Tiltrotor Training

The low level helicopter and tiltrotor training area covers the majority of the tri-county area and as a result influences a broad range of land uses. The result of land use in this area may be perceived as a nuisance resulting from low level helicopters and tiltrotors flying overhead and increasing sound and having other effects associated with low

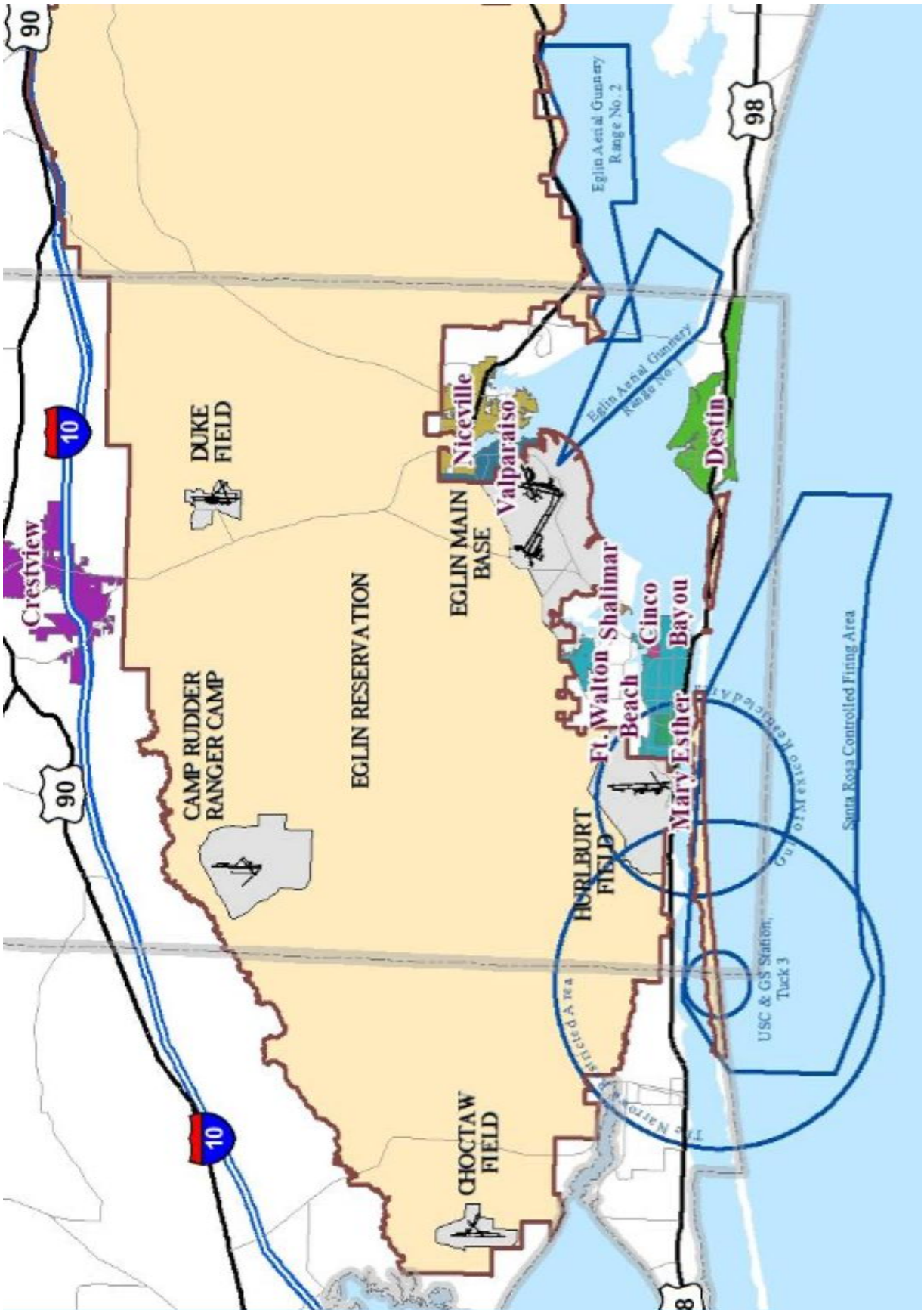

