CITY OF NICEVILLE
FLORIDA

SECTION 10 - NICEVILLE

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10.1 INTRODUCTION

Niceville is a city in Okaloosa County located in close proximity to Eglin Main. As of 2005, the population estimate was at 12,582.

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As of census of 2000, there were 11,684 people, 4,637 households, and 3,385 families residing in the City. The population density was 1,069.8 per square mile. There were 4,907 housing units at an average density of 449.3 per square mile.

There were 4,637 households out of which 32% had children under the age of 18 living with them, 59% were married couples living together, 10% had a female householder with no husband present, and 27% were non-families. 22% of all households were made up of individuals and 8% had someone living alone who was 65 years of age or older. The average household size was 2.49 and the average family size was 2.89.

In the city the population was spread out with 23% under the age of 18, 9% from 18 to 24, 27% from 25 to 44, 27% from 45 to 64, and 13% who were 65 years of age or older. The median age was 39 years.

Figure 10-1 shows Niceville's city limits.

10.2 ISSUES

Based on individual and group meetings with City representatives, information provided by Eglin AFB, and meetings and discussions with Eglin AFB, issues were identified with respect to encroachment around Eglin AFB. During the May 8, 2008 Technical Advisory Committee meeting and the June 18, 2008 Public Open House, the issues for the City were identified and explained. The following are the issues identified for the City:

- Development at Eglin AFB Boundary
- Impulse Noise
- Runway Accident Potential Zones (APZs) I and II
- Airfield Noise
- Low Level Helicopter and Tiltrotor Training Courses
- Terminal Instrument Procedures (TERPs)
- Radio Frequency Interference
- Height of Objects
- Lighting

For clarification, each issue listed above is described further in the following subsections with descriptions and graphics providing information on how military activities influence the public.

10.2.1 Eglin Perimeter Boundary Development

The majority of the City's northernmost city limits abut Eglin's boundary. However, with the exception of the northwest corner of the city limits, there is an established right-of-way buffer in College Boulevard or the Eglin Golf Course. It is important to note development near the boundary of a military base/reservation can create security concerns, promote excessive light during nighttime hours, and encourage other encroachments onto the base/reservation. *Figure 10-1* shows the portion of the City currently adjacent to Eglin's boundary.

10.2.2 Accident Potential Zones I and II (Area "B" and "C")

Beyond the runway 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. For the City of Niceville, APZ I and II lead straight out from the end of the Clear Zone and are shown in *Figure 10-2*.

Fixed-wing aircraft and helicopters takeoff or land into the wind. Landing or takeoff against the wind provides optimal aerodynamic conditions to lift aircraft and gain altitude. Flight paths leading toward an airfield, called an entry pattern, frequently enter from a course not aligned with the upwind runway or landing approach. In such situations, aircraft must fly an established local pattern until aligned

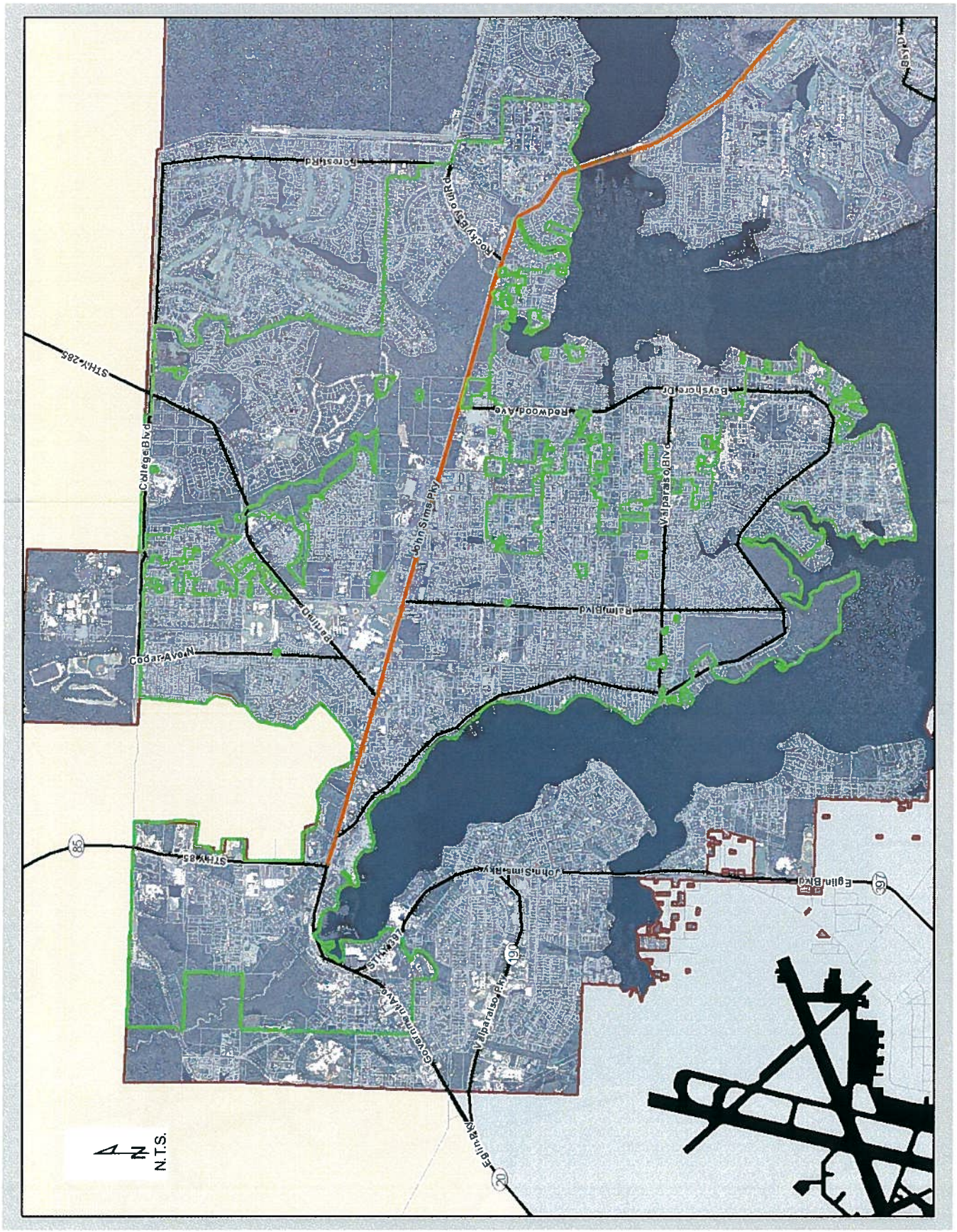


Figure 10-1: Niceville City Limits

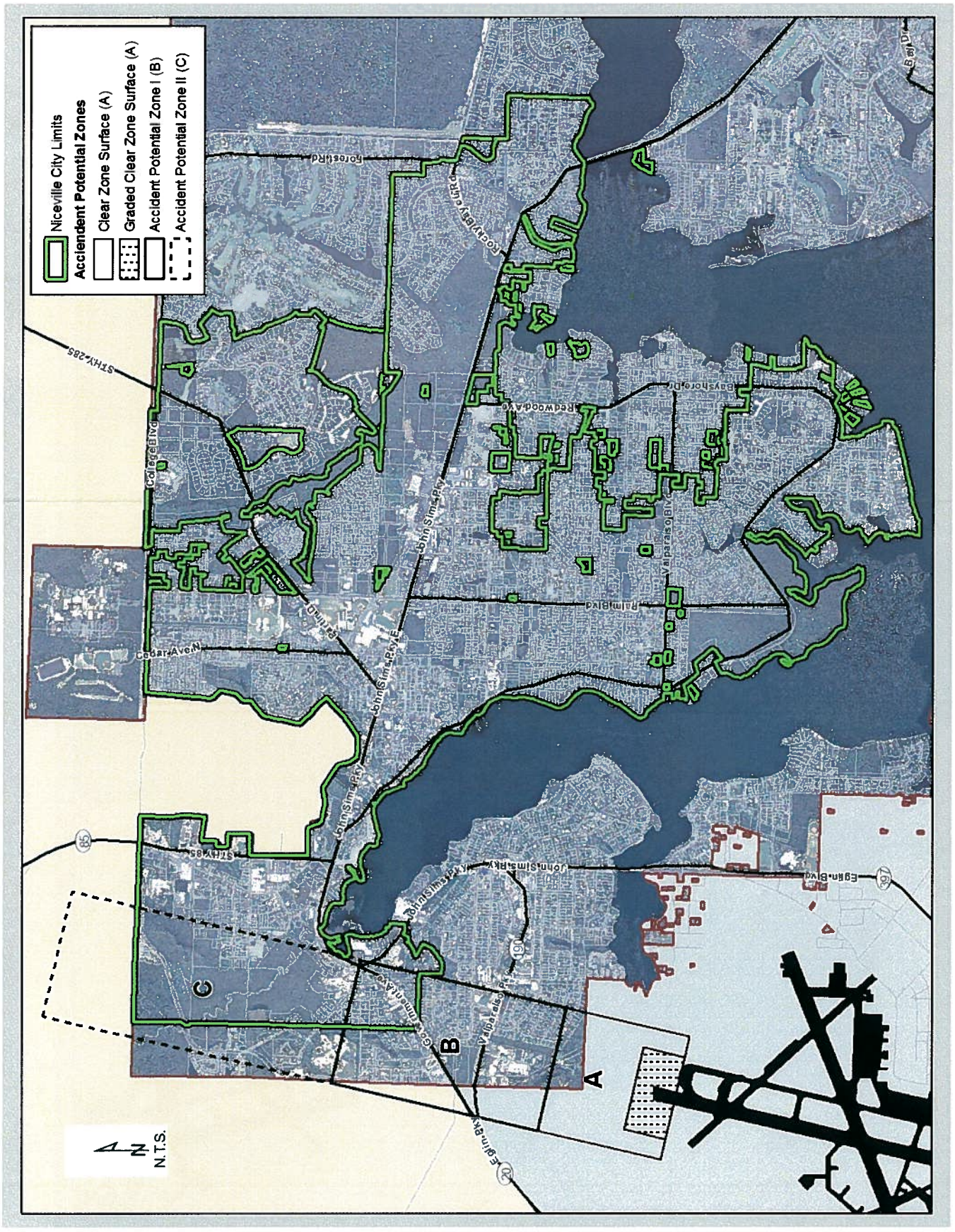
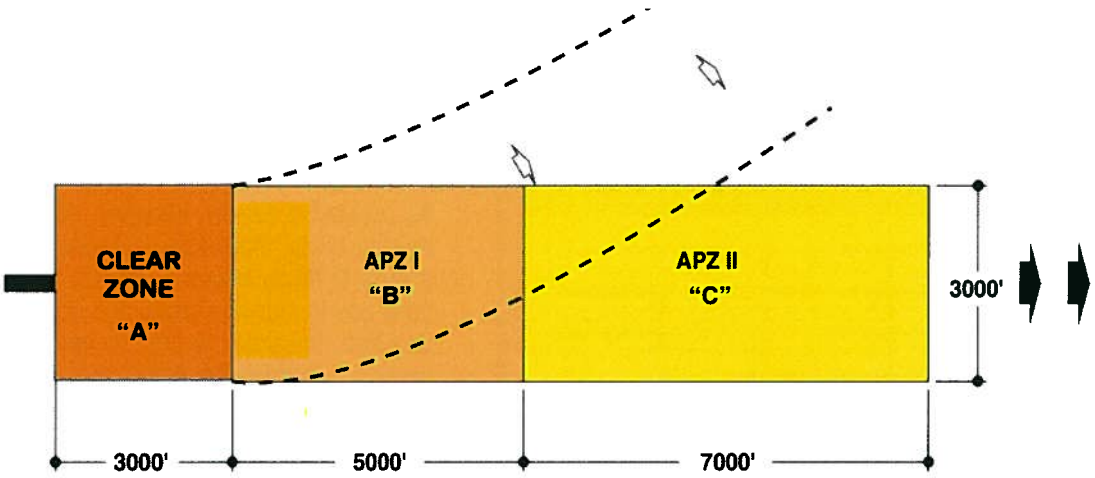


Figure 10-2: Clear Zone (Area "A") and Accident Potential Zones (APZs) I and II (Areas "B" and "C", respectively)



CLASS "B" RUNWAY

Typical Locations of Clear Zones and Accident Potential Zones (APZs I and II).

with the upwind direction or the runway best aligned with the upwind direction. Likewise, takeoff direction does not always align with the intended departure direction, resulting in left or right turns shortly after takeoff in order to enter the departure pattern. APZ boundaries will bend to acknowledge left and right turning movements used to align with departure or landing patterns. Most APZ-I "B" and APZ-II "C" boundaries curve for this reason.

Landing and takeoff patterns differ between helicopters and fixed-wing aircraft because of their separate aerodynamic requirements. Having a greater dependence on wind direction, helicopters takeoff and land facing oncoming wind. Flight paths for helicopters will vary with changes in the direction of the wind. APZ boundaries for helicopters may be aligned with prevailing or normal wind conditions. Fixed-wing aircraft are limited to a runways course, making flight path more predicate. Boundaries and size of APZ vary from airport to airport to address field conditions as well as unique and separate needs differentiating helicopters and fixed-wing aircraft. At Eglin AFB, most APZ boundaries and designations (i.e., APZ-I "B" and APZ-II "C") established for Eglin Main runways were specifically designed for fixed-wing military needs. APZ boundaries and designations for the airfield are attributed to flight characteristics and historical experiences for fixed-wing aircraft.

