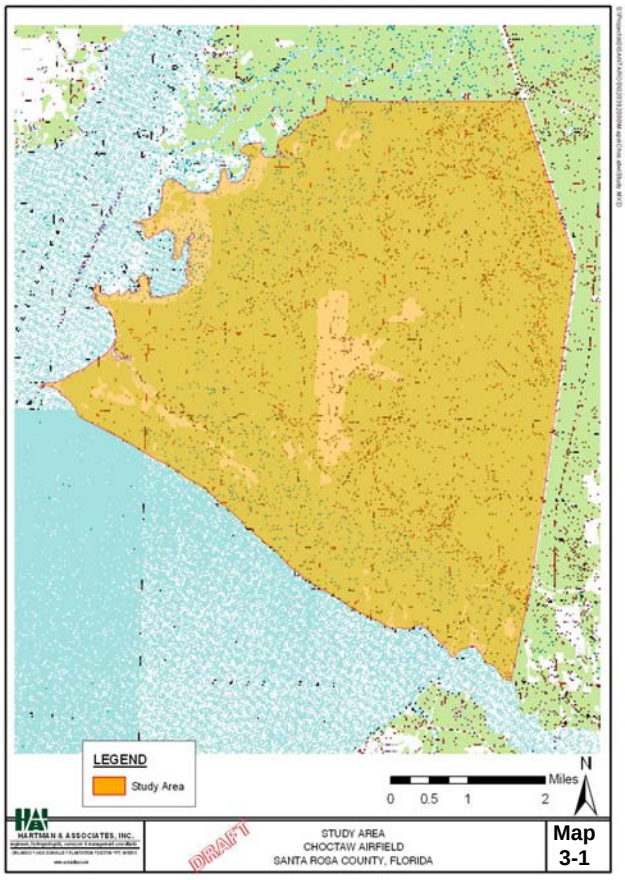
CHAPTER 3
NOLF CHOCTAW JLUS



Executive Summary

Primary Airfield Use	Fixed-wing prop and turbo-prop aircraft flight training and home of the unmanned aerial vehicle (UAV) Pioneer
Runway Capability	Fixed-wing jet, prop, or turbo-prop aircraft; UAV; rotary-wing
Time of Use	Day or night use; year-round
Other Uses	Blue Angel jet practice in Choctaw airspace; helicopter training; special forces training ops; field carrier landing practice (FCLP)
Planned Uses	JPATS solo airfield; expanded UAV training; armored vehicle maintenance on nearby Eglin Air Force Base.

	Current	**Potential**
Study Area Population	167	9,598

Study Area Issues and General Recommendations

Most areas north and east of the airfield cannot be developed because land is under public ownership. Land characteristics in south and west sectors exhibit great potential for land acquisition. Florida Forever projects have been developed to acquire most lands to the west and southwest. Current LDR land use designation assigned to property south of airfield promotes densities incompatible with current and future military activities. Access to large vacant parcels is only possible through Eglin Air Force Base property.

Recommendations emphasize land acquisition and land use density reduction focused on areas south of the airfield.

Chapter Contents

Note: with exception to Map 3-1 above, maps referenced in this chapter are placed in Appendix 3A located in the back of this chapter.

SECTION 1
INTRODUCTION AND STUDY BACKGROUND

1.1 Study Purpose

In 1973, the United States Department of Defense (DoD) created the Air Installation Compatible Use Zones (AICUZ) program to encourage local governments to manage growth and development in a manner compatible with present and future military installation operations. The program evaluates existing land uses, identifies potential conflicts between growth and military operations, and offers recommendations for compatible growth patterns. Program emphasis is placed on areas most susceptible to noise impacts and safety concerns associated with military operations. To accomplish this program objective, noise contours and accident potential zones have been established for all military airfields, including Naval Air Station (NAS) Whiting Field (North and South) and its fourteen Navy Outlying Landing Fields (NOLF) which includes NOLF Choctaw.

The Commanding Officer at NAS Whiting Field recognizes that any successful plan to realize compatible growth near airfields requires involvement by the Santa Rosa County Board of County Commissioners (BCC). While NAS Whiting Field can manage military activity at its airfields, the BCC holds authority to manage land use and development on properties outside of military installations and within unincorporated Santa Rosa County. By working together, mutually acceptable growth management strategies can be developed to avoid conflicts between NAS Whiting Field's mission and Santa Rosa County's desired growth patterns and quality of life.

This joint endeavor involves a two-step process. Once a joint land use study (JLUS) has identified compatible land uses and growth management guidelines, the second step will involve formation of specific development regulations and land management implementation programs. This report addresses the first step -- a joint land use study. All together, a JLUS has been prepared for seven (7) US Navy (USN) airfields (North and South combined) and the County Airport, Peter Prince Field. These eight (8) separate and distinct studies comprise the Santa Rosa JLUS. The seven (7) USN installations evaluated in the Santa Rosa JLUS are NAS Whiting Field (North and South) and six (6) of its fourteen (14) NOLFs; Choctaw, Harold, Holley, Pace, Santa Rosa, and Spencer. This chapter addresses only NOLF Choctaw.