Figure 16-11: Eglin Controlled Firing Areas

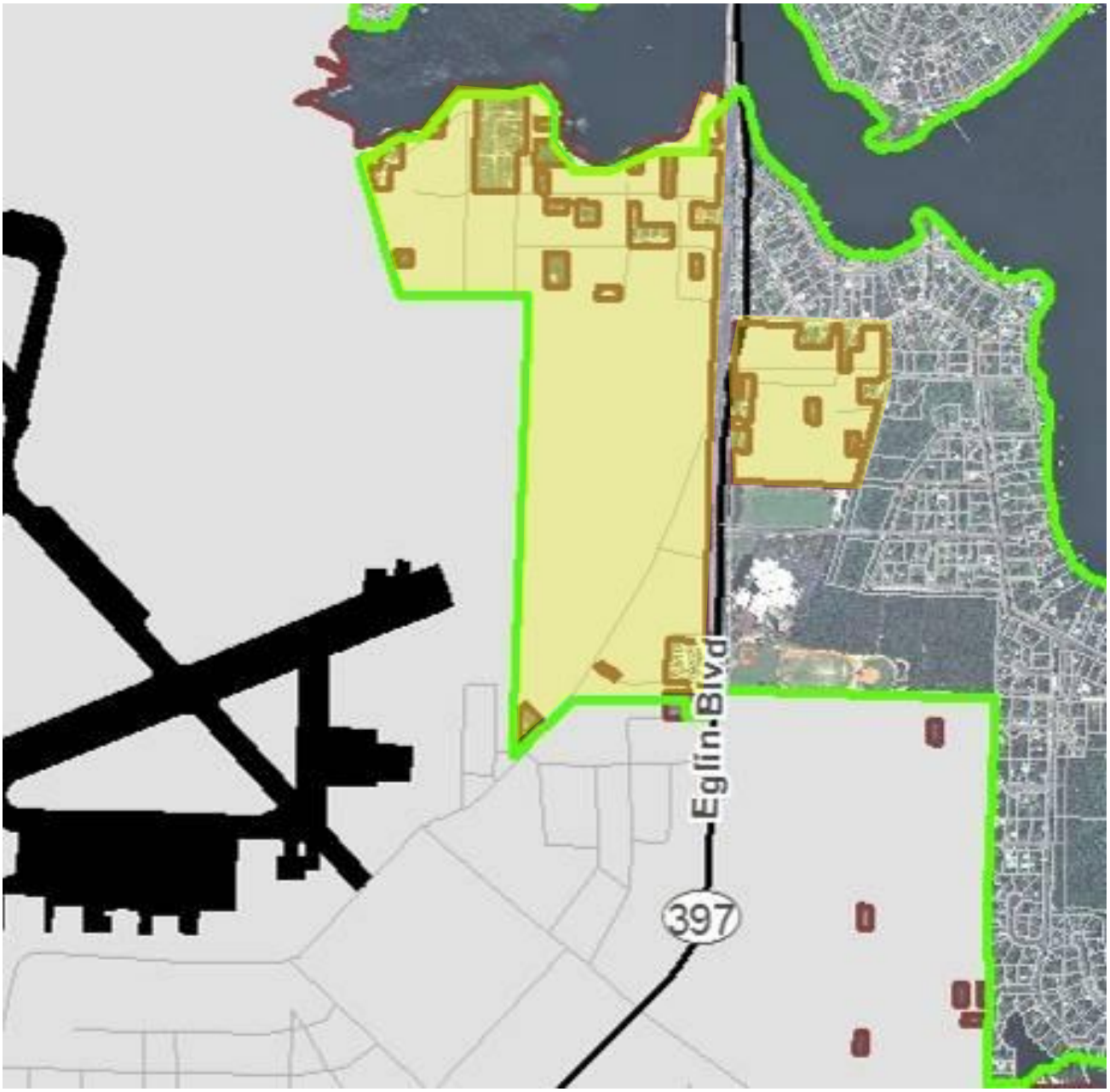

Figure 16-12: Highlighted Areas of Private Property Enclaves Outside Eglin's East Gate Within City of Valparaiso

flying helicopters and tiltrotors. Should the frequency and number of flights in the low level helicopter training area increase, there may be a need for further analysis and recommendations.