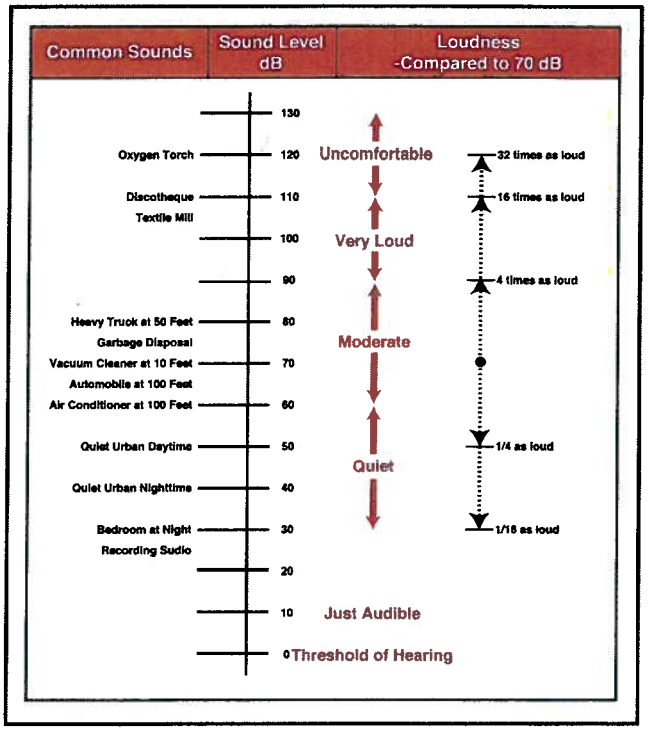
10.2.3 Airfield Noise

In addition to addressing safety concerns, the AICUZ also addresses noise exposure to non-military lands near military installations. Noise exposure can create conflicts with public welfare and quality of life for those living or working near airfields. Noise level contours extending from the airfield are incrementally measured from the highest typical decibel (dB) generated within a military installation to 65 dB within non-military property. For the Eglin AFB JLUS, the future aircraft (F-35) is not located at Eglin at this time so the AICUZ does not include noise levels associated with the F-35. In order for this study to be based on useful and applicable information, it was determined this study would utilize noise levels available from the Air Force for the proposed F-35 in lieu of using F-15 noise levels which will be obsolete in the coming years.

Noise contours are delineated by computerized simulation of aircraft activity at each installation and integrate operational data specific to the types of aircraft using a particular airfield. The methodology used to identify noise counters takes into consideration flight paths, frequency and time of operation, as well as the type and mix of aircraft. The noise contours utilized in this study were provided by the Air Force. The scope of this study does not include manipulating the computer simulation to adjust noise contours.

At the time of this report, the Air Force is developing the curriculum and finalizing the process 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 for Alternate 2 provides the maximum mission noise contours in the City of Niceville and, therefore, will be the noise contours used for analysis. *Figure 10-3* shows the Airfield Noise associated with the two F-35 alternatives with a one-half mile buffer shown across all of

Okaloosa County. *Figure 10-4* shows the specific noise contours associated with F-35 maximum mission noise



Source: Handbook of Noise Control, C.M. Harris, McGraw-Hill Book Co., 1979, and Ref. E5

Typical A-weighted Levels of Common Sounds

contours in Niceville.

10.2.4 Impulse Noise

According to the RAICUZ, some areas on Eglin AFB and beyond the reservation boundary are subject to increased levels of impulse, or explosive, noise. 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*. Each noise intensity level indicates the potential for humans to notice the noise and/or be annoyed.

The City is included in the *Moderate Intensity - Less Frequent Impulse Noise* area and a portion of the southern end of the City is located within the *Higher Intensity - Greater Frequency Impulse Noise* area. The extent of the two different levels of impulse noise on the City is shown in *Figure 10-5* .

10.2.5 Low Level Helicopter and Tiltrotor Training

Helicopters and tiltrotors conduct training operations within the low altitude tactical navigation area (designated as *Helicopter and Tiltrotor Low Level Training Area)* as shown in *Figure 10-6* across Okaloosa County which includes all of Niceville.

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 Eglin and associated fields and ranges.

10.2.6 Height of Objects

Based on information provided in the RAICUZ, 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. 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 landingsystems (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

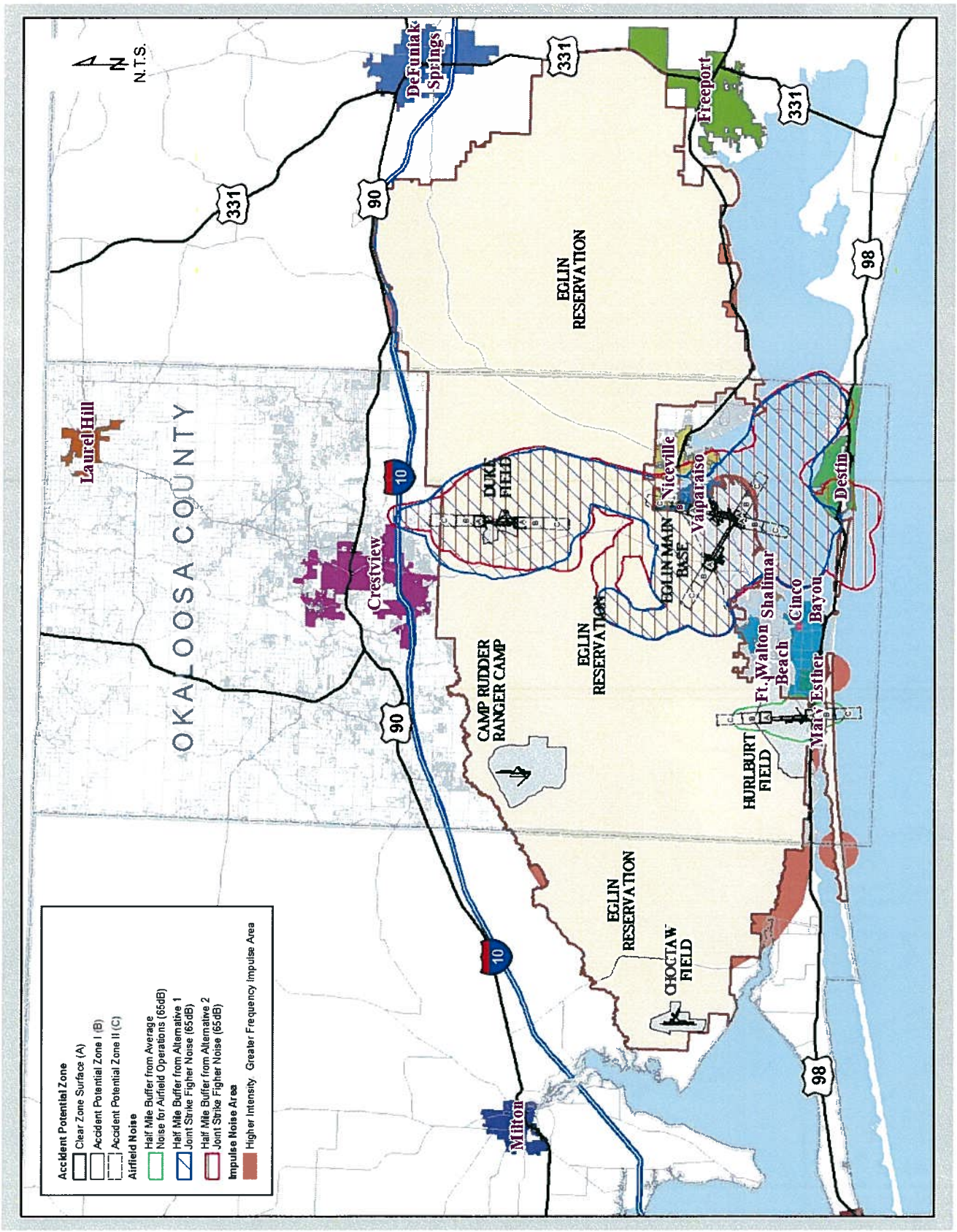


Figure 10-3: F-35 Alternates 1 and 2 High Level Noise Zones (>65 dB) With One-half Mile Buffer