1.2 NOLF Choctaw Location

NOLF Choctaw is located approximately two (2) miles east and north of East Bay and two (2) miles west of State Road 87. Access to the field is from State Road 87. The general location of NOLF Choctaw as well as its proximity to other airfields in Santa Rosa County is shown in Map 1-1 of Chapter 1. Situated approximately thirteen (13) miles south-southeast of NAS Whiting Field, NOLF Choctaw's location places it on Eglin Air Force Base property but underneath Navy-managed airspace. The US Navy has a long-term agreement with the US Air Force to use NOLF Choctaw on condition that it is used for flight training. NOLF Choctaw is located at the southwestern edge of Eglin Air Force Base.

1.3 Choctaw Study Area

The study area boundaries for NOLF Choctaw JLUS (hereafter Choctaw Study Area) are illustrated on Map 3-1, which is located in the first page of this chapter. The Choctaw Study Area covers 29 square miles south of the Yellow River and east and north of East Bay. All property within the Choctaw Study Area is situated within unincorporated Santa Rosa County and not within any municipal boundaries.

The Choctaw Study Area includes all areas adjacent to military property specifically designated as Accident Potential Zones or located within Noise Level Contours, both of which were established by the existing Air Installation Compatibility Use Zones (AICUZ) study for NOLF Choctaw. To take into consideration lands outside the AICUZ that may also be affected by military operations, study boundaries were expanded to encompass non-military lands generally located two and one-half miles from the airfield. The study area boundary was adjusted to utilize natural features, such as rivers or waterbodies, near its perimeter.

The NOLF Choctaw JLUS presented in the chapter emphasizes evaluation of non-military lands within its study area boundaries. The largest in geographical size among the eight study areas, Choctaw Study Area covers 18,816 acres, or approximately 29 square miles. Only 5,497 acres compose non-military property. Acreage for the Choctaw Study Area is shown in Table 3-1 according to study area components. Note that acreage for the total study area will not equal a summation of its components. This anomaly occurs because some areas in the Noise Level Zone overlap with the Accident Potential Zone, creating a double counting of acreage if sub-categories are added together. Also note that both current and proposed Noise Level Zones are evaluated in this chapter. Noise counters for NOLF Choctaw are being evaluated by NAS Whiting Field.

Table 3-1
Study Area Components

Component	Acres
Total Study Area (Map 3-1)	*18,816*
Non-Military Property	*5,397*
Noise Level Zone (Current)	471
Noise Level Zone (Proposed)	669
Clear Zone/Accident Potential Zone	1,065
Clear Zone "A"	0
APZ-I "B"	491
APZ-II "C"	574
Military	*13,419*

A. **Clear Zones (Class B)** Aviation history has shown that property along primary flight paths and immediately beyond the ends of runway have a higher potential exposure to aircraft accidents than areas further out from an airfield or flight path. 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 that possesses a high potential for accidents and is located just past the end of a runway. It has been labeled "A" to enable easier depiction on maps.

B. **Accident Potential Zones. (CLASS B)** 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.

Accident Potential Zones (APZ's) 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". 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's I and II may curve away from the end of a runway 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. Figure 3-1 in Appendix 3B provides a diagram further describing the organization and application of APZs for helicopters and fixed-wing aircraft.

NOLF Choctaw operates as a multi-use airfield capable of serving fixed-wing (i.e., airplanes) and rotary-wing (i.e., helicopter) aircraft. Fixed-wing aircraft must use runways for landing and take-off. Both Fixed wing and rotary wing aircraft typically arrive or depart an airfield facing into the wind. The APZ designations (Class B airfield) for NOLF Choctaw are larger than those associated with NAS Whiting Field and NOLF Holley which are considered Class A airfields. Helicopter traffic is a small percentage of the total traffic and helicopter APZ's are not designated for this NOLF. Flight paths for helicopters taking-off or landing will vary based on wind direction and air traffic. Operating procedures established by NAS Whiting Field direct helicopters to arrive or leave the field on a north or south pattern under normal weather or air traffic conditions. Based on wind direction or air traffic, the helicopter flight paths may not always overlap with the designated APZ.

C. **Noise Level Zone.** 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. For the NOLF Choctaw JLUS, noise level contours extending from the airfield are incrementally measured from the highest typical decibel (dB) generated within a military installation to 55 dB within non-military property. Within the Choctaw Study Area, non-military lands inside the 55 dB contour are referred to as the Noise Zone.