16.3.4 Lighting

Requirements to avoid glare and reflection of lights across the Eglin Reservation would be applicable for the jurisdictions abutting Eglin and for lands within Eglin AFB which includes Eglin Main, Hurlburt Field, Duke Field, Camp Rudder, and Army's 7th Special Forces Group. Should the region including Eglin AFB lands choose not to address light encroachment over the Eglin Reservation, there will likely be negative impacts to the various branches of military continuing use of the Reservation for training operations.

In 1994, over 30 percent of Fort Benning, Georgia was affected by city lights, and it is projected that over 50 percent will be affected by 2015. In 2005 over 50 percent of Marine Corps Base Camp Lejeune was light-encroached, with that number predicted to be 83 percent by 2015 (U.S. Army Corps of Engineers, 2005). In order to avoid light encroachment and provide adequate night training environments for both air and ground operations to continue its current missions, proactive measures to prevent light encroachment should be taken by the local jurisdictions and on Eglin AFB.

16.3.5 Incompatible Development in Areas Influenced by Military Activities (Clear Zones, Accident Potential Zones (APZs), High Aircraft Noise Areas, Low Level Approach Zones, and Cruise Missile Corridors)

Clear Zone. The Clear Zone area extending beyond the Eglin boundary in the City of Valparaiso is described in Section 12 of this report and the single-family residential land use within this area identified as incompatible.

Accident Potential Zones (APZs). The APZs in Santa Rosa County, Okaloosa County, and the cities of Niceville and Valparaiso exist outside the Eglin boundary. Existing and Future Land Use in these areas was identified and analyzed in the respective sections of this report for these jurisdictions (Section 2, 3, 10 and 12).

High Aircraft Noise Areas. Noise provided in the BRAC EIS for the maximum mission contours shows noise based on the Day Night Average sound levels exceeding the 65dB level in Santa Rosa County, Okaloosa County, and the cities of Destin, Niceville, and Valparaiso. The analyses for the areas included within the maximum mission noise contours are also provided in each jurisdiction's section of this report (Section 2, 3, 6, 10, and 12).

Low Level Approach Zones and Cruise Missile Corridors. Areas along the northern boundary of Eglin AFB currently low in population density provide ideal conditions for low level flight and low altitude night vision goggle training, a vital skill for new pilots to learn and veteran pilots to maintain. An increase in population density and development along the northern Eglin boundary would force increases in altitude and/or changes in flight paths, both critically impairing the ability to conduct training at Field 6 (Camp Rudder), Field 1, Pino Drop Zone, Sontay Drop Zone, and Duke Field. The assault landing strip at Duke Field is used for assault landing training and is the only location in the United States that offers this type of training, which is an essential part of special operations capability (U.S. Air Force, 2003b).

To identify the area in which low population densities would be ideal and where incompatible development would cause the most impact, the RAICUZ includes the Northwest Florida Greenway Corridor Study Area was delineated *Figure 16-13*. The goals of the corridor study area are to promote the sustainability of the military mission, to preserve the high biodiversity of the area, to enhance outdoor recreation, and to support the economic health of the area. It consists of federally and state managed lands, conservation organization lands, and private lands. By delineating the corridor and agreeing to work together, the federal agencies, state agencies, conservation organizations, and local city and county governments committed to furthering the goals of the Northwest Florida Greenway Corridor Study Area.

16.3.6 Highest and Best Use Potential of Government Owned Lands

Government owned lands are recognized assets of the US Government and as such, the ability to maximize the value of this land based at a highest and best use is a priority. Base Master Planning and the Enhanced Use Lease (EUL) program continue to provide the Air Force and other military branches opportunities to plan and utilize underutilized assets inside and outside installations' gates. There are two areas associated with Eglin where this effort is moving forward—the REEF EUL and the Emerald Breeze EUL. These two locations include land outside of Eglin's gates.