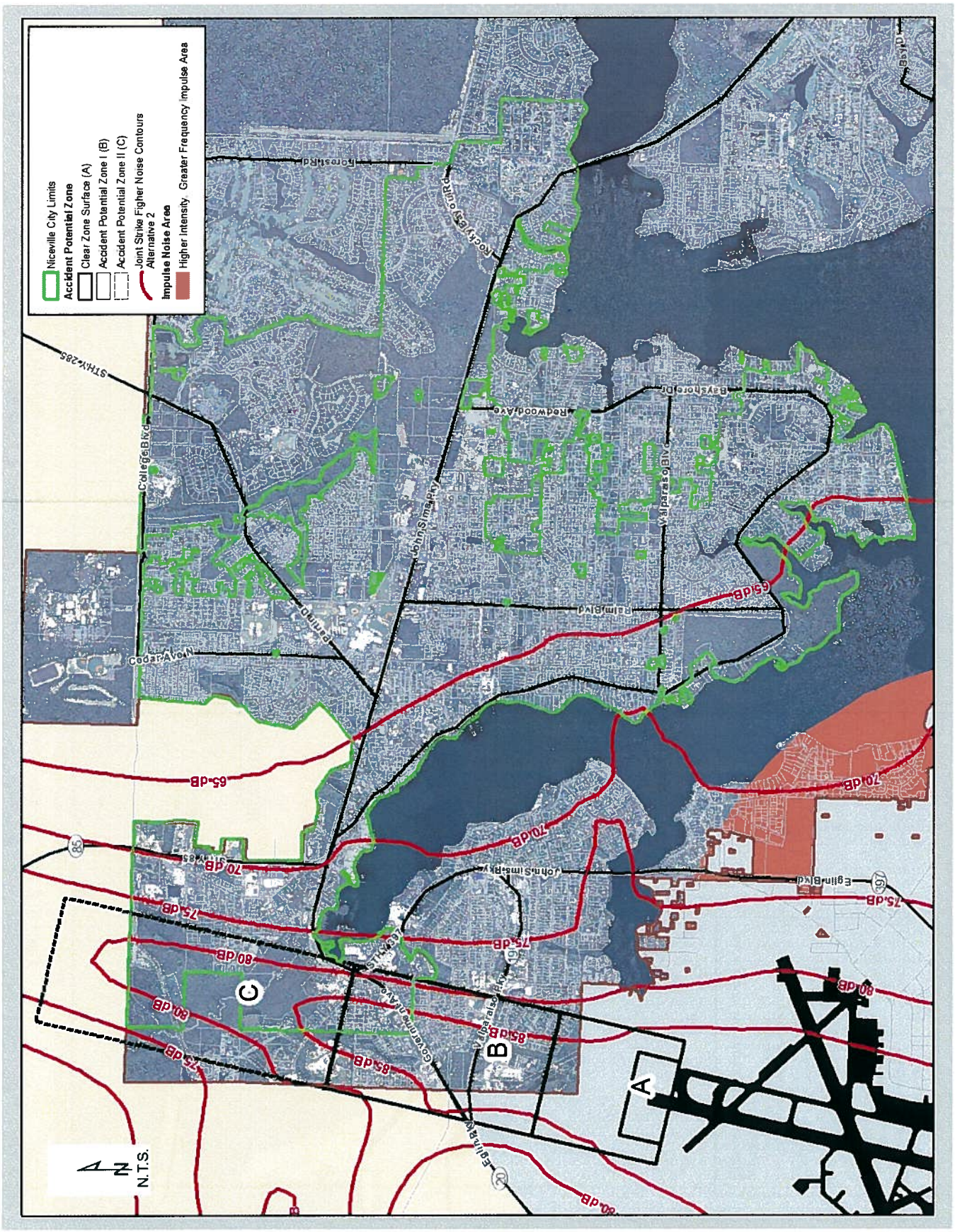


Figure 10-4: F-35 Maximum Mission Noise Contours in Niceville

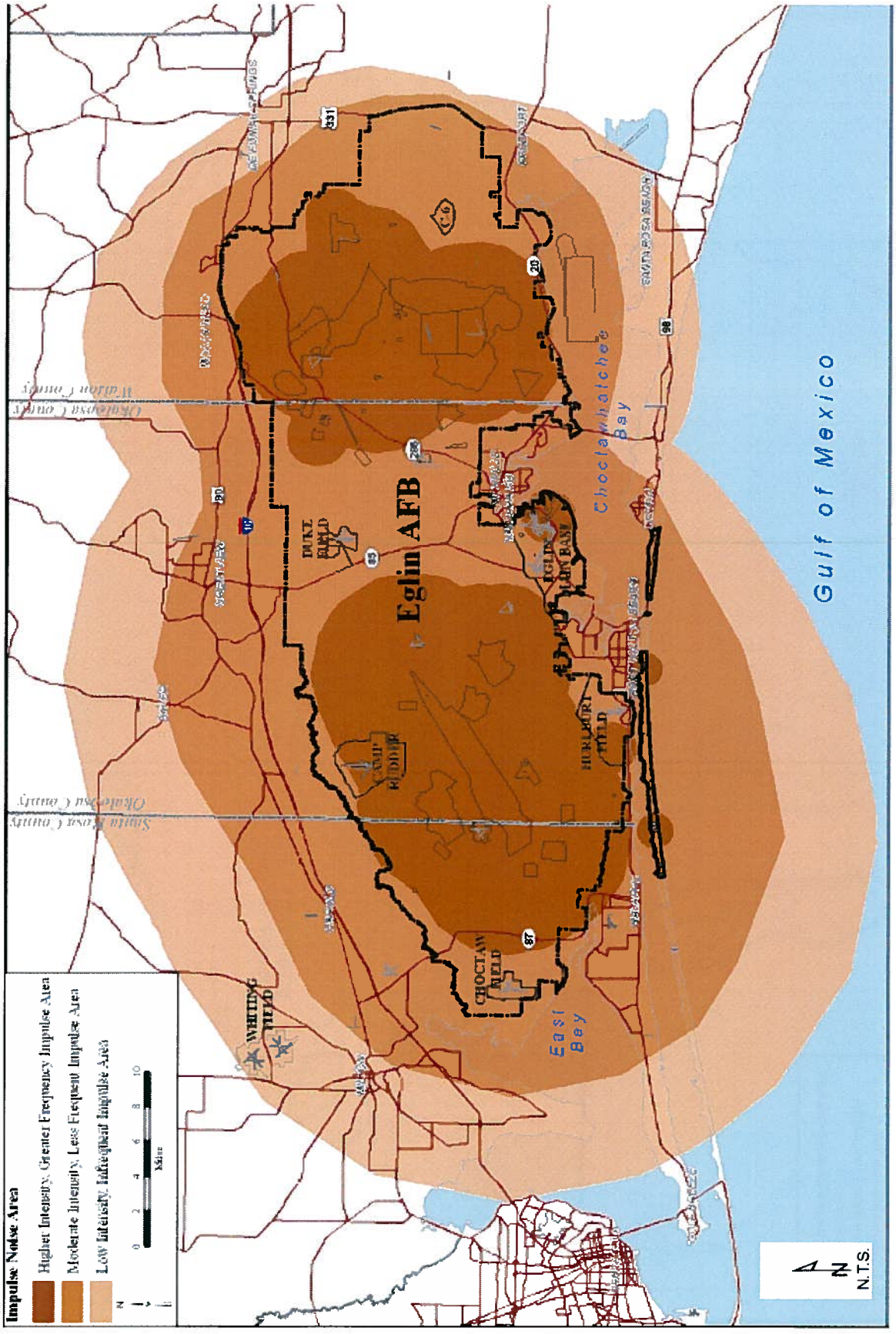


Figure 10-5: Impulse Noise Areas

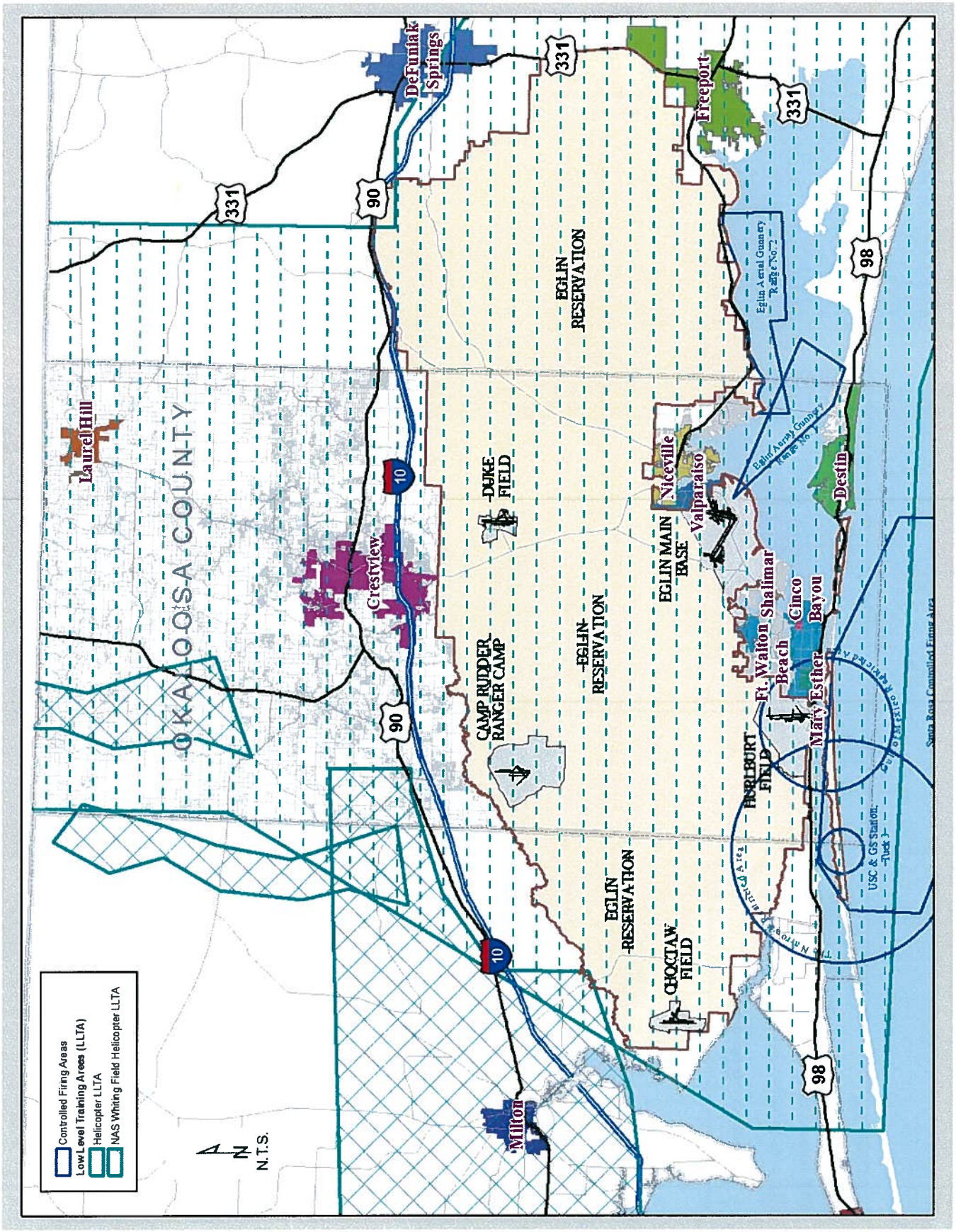


Figure 10-6 Low Level Helicopter and Tiltrotor Training Areas Across Okaloosa County

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.

In May 2006, the Air Force conducted a Building Height Study for the Southern Region of Okaloosa County to help ensure there were no navigation problems. *Figure 10-7* identifies the maximum building heights resulting from this study.

10.2.7 Night Vision Training

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 (Santa Rosa County Commissioners, 2003). 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 1st Special Operations Wing. 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 10-8* shows the increase in artificial lighting that is visible from satellites. It is clearly evident that the amount of lights is increasing with population. Based on information in the RAICUZ, the Niceville/Valparaiso area's sky glow viewed from the nearest point on the Eglin reservation is estimated to be almost 17 times what would occur naturally.

10.2.8 Radio Frequency Interference

According to the RAICUZ, radio frequency is an additional element related to land use compatibility. 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 following are specific frequencies and the devices that emit the frequencies capable of causing the most serious encroachment.

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 (Giangrosso, 2006).

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.

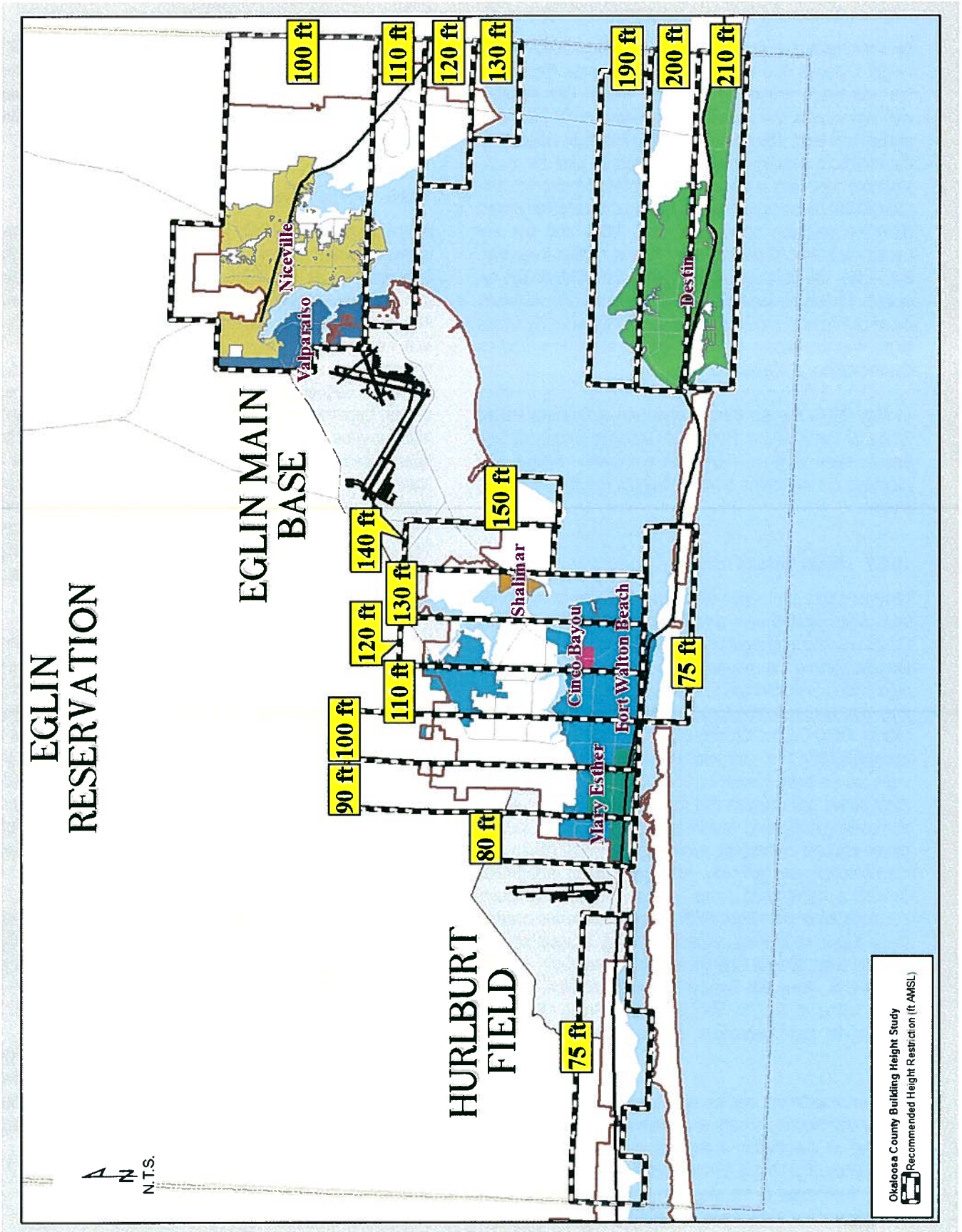


Figure 10-7 Okaloosa County (South) Building Height Study (Air Force 2006)

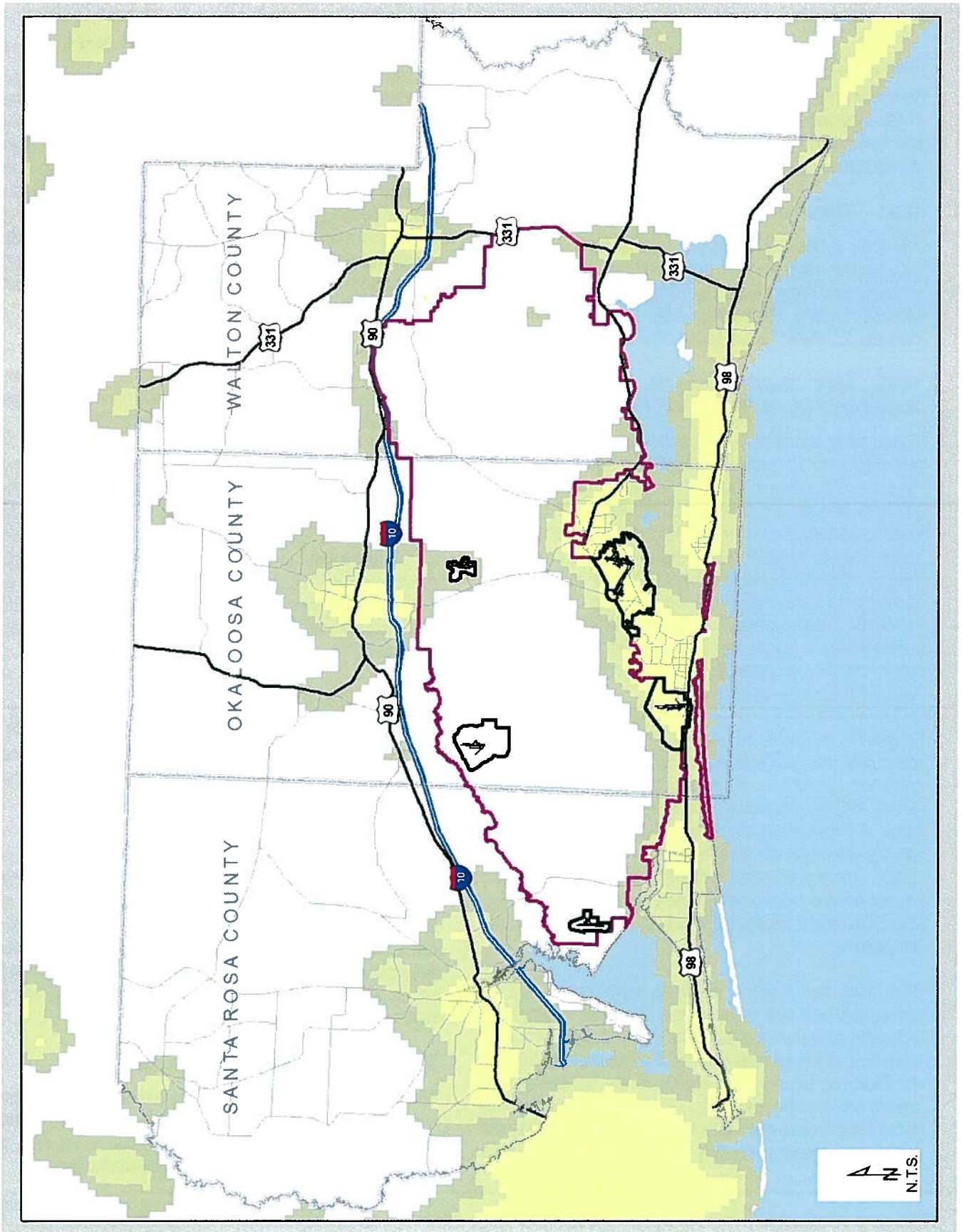


Figure 10-8: Visible Increases In Artificial Lighting From Satellite Imagery: Year 2000 (grey) Compared With 1992-93 (yellow) (Source: NOAA)

10.3 ANALYSIS

To facilitate the analysis of land use for the issues identified in the previous section, the City's Existing Land Use Map and Future Land Use Map are provided in *Figures 10-9* and *10-10*, respectively.

10.3.1 Eglin Perimeter Boundary Development

The area of the City within one mile of Eglin's boundary includes the entire northern portions of the City. This area currently has Future Land Use Designations of Industrial, Medium Density Residential, Low Density Residential, Commercial, Public Lands, Mixed Use and Conservation.

10.3.2 Land Uses/Structures in Accident Potential Zones I and II (Areas "B" and "C", respectively)

Figure 10-11 shows the APZs I and II with existing land use and *Figure 10-12* provides the APZs I and II with future land use. As shown in *Table 10-1*, approximately 93 acres (31%) of non-military lands inside the APZs are undeveloped or included in environmentally sensitive areas. Approximately 20 acres of which are in APZ I and 73 acres in APZ II. Residential development amounts to 167 single family or multi-plex residences, housing approximately 416 residents. Approximately 40% of the residents (or 166) reside in APZ I. Single Family Residential Land ownership within the APZ is presently established in small parcels typically 1/4 acre or less in size.

In general, industrial, recreational, vacant, and agricultural/ open land uses are compatible with the safety criteria established for APZ I. Compatibility of commercial uses within APZ I is dependent on densities and intensity of uses. A large area of low density residential area with densities greater than one dwelling unit per acre exists in APZ I and II. There is one church parcel in the APZ II that would be considered incompatible, however, it appears only the church parking lot is located within the APZ II boundary, not the building.

Population and housing estimates were determined by comparing land use records from Okaloosa County with statistical data from the 2000 US Census. Statistical data pertaining to the average number of persons per household for Okaloosa County were applied to the number of estimated occupied housing units. Occupancy rates for Okaloosa County were applied to the total number of residential units documented in the City to obtain occupied housing unit figures.

10.3.3 Incompatible Uses in High Noise Areas

Figures 10-11 and *10-12* also show the proposed noise contours with the existing land use and future land use map, respectively. As shown in *Table 10-2*, approximately 983 acres of non-military lands are located inside the high noise area (greater than 65dB). Residential development includes approximately 958 single family or multi-plex residences covering approximately 295 acres. Other existing incompatible land uses within the high noise areas include approximately 6 churches (10 acres), 1 public school (Edge Elementary), 1 public building (Okaloosa School District Office), and 1 hospital (Twin Cities Hospital).

Residential land ownership within the high noise areas is presently established in small parcels average approximately 1/3 acre in size. Current population in the high noise areas is estimated at approximately 2,385 persons.

Population and housing estimates were determined by comparing land use records from Okaloosa County with statistical data from the 2000 US Census. Statistical data pertaining to the average number of persons per household for Okaloosa County were applied to the number of estimated occupied housing units. Occupancy rates for Okaloosa County were applied to the total number of residential units documented in the City to obtain occupied housing unit figures.

10.3.4 Impulse Noise

The nature of the impulse noise in the City is in the moderate to high ranges as previously shown in *Figure 10-5*. The effects in these areas is minimal on property owners and therefore does not include a detailed land use analysis.

10.3.5 Low Level Helicopter and Tiltrotor Training

The low level helicopter and tiltrotor training area covers the entire city limits and as a result influences a broad range of land uses. The result of land use in this area may be perceived as a temporary nuisance resulting from low level helicopters and tiltrotors flying overhead and the temporary sound and vibration increases associated with low flying helicopters and tiltrotors.

10.3.6 Radio Frequency Interference

The analysis for radio frequency interference in the City is a simple one. The entire City lies within the 50-mile buffer from Eglin which the Air Force has identified as the area of influence with respect to radio frequency interference.