The area outside of Eglin's East Gate was examined to see if there are opportunities associated with putting US Government owned land to its highest and best use. The area in general includes parcels south of Tom's Bayou along the John Sims Parkway corridor as shown in *Figures 16-14 and 16-15*. This area includes approximately 78 parcels covering approximately 160 acres total. There are 58 parcels covering approximately 137 acres west of John Sims Parkway (shown as Area A) and 20 parcels comprising approximately 23 acres east of John Sims Parkway (shown as Area B). There are 19 different property owners in Area A west of John Sims Parkway including the US Government

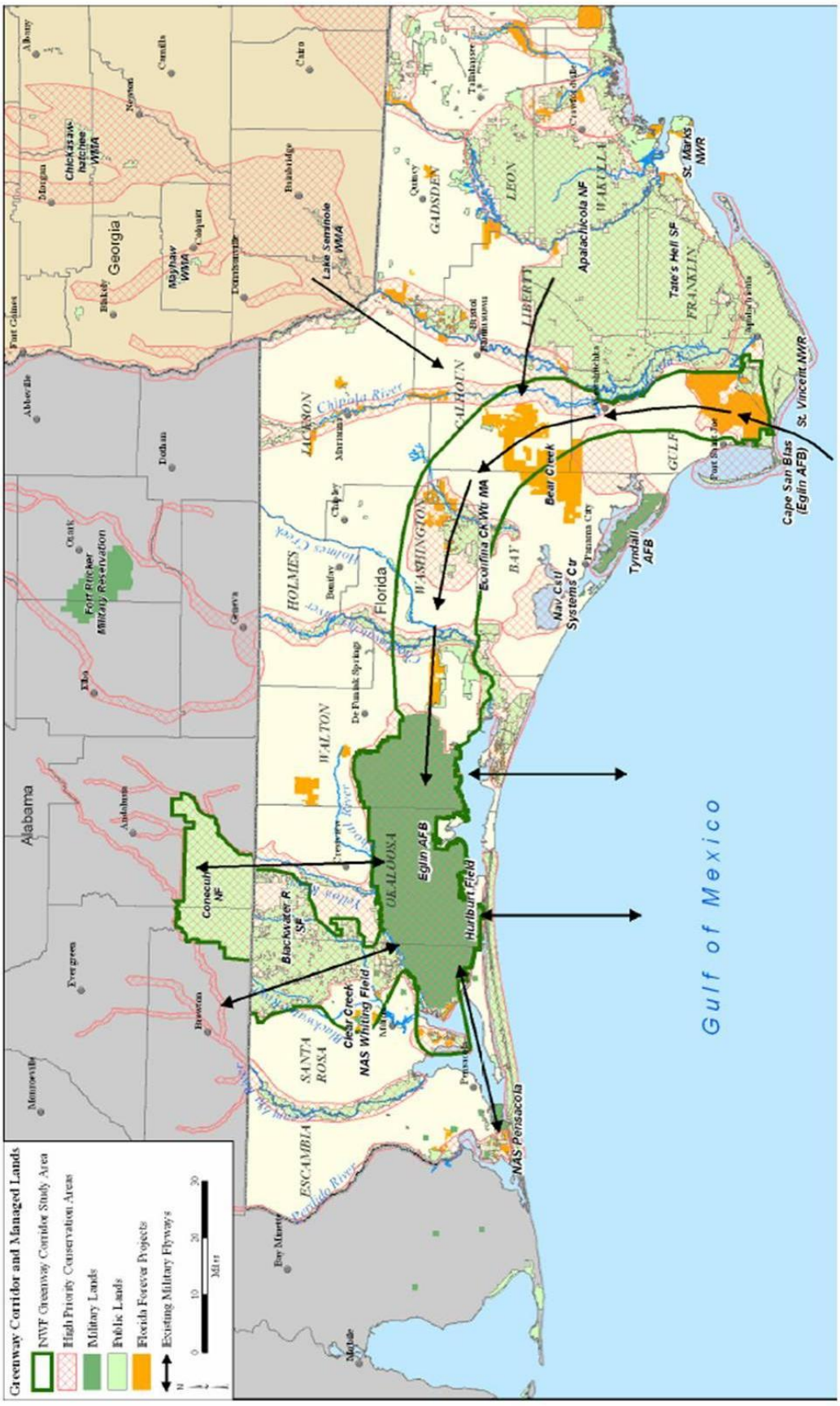

Figure 16-13: Northwest Florida Greenway Corridor

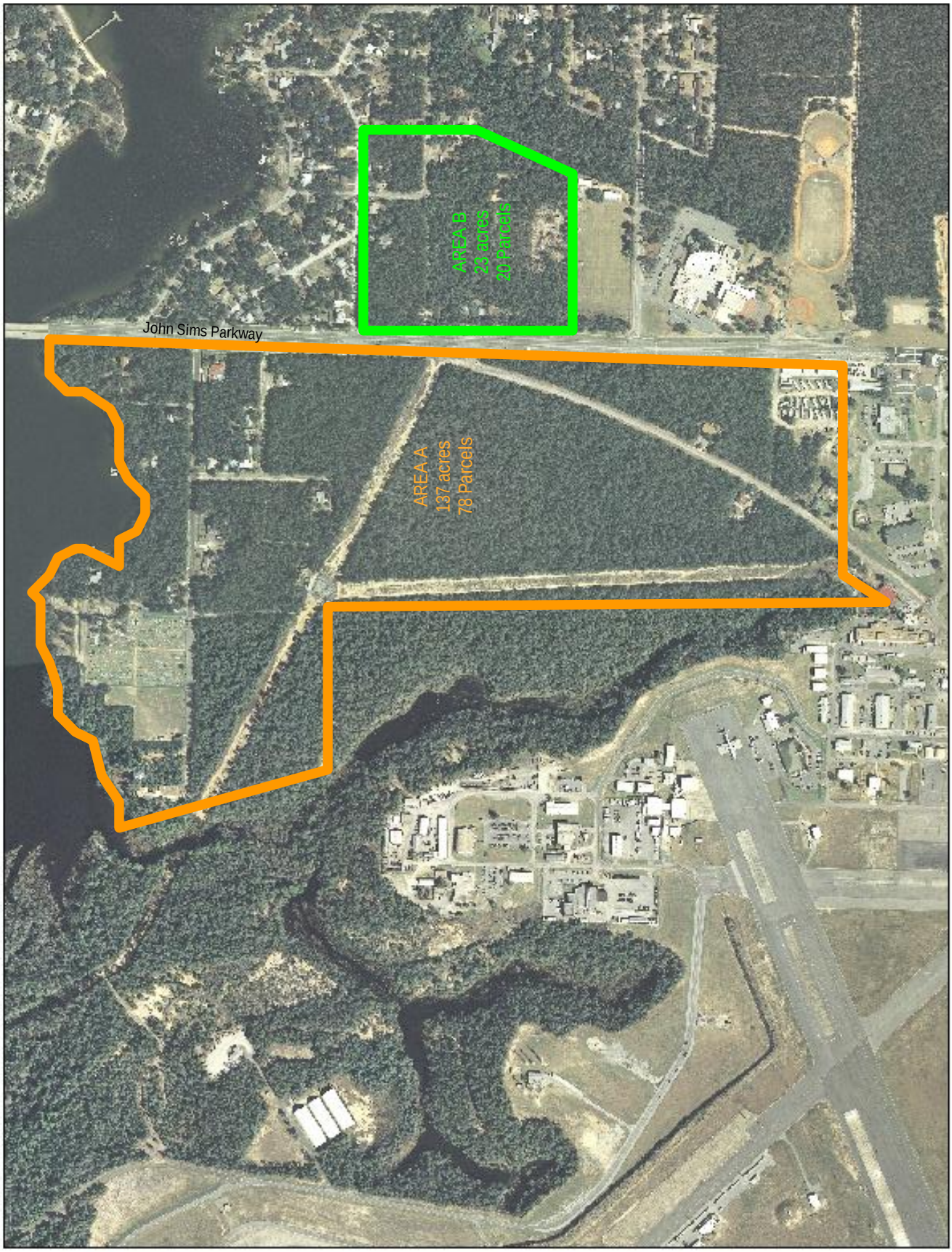

Figure 16-14: Areas of Private Property Enclaves Outside Eglin's East Gate Within City of Valparaiso