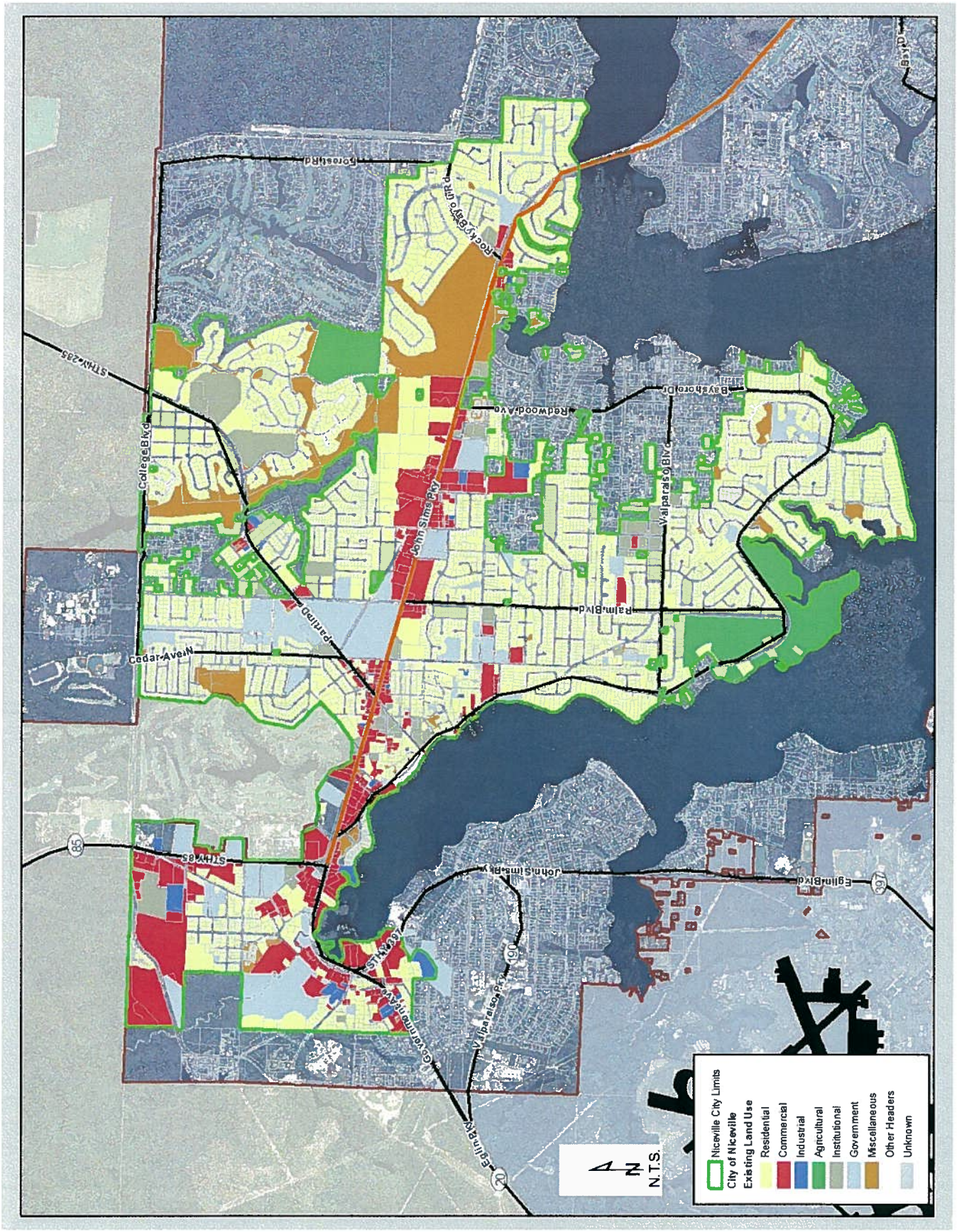


Figure 10-9: Niceville Existing Land Use Map

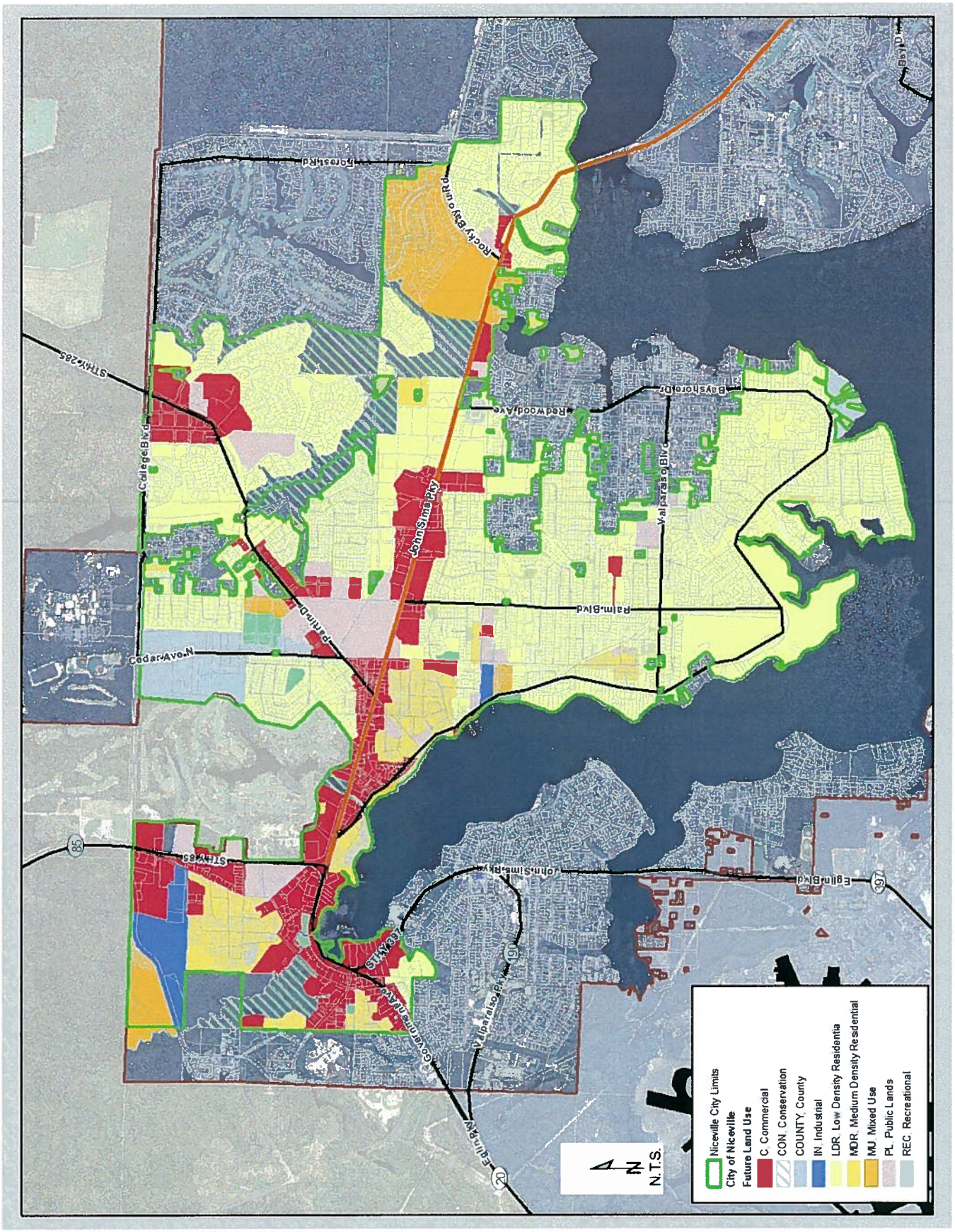


Figure 10-10: Niceville Future Land Use Map

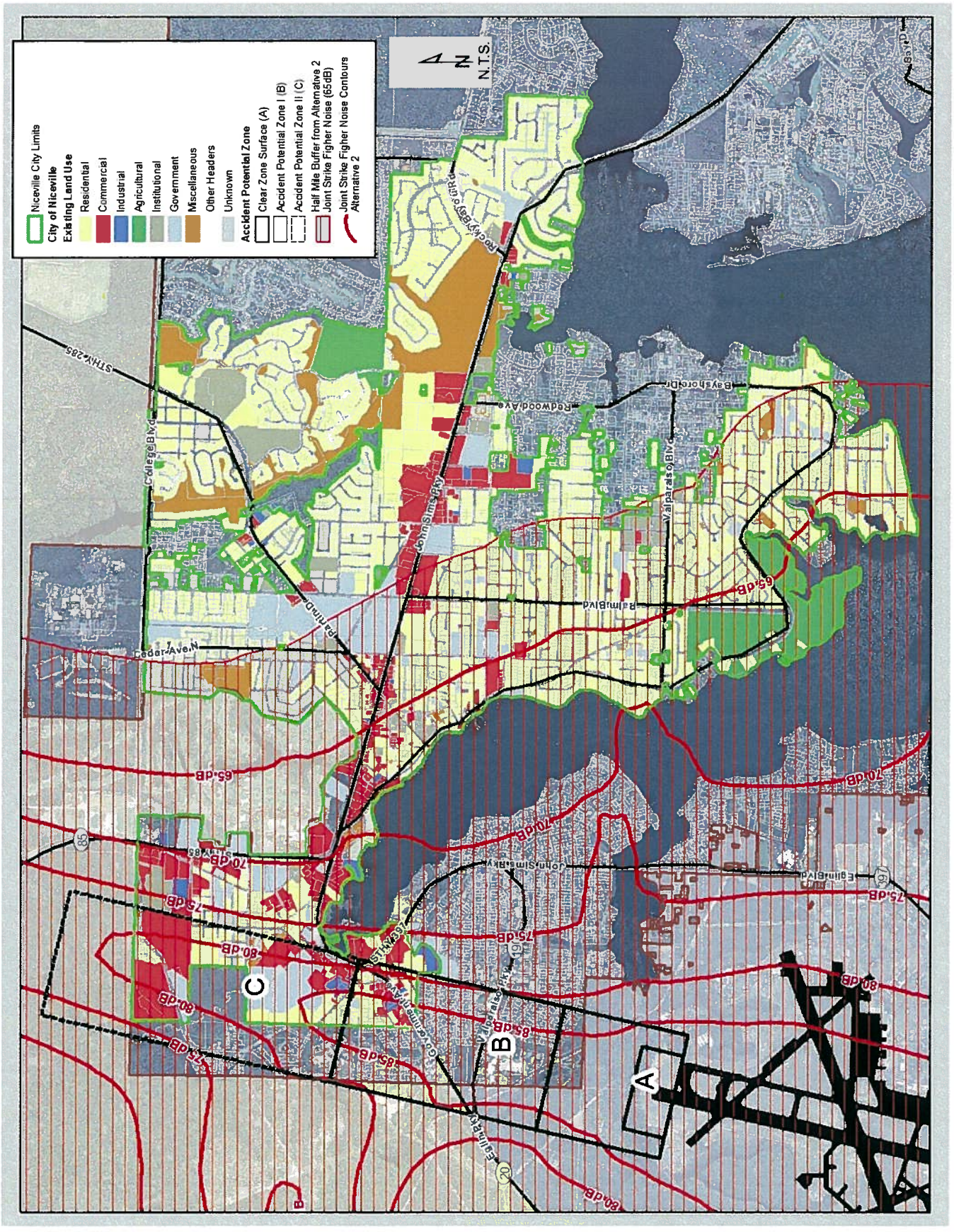


Figure 10-11: F-35 Maximum Mission Noise Contours With One-Half Mile Buffer shown on Niceville Existing Land Use Map

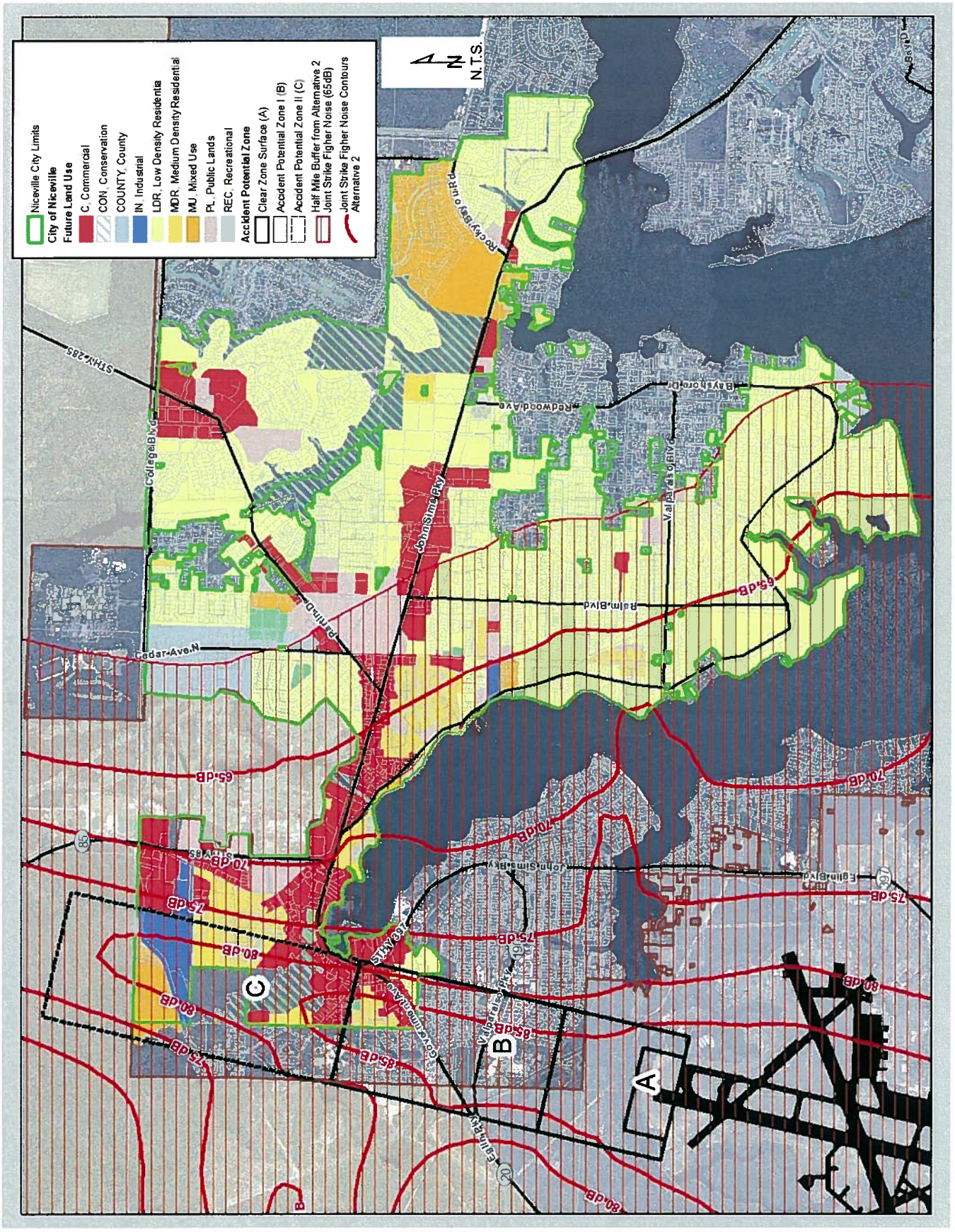


Figure 10-12: F-35 Maximum Mission Noise Contours With One-Half Mile Buffer on Niceville Future Land Use Map

Existing Land Use	Clear Zone and Accident Potential Zones											
	Clear Zone (Area A)			APZ I (Area B)			APZ II (Area C)			Total		
	Total Acres	% of Total Acreage	# of Parcels	Total Acres	% of Total Acreage	# of Parcels	Total Acres	% of Total Acreage	# of Parcels	Total Acres	% of Total Acreage	# of Parcels
Churches	0	0	0	0	0%	0	0.91	0%	1	0.91	0%	1
Commercial Unlimited	0	0	0	2.88	7%	8	0	0%	0	2.88	1%	8
Common Area/Community	0	0	0	0.38	1%	1	3.47	1%	1	3.85	1%	2
County	0	0	0	0	0%	0	0.59	0%	2	0.59	0%	2
Header Rec	0	0	0	0.36	1%	1	0	0%	0	0.36	0%	1
Hotels and Motels	0	0	0	0	0%	0	2.18	1%	3	2.18	1%	3
Light Manufacturing	0	0	0	1.32	3%	1	0	0%	0	1.32	0%	1
Mobile Home	0	0	0	0.19	0%	1	0	0%	0	0.19	0%	1
Multi-Family	0	0	0	5.9	14%	18	8.75	4%	4	14.65	5%	22
Municipal	0	0	0	1.14	3%	2	49.91	21%	8	51.05	18%	10
Nightclub	0	0	0	0	0%	0	0.3	0%	1	0.3	0%	1
Office Building	0	0	0	5.78	13%	7	0.33	0%	1	6.11	2%	8
Office Com	0	0	0	0.11	0%	5	0	0%	0	0.11	0%	5
Professional Office	0	0	0	0.16	0%	1	60.84	26%	3	61	22%	4
Repair Service Shop	0	0	0	0.62	1%	2	0	0%	0	0.62	0%	2
Restaurant	0	0	0	0.48	1%	2	0.77	0%	3	1.25	0%	5
Single Family	0	0	0	13.14	30%	46	20.38	9%	74	33.52	12%	120
Single Family - Townhome	0	0	0	0	0%	0	0.76	0%	19	0.76	0%	19
State	0	0	0	0.33	1%	2	0	0%	0	0.33	0%	2
Store/SFR	0	0	0	0.48	1%	1	0	0%	0	0.48	0%	1
Stores, 1	0	0	0	1.06	2%	3	0.64	0%	2	1.7	1%	5
Vacant	0	0	0	6.88	16%	20	80.08	34%	73	86.96	31%	93
Vehicle Sales	0	0	0	0.26	1%	1	2.45	1%	3	2.71	1%	4
Warehouse	0	0	0	1.76	4%	3	4.16	2%	3	5.92	2%	6
Total				43.23	100%	125	236.5	100%	201	279.75	100%	326

Table 10-1: Existing Land Use Development Within Clear Zone (Area A) and Accident Potential Zones I and II (Areas B and C, respectively) in the City of Niceville

Existing Land Use	65-69 dB			70 - 74 dB			75 - 79 dB			80 - 84 dB			85+ dB			Total		
	Total Acres	% of Total Acre-age	# of Par-cels	Total Acres	% of Total Acre-age	# of Par-cels	Total Acres	% of Total Acre-age	# of Par-cels	Total Acres	% of Total Acre-age	# of Par-cels	Total Acres	% of Total Acre-age	# of Par-cels	Total Acres	% of Total Acre-age	# of Parcels
Beauty Parlor	0.3	0%	2													0.3	0%	2
Churches	7.02	1%	9	2.38	2%	3							0.91	2%	1	10.31	1%	13
Clubs/Lodging	0.97	0%	2													0.97	0%	2
Commercial Unlimited													2.88	8%	8	2.88	0%	8
Common Area/Community	9.89	2%	9	2.74	2%	4	7.41	5%	4				0.38	1%	1	20.42	2%	18
Condominia	13.6	3%	16													13.6	1%	16
County	0.03	0%	1							0.59	0%	2				0.62	0%	3
Financial - Bank	0.25	0%	1													0.25	0%	1
Header Rec	0.85	0%	1										0.36	1%	1	1.21	0%	2
Hotels and Motels	5.23	1%	3				0.98	1%	1	1.2	1%	2				7.41	1%	6
Light Manufacturing	0.5	0%	1	5.93	4%	1							1.32	3%	1	7.75	1%	3
Lumber Yard	1.44	0%	1													1.44	0%	1
Military	4.83	1%	1													4.83	0%	1
Mobile Home	0.12	0%	1				0.31	0%	1				0.19	1%	1	0.62	0%	3
Multi-Family	5.9	1%	25	4.73	3%	11	1.58	1%	5	11.01	7%	9	2.83	7%	9	26.05	3%	59
Municipal	16.62	3%	17	8.66	6%	6	4	3%	3	49.91	34%	8	1.14	3%	2	80.33	8%	36
Nightclub	0.5	0%	1				0.3	0%	1							0.8	0%	2
Office Building	2.81	1%	11	10.13	7%	7	7.92	5%	3	1.21	1%	2	4.57	12%	5	26.64	3%	28
Office Com													0.11	0%	5	0.11	0%	5
Parking Lot	1.21	0%	2													1.21	0%	2
Private Hospital				14.11	10%	2	0.51	0%	1							14.62	1%	3
Professional Office	1.27	0%	2	7.8	5%	5	60.84	40%	3	0.16	0%	1				70.07	7%	11
Repair Service Shop										0.62	0%	2				0.62	0%	2
Restaurant	5.52	1%	5	5.58	4%	6	1.17	1%	4	0.48	0%	2				12.75	1%	17
School, Private	1.01	0%	1													1.01	0%	1
School, Public	5.97	1%	1	13.83	10%	6										19.8	2%	7
Single Family	193.1	38%	557	17.13	12%	53	21.78	14%	64	12.21	8%	54	14.89	39%	44	259.11	26%	772
Single Family - Townhome	3.84	1%	46	4.41	3%	32	0.96	1%	24	0.28	0%	7				9.49	1%	109
State	6.69	1%	3	1.41	1%	3	0.49	0%	1	0.33	0%	2				8.92	1%	9
Store/Office	0.18	0%	2													0.18	0%	2
Store/SFR							2.84	2%	2	0.48	0%	1				3.32	0%	3
Stores, 1	4.63	1%	9	3.49	2%	3	4.39	3%	4	1.29	1%	3	0.19	1%	1	13.99	1%	20
Supermarket	1.33	0%	2	0.49	0%	1										1.82	0%	3
Timberland	120.5	24%	4													120.5	12%	4
Transit TE	6.25	1%	2													6.25	1%	2
Vacant	79.15	16%	143	34.09	24%	41	32.54	21%	67	62.03	42%	31	6.04	16%	16	213.85	22%	298
Vehicle Sales	1.95	0%	2	4.08	3%	6	0.4	0%	1	1.87	1%	1	0.84	2%	3	9.14	1%	13
Warehouse	0.16	0%	1	2.88	2%	1	5.32	3%	1	4.61	3%	4	1.31	3%	2	14.28	1%	9
Total	503.6	100%	884	143.9	100%	191	153.7	100%	190	148.3	100%	131	37.96	100%	100	987.47	100%	1496
Total Percentages	51%		59%	15%		13%	16%		13%	15%		9%	4%		7%	100%		100%

Table 10-2: Breakdown of Existing Land Use Designations Within High Noise Levels in City of Niceville

10.4 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 to the City on land use and related land use policies and procedures with definitive direction and in some cases, applicable examples from across the US successfully implemented.