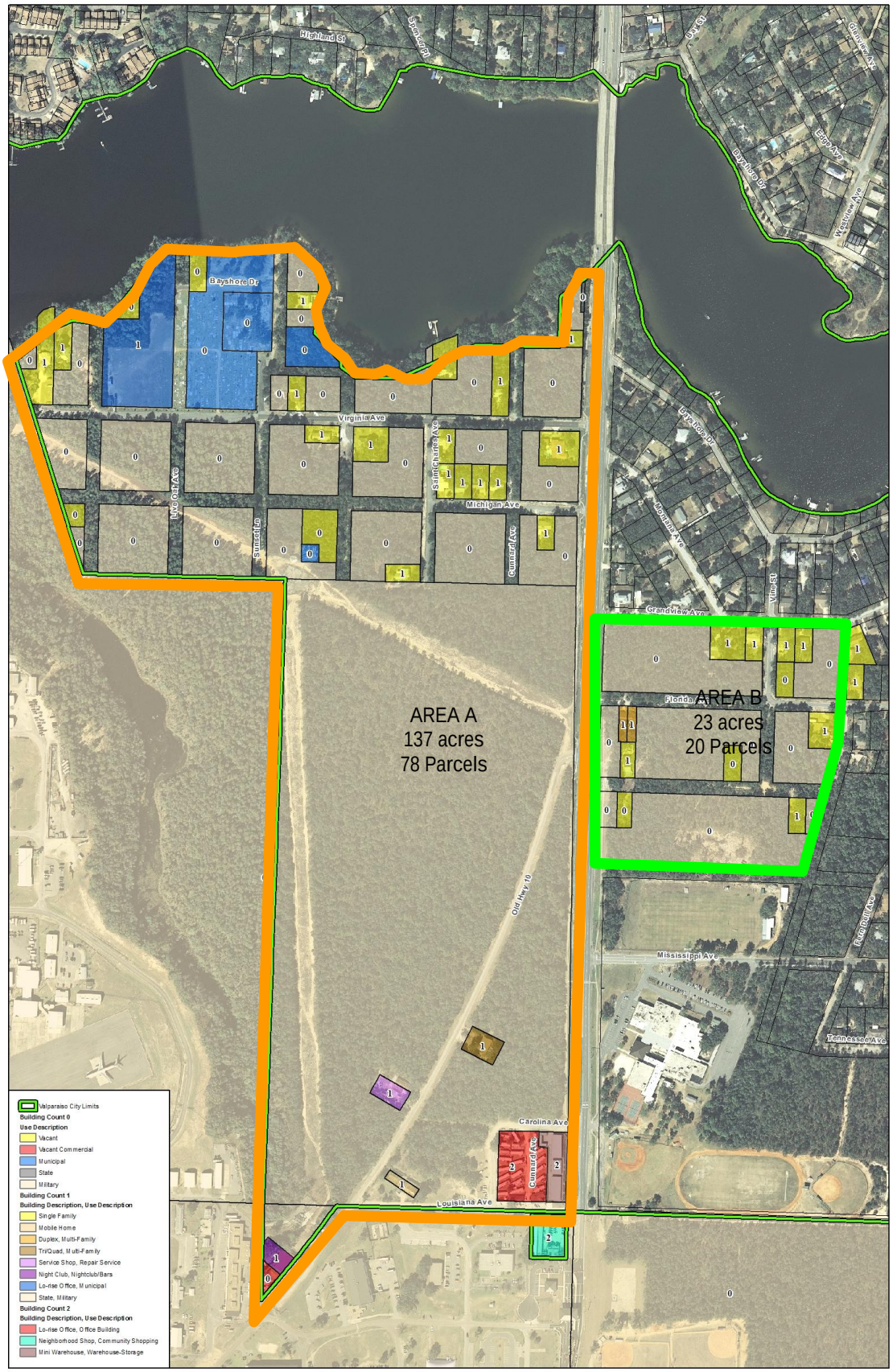

Figure 16-15: Existing Land Use and Building Count in Areas of Private Property Enclaves Outside Eglin's East Gate

which owns approximately 95% of the total 137 acres. There are 10 different property owners in Area B east of John Sims Parkway including the US Government which 85% of the total 23 acres in this area. The land use in this area includes single-family residential, commercial, institutional (Lewis Middle School and cemetery), and undeveloped.

Since the majority of ownership in this area is by the US Government (95% in Area A west of John Sims Parkway and 85% in Area B east of John Sims Parkway), there is potential opportunity to acquire adjoining parcels and create ownership and equity of a much larger area at a lower cost than the US Government attempting to purchase the same acreage of land elsewhere.

16.3.7 Air Traffic Control

The ongoing Air Force funded Gulf Regional Airspace Strategic Initiative (GRASI) is intended to improve the effectiveness and efficiency of airspace utilization across Northwest Florida. The work is being led by representatives from Eglin AFB with civilian aviation authorities with the goal to preserve and protect the airspace requirements of users now and for the foreseeable future. The focus is on supporting multiple military and civilian aviation purposes. The primary military users are the US Air Force and US Navy and the civilian use serves both commercial and general aviation requirements. Of primary interest is the impact of the new F-35 JSF including up to 113 new aircraft and projections that flights over Eglin airspace alone are expected to rise from 192,000 to 427,000 by 2014.

16.4 RECOMMENDATIONS

Based on the issues identified and the analysis associated with each issue, recommendations focused on addressing each issue or combination of issues are provided. It is the intent of the recommendations to provide guidance on land use and related land use policies and procedures with definitive direction for successful implementation.

The following summarize the recommendations for Eglin AFB:

- EGL 1: Complete Supplemental EIS Related to the Number and Operations of the JSF with Mitigating Measures to Lessen the Impact of the Operations on Civilian Lands
- EGL 2: Prepare Education Handout Materials to be Provided to Cities and Counties for Their Use Educating Developers and Builders on Radio Frequency Interference
- EGL 3: Partner with Local Jurisdictions to Implement Public Awareness Measures Through Environs Signage, Website Links, Educational Handouts, and/or Multi-media Productions
- EGL 4: Actively Participate in Small Area Studies For The Low Level Approach Zones, Cruise Missile Corridors, and Eglin Buffer
- EGL 5: Provide Appropriate Technical Assistance as a Partner in the Study to Determine How to Best Retrofit Existing Public Buildings Within the High Noise Level Areas (>65 dB) with Sound Attenuation
- EGL 6: Provide Appropriate Technical Assistance as a Partner in the Study to Develop Retrofit Program for Sound Attenuation for Occupied Buildings in High Noise Level Areas (>65 dB)
- EGL 7: Continue Participating in Ongoing and Proposed Voluntary Land Acquisition Programs by The Nature Conservancy, Florida Forever Program, Florida Defense Alliance Grants, and Other Related Land Conservation Programs
- EGL 8: Support and Promote State and Federal Land Acquisition in Yellow River and Shoal River Floodplains and Tributaries and Identified Greenway Corridors
- EGL 9: Participate in the Formalizing of Policy to Include Military Participation and Cross-Jurisdiction Coordination in Development Review and Planning Process
- EGL 10: Complete the Ongoing Air Force GRASI Airspace Study Currently Scheduled for Completion by December 2010
- EGL 11: Sponsor Acquisition of Properties Identified in the Clear Zone of Runway 19 to the Deputy Secretary of the Air Force (Installations)
- EGL 12: Support Funding and Implementation of the Air Traffic Control Tower at the Destin Airport
- EGL 13: Coordinate with the Escambia County Community Planning Department Regarding the Supersonic Corridor Stretching from Santa Rosa County into the Pensacola Beach Area (outside the study area of this JLUS)
- EGL 14: Prepare or Update the 2006 AICUZ with Applicable Information for the JSF Including Consideration of Future Events and Ramifications of Those Events on Surrounding Communities
- EGL 15: Implement Outdoor Lighting Requirements on Eglin Property Similar to Controls Proposed for Local Communities

- EGL 16: Continue *Ex-officio* Representation on the Planning Commissions for the Counties and Cities in the Tri-county Area
- EGL 17: Execute First Right of Refusal Legal Documents with Private Property Owners of the Enclave Parcels Outside the East Gate

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