The following summarize the recommendations for the City. Some of the recommendations require further information beyond the following summary bullets and additional detail is provided at the end of this section for the City's use:

- **NCV 1:** Implement Construction Standards for New Construction to provide Noise Level Reduction Inside Structures Proposed Within Maximum Mission Noise Areas (>65 dB)
- **NCV 2:** Implement Effective Disclosure Procedures Notifying Buyers and Leasers that Property is Near a Military Installation subject to Low Level Aircraft, Impulse Noises, and/or Other Military-Related Issues Identified
- **NCV 3:** Implement Lighting Ordinance to Avoid Glare and Reflection
- **NCV 4:** Distribute Education Handouts Materials Provided by Eglin AFB to Developers and Builders on Radio Frequency Interference
- **NCV 5:** Implement Public Awareness Measures Through Environs Signage, Website Links, and Educational Handouts
- **NCV 6:** Identify APZ I and II and High Noise Zones (> 65 dB) Low Level Approach Zones and Cruise Missile Corridors on All City Maps, Preliminary Plats and Public Reports and Require Developers To Identify Same Information on All Proposed Projects
- **NCV 7:** Study Required Implementation Steps to Retrofit Existing Public Buildings Within the High Noise Level Areas (>65 dB) with Sound Attenuation
- **NCV 8:** Study Required Implementation Steps to Develop Retrofit Program for Sound Attenuation for Habitable Buildings in High Noise Level Areas (>65 dB)
- **NCV 9:** Develop Land Acquisition Program
- **NCV 10:** Formalize Policy to Include Military Participation and Cross-Jurisdiction Coordination in Development Review and Planning Process
- **NCV 11:** Limit Object Heights Regarding Potential Conflicts With Eglin AFB Missions and Operations
- **NCV 12:** Establish Military Influence Area (MIPA) Zoning Overlay District Creating MIPA designations (I, II, or III) based on the compatibility issues Identified. The different MIPA designations proposed are shown in *Table 10-3* and are summarized as follows:
  - MIPA-I: Focused on addressing compatibility issues in the clear zone, APZ I, and APZ II (existing MIPA-I: Focused on addressing compatibility issues in the clear zone, APZ I, and APZ II (existing AICUZ). The locations of MIPA-I's are at the end of runways and are not recommended for all jurisdictions participating in this study.
  - MIPA-II: Identified to address compatibility issues related to aircraft noise and high frequency impulse noise. For this study, MIPA-II's related to aircraft noise focus on the maximum mission noise contours associated with the JSF. MIPA-II's are not recommended for all jurisdictions participating in this study.
  - MIPA-III: Related to Low Level Approach Areas for aircraft approaching the Eglin Reservation and strategic buffer areas along the northern boundary of the Eglin Reservation. MIPA-III's are focused on limiting density, object height, and nighttime light encroachment. The distance beyond the boundary for the Low Level Approach MIPA-III's vary but, where recommended, the MIPA-III areas for the

Military Influence Planning Area (MIPA) Designation	Geographic Vicinity					
	CZ	APZ I	APZ II	Max Mission Aircraft Noise & Impulse Noise	Low Level Approach &/ or Cruise Missile Corridor	0.5-1.0 mi Buffer
I	■	■	■			
II				■		
III					■	■

Th

Table 10-3: Proposed MIPA Designations for Eglin JLUS (not all MIPA's apply to every jurisdiction).

buffers are approximately one mile from the Eglin boundary.

Figure 10-13 shows the location of the MIPA designations in Niceville.

- **NCV 13:** Update City's Comprehensive Plan and Land Development Code to Include Specific Language Designed to Strengthen the City's Compatibility Position on Proposed Developments, Land Use Amendments and/or Other Related Change Requests

Additional Implementation Information for Some of the Recommendations. The following information provides additional details with implementation steps and/or examples for the City's use:

NCV 1: Noise Level Reducing Construction Standards. The City's building construction standards or requirements for development order approval through ordinance adoption or revisions should incorporate construction techniques improving noise insulation for residential and certain non-residential structures within the high noise level areas (>65dB). New construction for residential properties, public or quasi-public service buildings, or public assembly facilities proposed within the MIPA-II should be required to include sound insulation to reduce noise levels by at least 25 dB between 65 – 70 dB DNL contours and by at least 30 dB between 70 – 75 dB DNL contours.

Appendix A – New Construction Acoustical Design Guide includes examples of adopted guidelines for new construction to follow in an effort to insulate residences and other uses from aircraft noise. No residential development should be allowed (even with noise reduction) in areas with noise contours exceeding 75 dB DNL. Noise insulation construction standards can be reduced or waived for a parcel when residential development is shown to be clustered or located outside of maximum mission noise areas (>65 dB). Proposed developments should be required to provide acoustical standards or studies for developments within MIPA-II showing the noise level reduction associated with the sound attenuation proposed.

NCV 2: Implement Effective Disclosure Procedures. The disclosure of aircraft Clear Zone and APZs and aircraft and high intensity impulse noise is a preventive strategy and important tool informing and forewarning prospective buyers or tenants of the expected impacts of an installation's interaction with neighboring communities. Mandatory disclosure ensures prospective homebuyers and leasers are knowledgeable about military operations and its potential impact on the community, subsequently reducing frustration and anti-military sentiment by those not adequately informed prior to entering into their purchase or rental agreement. This recommendation includes developing more effective disclosure procedures and broadens the geographical area where disclosure will be required as part of property transactions. Disclosure requirements should include all properties (residential and non-residential) within the Clear Zone, APZ I and II, and maximum mission and higher intensity impulse noise areas.

Appendix C – Example Noise Disclosure Statement provides an example disclosure statement for consideration and use in implementing this recommendation.

Property owner disclosure regarding the potential for safety and noise hazards requires development and adoption of an ordinance establishing requirements for the disclosure to foster more practical implementation and enforcement. More important is establishing the effective use of the disclosure in real world situations. The following recommendations are included as part of delivering a disclosure ordinance recommendation with practical implementation in mind:

◊ Adopt ordinance including real estate disclosure requirements for deeds, building permits, preliminary subdivision plats (information on the final plat is dictated by Florida Statute), property purchases, renters, resort properties, and new and existing home sales including sales by owner, builder, and developer.

◊ Notify all existing property owners in the Clear Zone and APZ I and II by certified mail of their current situation as owners of property within one or more of the areas. Specifically identify the areas related to each parcel owner. Following completion of the Supplemental EIS, notification of all property owners by certified mail owning property in high noise level areas (>65 dB) should also be completed.

◊ Encourage participating local jurisdictions to join in a concerted lobbying effort of the Florida Association of Realtors, Santa Rosa County Association of Realtors, Emerald Coast Okaloosa/Walton Association of Realtors to include sections concerning Safety and Noise on the standard Seller's Real Property Disclosure Statement endorsed by each respective group.

◊ Encourage participating local jurisdictions to join in a concerted lobbying effort encouraging state lawmakers to strengthen Florida Statute, Chapter 475 to require mandatory disclosure of properties within the Clear Zone, APZ I and II, and high level noise areas.

◊ Seek assistance from the West Florida Regional Planning Council or other professionals of participating local

jurisdictions to incorporate the disclosure statement requirements into a local ordinance and lobbying efforts with other participating local jurisdictions.

- ◊ Conduct public information meetings on the disclosure requirements. At a minimum, one meeting prior to the first reading of the ordinance and a second meeting following the adoption of the ordinance. The meetings would be in addition to the public meetings where the ordinances will be read and discussed with public comment periods.
- ◊ Require identification of the Clear Zone, APZ I, APZ II, High Noise Level Areas (>65dB), and High Intensity Impulse Noise Areas on all County maps and public reports and require developers to identify the areas on all proposed projects.
- ◊ Require sales offices used to market, sell, or lease properties, including pre-construction sales, which will be constructed or leased on lots located in a MIPA, must display a map in public view illustrating military installation property boundaries, and MIPA areas. This display requirement shall also apply to temporary realty sales offices. Pamphlets illustrating the same information appearing on the display map on paper not less than 8.5"x11" shall also be made available and placed in public view.

NCV 3: Implement Lighting Ordinance. Evaluate and update outdoor lighting standards applicable to MIPA areas or all unincorporated areas. Ground lighting, glare, and/or reflection should not interfere with an aviator's vision or with night vision instrumentation or equipment. Outdoor lighting should also not cause pilot confusion with landing approach flight patterns. Lighting standards need to promote compatibility with aircraft operations within the vicinity of airfields and night vision training areas. In addition, over time, lighting should not create a condition to impact *dark skies* over the Eglin Reservation.

Many of the following measures will not only reduce light encroachment on Eglin maneuver areas and ranges, but should also avoid light trespass on neighboring property, reduce dangerous glare to motorists, and save energy.

Community Wide Measures:

- ◊ Turn-off un-needed lights, e.g. unused parking lots
- ◊ Use appropriate levels of illumination
- ◊ Prevent illumination of unintended areas by using full-cutoff fixtures (luminaries which prevent illumination above the horizontal plane)

Further restrictions are warranted in the vicinity of airfields, e.g., lights that could be confused with airfield approach lighting; lights that create glare and thereby interfere with pilots' night vision.

Santa Rosa County has developed a lighting ordinance that sets additional requirements in Military Airport Zones (MAZ). The MAZ is similar to a MIPA in the form of an overlay district providing regulatory measures and zoning standards to achieve land use compatibility and protection of public health and safety in the areas exposed to impacts generated by military flight or ground activities occurring at, near, or above military airports. For Naval Air Station Whiting Field North and South, and for Naval Outlying Landing Fields (NOLFs) Spencer, Harold, Santa Rosa, Holley, and Pace, the MAZ boundaries extend one half mile from the perimeter of each airfield and encompass all Air Installation Compatible Use Zones (AICUZ) and noise zones. For NOLF Choctaw, MAZ boundaries encompass an area bounded by the Yellow River to the north, Eglin AFB to the east, East Bay to the west, and the East Bay River to the south.

Santa Rosa County prohibits the following in a MAZ:

- ◊ Light patterns common to military aviation
- ◊ Lights to create sky glow (except when used for safety, security, and utility)
- ◊ Luminous tube lighting on building exterior or roof
- ◊ Internally lit awnings
- ◊ External illumination for signs

The County sets the following guidelines inside a MAZ:

- ◊ Minimal illumination necessary
- ◊ No outdoor lighting to illuminate golf courses/driving ranges, athletic fields/courts
- ◊ Parking lot light poles cannot exceed 24 feet above the adjacent grade; they must be fully shielded and use low-pressure sodium light fixtures
- ◊ Non-residential parking lots lighting must be turned off within one-hour of closing and turned on no sooner than one hour prior to opening

Appendix I – Example Military Area / Dark Skies Lighting Ordinances provides two examples of implementing outdoor lighting standards. In some cases, the example lighting ordinances provided include requirements to retrofit existing lighting to comply with *dark skies* initiatives. At this time, an ordinance addressing future new development and redevelopment is recommended as a means to avoid glare and reflection. A retroactive ordinance requiring existing property owners to meet a *dark skies* ordinance is not recommended.

NCV 5: Implement Public Awareness Measures. Through

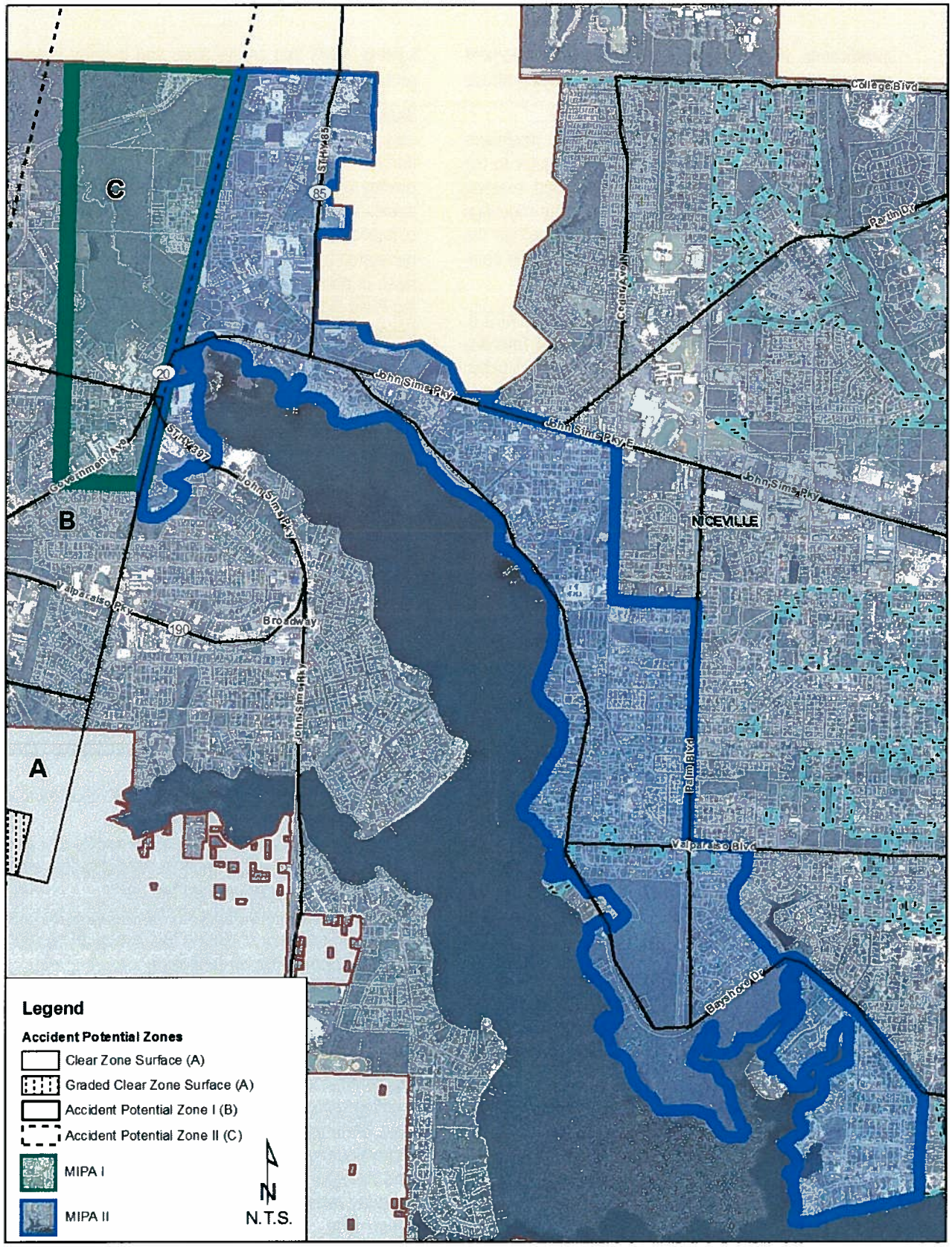


Figure 10-13 Proposed MIPA Designations in City of Niceville

a variety of information vehicles, the public (existing and future) can be made aware of Eglin AFB and its operations and community impacts both from physical and economic perspectives. Examples of measures to be taken include:

- Post signage in areas screened from airfields and other military operations. The intent of this recommendation serves to notify visitors or prospective homeowners or renters to the presence of aircraft and related noise, high intensity impulse noise, and/or low flying aircrafts typically found in an APZ. Trees, vegetation, or terrain screen airfields from many areas near airfields and military operations are not always in effect 24 hours a day, 7 days a week.
- Provide links on the City's website to maps showing Clear Zones, Accident Potential Zones, high level aircraft noise zones, high intensity impulse noise areas, and MIPAs.
- Distribute maps showing Clear Zones, Accident Potential Zones, high level aircraft noise zones, high intensity impulse noise areas, and MIPAs to local libraries, real estate offices, county offices, airports, community buildings, and other locations existing and prospective residents and business owners frequent.

NCV 7: Retrofit Public Buildings Within 65dB and Greater Sound Contour With Sound Attenuation. There are two public buildings within the maximum mission high noise level areas (>65dB) of the maximum mission noise contours in Niceville-Edge Elementary School and an Okaloosa School District office.

Based on the impact this noise level has within the public buildings, it is recommended a further study to determine the highest and best means to retrofit the buildings with noise attenuation elements such as insulation, windows, and associated items. Specific objectives should include a Noise Level Reduction (NLR) range based on the exposure of noise. The NLR is used to describe the reduction of environmental noise sources, such as aircraft and is a singe-number metric based on values of A-weighted noise reduction (NR). For noise zones between 65 – 70 dB, a 25 dB NLR is recommended. In the 70 -75 dB range of noise contours, a 30 dB NLR should be achieved. A minimum NLR of 35 for other compatible uses should be achieved for areas above the 75 dB noise contour.

Edge Elementary School is recommended to be retrofitted with sound attenuation.

NCV 8: Develop Retrofit Program for Sound Attenuation of Existing Occupied Buildings in High Noise Level (>65 dB) Areas. In an effort to alleviate high sound levels within existing structures, it is recommended to study a development and implementation Assistance Program for sound reduction for private property owners to retrofit existing structures through efforts similar to those described in the previous sub-section for retrofitting existing public buildings. The goal for this program would include achieving noise reductions within dwellings and other structures in areas where the maximum mission noise contours exceed 65 dB. Specific objectives should include a Noise Level Reduction (NLR) range based on the exposure of noise. The NLR is used to describe the reduction of environmental noise sources, such as aircraft and is a singe-number metric based on values of A-weighted noise reduction (NR). For noise zones between 65 – 70 dB, a 25 dB NLR is recommended. In the 70 -75 dB range of noise contours, a 30 dB NLR should be achieved. Noise areas exceeding 75 dB are not compatible for residential uses so a NLR for residential use above this noise contour is not recommended. A minimum NLR of 35 for other compatible uses should be achieved for areas above the 75 dB noise contour.

The DNL noise reduction goal in habitable rooms can be supplemented by a single-event noise level criterion. This Sound Exposure Level (SEL) reflects the annoyance associated with individual flyovers because of activity interference. The SEL goal is 65 dB in general living spaces and 60 dB in bedrooms and television viewing rooms. These criteria should only be applied to homes within the maximum mission noise contours (>65 dB), not to homes outside the 65 dB DNL contour line. To use the SEL interior noise criteria, the outside noise exposure level is compared to the interior goal. For example, if a dwelling were between the SEL contour boundaries of 85 to 90 dB, then the required NLR to achieve 60 dB in a bedroom would be 30 dB with the conservative upper bound of the noise zone typically used to set NLR goals.

The proposed NLR Assistance Program should include the creation of a grant program designed to reimburse property owners within the high noise level areas (>65 dB) of the maximum mission noise contours up to a certain dollar amount or percentage of costs for implementing acceptable sound attenuation steps. The program should be voluntary and include the execution of a Hold Harmless Agreement by the property owner. *Appendix B – Noise Reduction Standards for Insulating Structures Exposed to Aircraft Operations* contains two examples of policies and procedures available to guide the recommended NLR Assistance Program.

NCV 9: Develop Land Acquisition Program. Through the adoption of the recommendations and proposed implementation steps contained herein, there is opportunity to continue conservation efforts by the Northwest Florida Greenway Corridor, The Nature Conservancy, Northwest Florida Water Management District, Florida Department of Environmental Protection, and federal agencies to purchase conservation lands in the APZ I and II, and within the maximum mission noise contours. There are also opportunities to acquire parcels beyond the jurisdictional wetland and sensitive environmental habitat areas within APZ I and II and those parcels should be pursued on a voluntary basis for purchase. As part of this program, potential funding sources should be identified and alternative mechanisms to fee simple purchase explored such as restrictive use easements, land exchanges, and transfer of development rights. Prepare a Land Acquisition Plan organized with projected costs for acquisitions to be programmed into the five-year capital improvement fund. The Plan should quantify impacts to changes to tax revenue resulting from the land acquisition program. Once the Plan's acquisition strategies are adopted, it is important to document the planning efforts completed and adopted to date such as the Eglin JLUS and the recommendations implemented to date in order to maximize grant scoring opportunities.

NCV 10: Formalize Policy for Military Participation and Cross-Jurisdiction Coordination in Development Review and Planning Process. Formalize a policy to include military participation in its development review and planning process. This should include a formal communication process between the City and Eglin AFB to ensure appropriate parties are engaged in reviewing information pertaining to proposed developments or planning issues upon receipt of an application, or more preferably as part of a pre-application meeting. This requires a definitive approach to working with developers from their initial contact with City staff regarding their prospective plans through to presentations to policy makers such as the Planning Commission and City Council. A key component of this recommendation is ensuring the opportunity for different jurisdictions to communicate amongst themselves is provided as part of the coordination effort.

To facilitate the cross communication of the jurisdictions with Eglin AFB, it is recommended the JLUS Technical Advisory Group (TAG) remain and communicate development activities and planning efforts across jurisdictions to the TAG and Eglin AFB. The TAG should include active participation from each jurisdiction and appropriate representatives from Eglin AFB including those responsible for coordinating activities associated with Eglin Main, Eglin Reservation and Range (including Choctaw Field, Camp Rudder, and Duke Field), Hurlburt Field, Site C-6, and 7th Special Forces Group.

NCV 12: Establish Different MIPA Designations. Establishing Military Influence Areas (MIPAs) as geographic planning areas established to help local governments integrate a local military's presence and missions with a comprehensive picture of the community's future. A MIPA recognizes the existence and mission of a military installation within a community or region and can include, but shall not be limited to:

- Protect the health, safety, and welfare of the public
- Maintain the installation's mission(s)
- Promote an orderly transition and rational organization of land uses
- More accurately identify areas affected by military operations
- Create compatible mix of land uses

Table 10-4 at the end of this section has been created based on the existing issues, baseline analysis, and industry standards regarding joint land use between military installations and private lands. This table and *Table 10-5* - Implementation Plan Responsibilities and Timing, are intended to further guide the City into implementing the recommended strategies.

NCV 13: Update City's Comprehensive Plan and Land Development Code to Include Specific Language Designed to Strengthen the County's Compatibility Position on Proposed Developments, Land Use Amendments and/or Other Related Change Requests. There are potential military impacts on civilian land, facilities, and citizens. There are also potential civilian impacts on military operations. The section of the Future Land Use Element that addresses such issues could be called the Military Influenced Area (MIPA) Subelement. Following is an outline of typical issues that might be described in the MIPA Subelement: Data Inventory and Analysis. Only those military facilities and operations impacting the designated MIPA within the local government should be discussed.

Comprehensive Plan Military Encroachments Element Data Inventory and Analysis

-Describe Military Missions and Operations Impacting Local Government:

- Facilities Impacting Community: Airfield (Eglin Main, Hurlburt, Duke, Camp Rudder, Choctaw) or Range
- Type Activity/Operation (Flights Arriving-Departing Specific Runway and Type of Aircraft)

- Drop Zone/Gunnery Range/Other operations, tests or maintenance
- Character of Impact on Civilians and Civilian Property (Noise in Flight, Impulse Noise; Public safety threatened, Limited use of land or Structure, Secondary impacts: Impacts to Health)
- Timing & severity of impacts

-Describe Civilian Land Use and Activities Encroaching on Military Operations and possible remedial actions after considering the JLUS analysis, recommendations, and local discussion and interaction with the military representatives. Land uses within the following would be of consideration:

- Clear Zone
- Accident Potential Zone I
- Accident Potential Zone II
- Noise Contours in decibels: ≥65-69; 70-74; 75-84; ≥85
- Cruise Missile Corridors
- Supersonic Corridor SW of SW portion of AFB
- Restricted Areas and Danger Zones Off-Base: such as Drop Zones, Eglin Aerial Gunnery Ranges, etc.

-Tall structures and potential height thresholds needed within the following areas (with reference maps):

- Clear Zone and APZ I & II
- FAA & Military Approach/Departure Height Thresholds
- Military Training Routes
- Low Level Training Area Routes: Fixed Wing & Helicopters
- Restricted Areas for Controlled Firing & Drops/Danger Zones Off-Base
- Obstructions to Lines of Sight: ex: Terminal Instrument Procedures Routes (TERPS)

-Outdoor Lighting

-Electronic transmissions over the 5.4 to 5.9 GHz bandwidth of RF spectrum adversely impacts operations.

Comprehensive Plan Military Influence Area Subelement Goals, Objectives, and Policies- Possible Goals to Consider and Adapt to Local Conditions:

- Region's Role and Function in the Nation's Defense and the Northwest Florida Economy: Promote the national defense and cultivate continuance of Eglin AFB's role and function as a major contributor to the nation's defense and the Northwest Florida economy while enhancing the economy of Santa Rosa, Okaloosa, and Walton Counties and its municipalities.

- Coordination, Partnerships, and Management Initiatives to Promote Land Use Compatibility: Enhance land use compatibility within Santa Rosa, Okaloosa, and Walton Counties and its municipalities by coordinating, forming partnerships, and management initiatives to ensure long-term viability of Eglin AFB's role, functions, and missions in the nation's defense and the Northwest Florida Region's economy while protecting the quality of life within the three-county area.

- Partnering to Preserve Quality of Life and Resource Conservation: Preserve the Northwest Florida Region's natural resources, by partnering to promote funding for land acquisition/land easements to conserve major sensitive environmental corridors identified in the such as the Northwest Florida Greenway, land generally east of the Blackwater River floodplain west of the Yellow River, the floodplain of the Shoal River, Choctawhatchee River and other high priority conservation areas identified in the Sustainable Emerald Coast Plan.

Identify Objectives for Resolving Encroachment Issues Described in the Data Inventory and Analysis. This section should identify encroachment issues to be resolved and an implementation schedule.

Identify Policies to Implement Each Objective, including:

-Amendments to Comprehensive Plan Future Land Use Map, if any

-Amendments to Regulatory Land Use Controls:

- Possible Implementing Rezonings
- Establish Military Influenced Lands (MIPA) Zoning Overlay District:
  - Permitted, Conditional, and Prohibited Land Uses (Address Incompatible Densities, Places of Assembly, Location of More Intense Development
  - Height Regulations
  - Outdoor Lighting Regulations
  - Development Review Procedures:
    - Ex-Officio Military Representation on Planning Board
    - Early Notification
    - Effectuating Timely Participation and Response
    - Conflict Resolution Mechanisms
- Subdivision Regulations Establishing Incentives for Clustered Development Removed from Severe Impacted Land
- Restrict Use Of Radio Frequency Spectrum
- Bands 5.4 -5.9 Ghz

- on Items Such As Wireless Lan & Microwave Cordless Devices Incl. Garage Door Openers
- Special Issues
- Small Area Land Use Studies
- Public Awareness
- Web-Site Public Awareness
- Public Notice Requirements In Development Review Process
- Identify When Moa Impacted
- Street Signage (Military Operations Area)
- Inform Public of Noise Zone Revisions
- Property Disclosure on Document Advertising or Transferring Ownership of Impacted Property Located in CZ, APZ, and Noise Influenced Areas.
- Revisions to Construction Standards to Address Noise Attenuation
- Land Acquisition, Land Swaps, Easement Acquisitions to Address Enclaves on Civilian Lands on the Eglin Reservation or Military Owned Lands Off-Base.
- Collaborative Efforts to Mitigate Issues with Eglin AFB
- Revisions to Instrumentation and/or Physical Orientation
- Procedural Efforts to Improve Advance Planning for Development & Conservation:
  - Early Notification
  - Effectuating Timely Participation and Response
- Funding for Implementation

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Military Influence Planning Area (MIPA) Designation	Description	Noise Zone (dB LDN)	Residential: Single Family (Detached)[1]	Single Family (Attached)	Multi-Family	Mobile Home Parks or Courts	Other Residential Uses[2]	Manufacturing: Food & Kindred Products	Textile Mill Products	Apparel Products	Lumber/Wood Products	Furniture & Fixtures	Paper & Printing	Chemical Products	Petroleum Refining Industries	Rubber & Plastic Products	Stone, Clay & Glass	Primary Metal Products	Fabricated Metal Products	Scientific/Optical Instruments	Misc Manufacturing
MIPA-I	Clear Zone (CZ)	65-69																			
		70-74																			
		75-79																			
		80-84																			
		85+																			
	Accident Potential Zone I (APZ I)	65-69							(0.28)	(0.28)	(0.28)	(0.28)	(0.28)								(0.28)
		70-74							(0.28)[9]	(0.28)[9]	(0.28)[9]	(0.28)[9]	(0.28)[9]								(0.28)[9]
		75-79							(0.28)[10]	(0.28)[10]	(0.28)[10]	(0.28)[10]	(0.28)[10]								(0.28)[10]
		80-84							(0.28)[11]	(0.28)[11]	(0.28)[11]	(0.28)[11]	(0.28)[11]								(0.28)[11]
		85+																			
	Accident Potential Zone II (APZ II)	65-69	1					(0.56)	(0.56)	(0.56)	(0.56)	(0.56)	(0.56)				(0.56)	(0.56)			(0.56)
		70-74	1					(0.56)[9]	(0.56)[9]	(0.56)[9]	(0.56)[9]	(0.56)[9]	(0.56)[9]				(0.56)[9]	(0.56)[9]			(0.56)[9]
		75-79						(0.56)[10]	(0.56)[10]	(0.56)[10]	(0.56)[10]	(0.56)[10]	(0.56)[10]				(0.56)[10]	(0.56)[10]			(0.56)[10]
		80-84						(0.56)[11]	(0.56)[11]	(0.56)[11]	(0.56)[11]	(0.56)[11]	(0.56)[11]				(0.56)[11]	(0.56)[11]			(0.56)[11]
		85+																			
MIPA-II	High Noise Level Areas (>65 dB DNL)	65-69	9	9	9		9														
		70-74	10	10	10		10	9	9	9	9	9	9	9	9	9	9	9	9	9	9
		75-79						10	10	10	10	10	10	10	10	10	10	10	10	10	10
		80-84						11	11	11	11	11	11	11	11	11	11	11	11	11	11
		85+																			
MIPA-II	Low Level Approach Areas and Eglin AFB Buffer Boundary		TO BE DETERMINED																		

MIPA Designation	Description	Noise Zone (dB LDN)	Transportation: Rail/Rapid Rail Transportation	Motor Vehicle Transportation	Aircraft & Marine Transportation	Highway/Street Right-of-way	Automobile Parking	Communication	Utilities	Other	Trade: Wholesale Trade	Building Mat'ls, Hardware, Equip Retail	General Merchandise Retail	Food Retail Trade	Automotive/Marine/Aircraft Retail Trade	Apparel & Furniture Retail Trade	Eating & Drinking Establishments	Other Retail Trade
MIPA-I	Clear Zone (CZ)	65-69																
		70-74																
		75-79																
		80-84																
		85+																
	Accident Potential Zone I (APZ I)	65-69	6		6		6	9, 12	6	9, 12	(0.28)[3]	(0.14)[3]			(0.14)[3]			
		70-74	6	9	6	9	6	10, 12	6, 9	10, 12	(0.28)[3, 9]	(0.14)[3, 9]			(0.14)[3, 9]			
		75-79	6	10	6	10	6	11, 12	6, 10	11, 12	(0.28)[3, 10]	(0.14)[3, 10]			(0.14)[3, 10]			
		80-84	6	11	6	11	6		6, 11		(0.28)[3, 11]	(0.14)[3, 11]						
		85+																
	Accident Potential Zone II (APZ II)	65-69						9, 12		9, 12	(0.56)[4]	(0.28)[4]	(0.14)	(0.24)[4]	(0.28)[4]	(0.28)[4]		(0.22)[4]
		70-74	9	9	9	9	9	10, 12	9	10, 12	(0.56)[4, 9]	(0.28)[4, 9]	(0.14)[9]	(0.24)[4, 9]	(0.28)[4, 9]	(0.28)[4, 9]		(0.22)[4, 9]
		75-79	10	10	10	10	10	11, 12	10	11, 12	(0.56)[4, 10]	(0.28)[4, 10]	(0.14)[10]	(0.24)[4, 10]	(0.28)[4, 10]	(0.28)[4, 10]		(0.22)[4, 10]
		80-84	11	11	11	11	11		11		(0.56)[4, 11]	(0.28)[4, 11]						
		85+																
MIPA-II	High Noise Level Areas (>65 dB DNL)	65-69																
		70-74	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
		75-79	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
		80-84	11	11	11	11	11		11		11	11						
		85+																
MIPA-II	Low Level Approach Areas and Eglin AFB Buffer Boundary										TO BE DETERMINED							

MIPA Designation	Description	Noise Zone (dB LDN)	Services: General Office/Office Park & Personal Services (Office Use Only)	Cemetaries	Business Services	Warehousing/Storage/Dist'n Services	Repair Services	Professional Services	Hospitals & Nursing Homes	Other Medical Facilities	Contract Construction Services	Government Services (*additional evaluation required for each project*)	Educational Services	Miscellaneous Services	Cultural, Enterainment and Recreational: Nature Exhibits (*additional evaluation required for each project*)	Public Assembly	Cultural Activities, Churches, Auditoriums, Concert Halls	Outdoor Arenas, Music Shells, Amphitheaters	Amusements	Recreational Activities & Parks (*additional evaluation required for each project*)	Resorts & Group Camps (*additional evaluation required for each project*)	Other Cultural, Entertainment and Rec	Resource Production: Agriculture (except live stock)	Livestock Farming & Animal Breeding	Agriculture Related Activities	Forestry Activities & Related Services	Fishing/Mining/Other
MIPA-I	Clear Zone (CZ)	65-69																									
		70-74																									
		75-79																									
		80-84																									
		85+																									
	Accident Potential Zone I (APZ I)	65-69		7	(.011)[3]	(1.00)	(.011)[3]				(.011)[3]				3, 5					3, 5		3, 5	15	15	(0.28)[3,8,15]	(0.28)[3,8,15]	(0.28)[3,8]
		70-74		7, 9	(.011)[3, 9]	(1.00)[3, 9]	(.011)[3, 9]				(.011)[3, 9]									3, 5, 9		3, 5	16	16	(0.28)[3,8,16]	(0.28)[3,8,16]	(0.28)[3,8]
		75-79		7, 10	(.011)[3, 10]	(1.00)[3,10]	(.011)[3, 10]				(.011)[3, 10]									3, 5, 10			17		(0.28)[3,8,17]	(0.28)[3,8,17]	(0.28)[3,8]
		80-84		7, 11, 18		(1.00)[3,11,18]	(.011)[3, 11]																17, 18		(0.28)[3,8,17,18]	(0.28)[3,8,17,18]	(0.28)[3,8]
		85+		7, 13, 18		(1.00)[3,17,18]																	17, 18		(0.28)[3,8,17,18]	(0.28)[3,8,17,18]	(0.28)[3,8]
	Accident Potential Zone II (APZ II)	65-69	(0.22)[4]	7	(0.22)[4]	(1.00)	(0.22)[4]	(0.22)[4]			(0.22)[4]	(0.22)[4]		(0.22)[4]	3, 5				3	4, 5		4, 5	15	15	(0.28)[4,8,15]	(0.28)[4,8,15]	(0.28)[4,8]
		70-74	(0.22)[4, 9]	7, 9	(0.22)[4, 9]	(1.00)[4, 9]	(0.22)[4, 9]	(0.22)[4, 9]			(0.22)[4, 9]	(0.22)[4, 9]		(0.22)[4, 9]					3	4, 5, 9		4, 5	16	16	(0.28)[4,8,16]	(0.28)[4,8,16]	(0.28)[4,8]
		75-79	(0.22)[4, 10]	7, 10	(0.22)[4,10]	(1.00)[4,10]	(0.22)[4,10]	(0.22)[4,10]			(0.22)[4,10]	(0.22)[4,10]		(0.22)[4,10]						4, 5, 10			17		(0.28)[4,8,17]	(0.28)[4,8,17]	(0.28)[4,8]
		80-84		7, 11, 18		(1.00)[4,11,18]	(0.22)[4,11]																17, 18		(0.28)[4,8,17,18]	(0.28)[4,8,17,18]	(0.28)[4,8]
		85+		7, 13, 18		(1.00)[4,17,18]																	17, 18		(0.28)[4,8,17,18]	(0.28)[4,8,17,18]	(0.28)[4,8]
MIPA-II	High Noise Level Areas (>65 dB DNL)	65-69							9				9				9						15	15	15	15	
		70-74	9	9	9	9	9	9	10	9	9	9	10	9			10			9			16	16	16	16	
		75-79	10	10	10	10	10	10	11	10	10	10	11	10						10			17		17	17	
		80-84		11, 18			11																17, 18		17, 18	17, 18	
		85+		13, 18																			17, 18		17, 18	17, 18	
MIPA-II	Low Level Approach Areas and Eglin AFB Buffer Boundary																										

Legend:

- (red) Land use and related structures are not normally compatible and should be prohibited
- (yellow) Land use and related structures are generally compatible with noted restrictions
- (green) Land uses and related structures are nomally compatible without restrictions

(#.##) Indicates maximum Floor Area Ratio (FAR) for the land use identified

Notes:

1 Maximum Density: 1-2 du/acre
2 "Other Uses" includes apartments, group quarters, residential hotels, and transient lodging
3 Maximum of 25 occupants per acre and approval is subject to review.
4 Maximum of 50 occupants per acre and approval is subject to review.
5 No clubhouse
6 No accessory units - e.g., no passenger terminals and major above ground electrical transmission lines in APZ I
7 No chapels
8 No activity which produces smoke, glare, bird attractants, or involves explosives.
9 Measures to achieve NLR of 25 must be incoporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.
10 Measures to achieve NLR of 30 must be incoporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.
11 Measures to achieve NLR of 35 must be incoporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.
12 If project or proposed development is noise sensitive, use indicated NLR; if not, land use is compatible without NLR.
13 No buildings.
14 Land use compatible provided special sound reinforcement systems are installed.
15 Residential buildings require a NLR of 25.
16 Residential buildings require a NLR of 30.
17 Residenital buildings not permitted.
18 Land use not recommended, but if community decides use is necessary, hearing protection devices should be worn by personnel

Table 10-4: MIPA and Land Use Compatibiltiy Chart

ID #	Recommended Strategy	Eglin JLUS Page No.	MIPA-I	MIPA-II	MIPA-III	Tri-County Region	Other Area(s) - see description	Implementation Responsibility		Implementation Timing			
								Primary	Partner(s)	Short Term (0-2 years)	Near Term (2-5 years)	Long Term (5-15 years)	Ongoing
NCV 1	Implement Noise Level Reduction Construction Standards	10-23	√	√				City of Niceville	Eglin JLUS Policy Committee & TAG	√			
NCV 2	Establish and Implement Effective Disclosure Procedures	10-23	√	√		√		City of Niceville	Eglin JLUS Policy Committee & TAG	√			√
NCV 3	Implement Lighting Ordinance	10-25	√				√	City of Niceville	Eglin AFB, Eglin JLUS Policy Committee & TAG		√		
NCV 4	Distribute Educational Handouts on Radio Frequency	10-22				√		Eglin AFB	City of Niceville	√			
NCV 5	Implement Public Awareness Measures	10-25				√		City of Niceville	Okaloosa County, Eglin AFB, & Others				√
NCV 6	Identify APZs and High Noise Areas on Public Documents*	10-22	√	√				City of Niceville	Private Party Submittals	√			
NCV 7	Study Required Implementation Steps to Retrofit Existing Public Buildings Within the High Noise Level Areas (>65 dB) with Sound Attenuation	10-26	√	√				City of Niceville	Eglin JLUS Policy Committee & TAG		√		
NCV 8	Study Required Steps to Develop Retrofit Program for Sound Attenuation for Occupied Buildings in High Noise Level Areas (>65 dB)	10-26	√	√				City of Niceville	Eglin JLUS Policy Committee & TAG		√		
NCV 9	Study the Development and Implementation of a Voluntary Land Acquisition Program	10-26	√	√				City of Niceville	Northwest Florida Water Mgmt. District, FDEP, The Nature Conservancy, Eglin AFB, Private Property Owners, Others				√
NCV 10	Formalize Policy to Include Military Participation and Cross-Jurisdiction Coordination in Development Review & Planning Process	10-27				√		City of Niceville	Eglin JLUS Policy Committee & TAG	√			
NCV 11	Limit Object Heights Regarding Potential Conflicts	10-22	√				√	City of Niceville	Eglin AFB	√			
NCV 12	Establish Military Influence Area (MIPA) Zoning Overlay District Creating MIPA designations (I, II, or III)	10-27	√	√				City of Niceville	Eglin JLUS Policy Committee & TAG	√			
NCV 13	Update City's Comprehensive Plan and Land Development Code	10-27	√	√				City of Niceville	Eglin JLUS Policy Committee & TAG	√			

* Area shown for High Aircraft Noise shall be subject to change based on the results of the Supplemental BRAC EIS.

Table 10-5: Implementation Plan Responsibilities and Timing

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