Similar to aircraft operational conditions described above for APZs, helicopters must face oncoming wind to create optimal conditions for safe take-off and landing. Subject to aerodynamic wind effects, landing and take-off flight paths for helicopters experience wider variations than flight paths for fixed-wing aircraft, which must be aligned with a runway. Helicopter approach and

departure to and from an airfield follow pre-determined flight paths referred to as the "normal flight path." Deviation from a normal helicopter flight path occurs to take advantage of safer flight paths created by wind direction or to accommodate air traffic. Noise patterns for helicopters can vary for the dynamic conditions stated. A Noise Zone for helicopters must allow for more flexibility than that for fixed-wing aircraft because of aerodynamic and safety requirements.

SECTION 2
AIRFIELD OPERATIONS AND NAVY GROWTH OBJECTIVES

This section inventories and analyzes current air and ground operations performed at NOLF Choctaw. Any current conflicts with military operations, whether air or ground, are also identified and described.

2.1 Airfield Use and Mission – Current and Future

One (1) of fourteen (14) NOLFs supporting NAS Whiting Field, NOLF Choctaw performs a wide range of flight and ground training activities for the US Navy and other military branches. Functioning as a tower-controlled field jointly used for fixed-wing and rotary-wing flight training, NOLF Choctaw's primary mission is to support NAS Whiting Field for primary flight training to Navy (USN), Marine (USMC), Coast Guard (USCG), Air Force (USAF), foreign forces, and other fixed-wing flight students. The field is also the home of the U.S. Navy's unmanned aerial vehicles (UAV) training facility. NOLF Choctaw is used for day and evening training or practice exercises. Fixed-wing and helicopter training may both occur at NOLF Choctaw during the same hours. As this airfield serves multiple purposes, different types of aircraft and ground training may simultaneously take place. Albeit, activities are assigned to designated areas, courses, and schedules by NAS Whiting Field and monitored by Choctaw Tower.

Other flight-related activities taking place at Choctaw Field include performance and maneuver practice by the Navy's Flight Demonstration Squadron -- the Blue Angels – as well as field carrier landing practice. Stationed at their home at nearby NAS Pensacola, the Blue Angels routinely practice in NOLF Choctaw airspace with their FA-18 Hornet jet aircraft. Helicopter flight training supporting NAS Whiting Field also occurs at this field, but other NOLFs accommodate a greater share of primary and advanced helicopter (rotary-wing) flight training operating out of NAS Whiting Field.

Field carrier landing practice (FCLP) is a training exercise designed to simulate landing on an aircraft carrier at sea. The exercise typically involves small groups of aircraft flying in a local pattern around NOLF Choctaw to practice touch-and-go landings to a simulated aircraft carrier deck painted at each end of runway 18/36. These landing areas also have lighting for use at night. . A number of flight squadrons from the USN, USAF, and other military branches use NOLF Choctaw's facilities. Navy squadrons, VAQ-129 (EA-6) and VAW-120 (E-2 and C-2) squadrons regularly use NOLF Choctaw and the FCLP facilities. The VAQ-129 serves the USN as a tactical electronic attack squadron, while the VAW-120, Carrier Airborne Early Warning Squadron, functions as the "eyes of the fleet" performing early warning and detection supporting the USN fleet and installations. Additionally, VMFA 142 (USMC) uses the FCLP facilities to conduct their training in the F-18 aircraft. Choctaw Field has facilities to conduct both day and night FCLP's.

Flight training at Choctaw Field and surrounding Eglin Air Force Base property support special force training as well. Ground operations associated with these activities can include use of heavy or light armored vehicles and helicopters. Live ammunition is not used to conduct these military operations.

While NOLF Choctaw's mission for future years will continue to support current flight training activities as well as those activities previously described, NAS Whiting Field and the US Navy will

increasingly rely upon the availability of NOLF Choctaw to perform additional roles and responsibilities.

NOLF Choctaw will play an important role in the Joint Primary Aircraft Training System (JPATS)[1], which is a set of primary flight training devices designed to meet USN and USAF aircrew requirements. The principal JPATS mission is to train entry-level USN/USAF student pilots in primary flying skills to a level of proficiency enabling them to transition into an advanced pilot training path leading to qualification as military pilots, navigators, and Flight Officers. Implementation of JPATS will result in the replacement of the USN T-34C aircraft and its supporting ground-based training systems (GBTS) currently applied at NAS Whiting Field. The T-6A has already started replacing the T-34 aircraft at NAS Pensacola. These aircraft train Flight Officers and will use NOLF Choctaw for touch and go training. While the GBTS equipment will be placed at NAS Whiting Field, Choctaw Field will primarily be used to practice touch and go landings and other flight training for aviation students in the new T-6A fixed-wing planes. NAS Whiting Field has construction plans to reconstruct one of NOLF Choctaw's runways for T-6A operations.

UAV operations at NOLF Choctaw are expected to increase. Preliminary investigations are underway to determine if a UAV runway closer to Highway 87 would better serve the needs of the Navy and the Air force.

To support ground troop operations, the US Marine Corp and the Alabama Guard have plans to place an armored tank maintenance facility on Eglin Air Force Base property just east of the airfield but inside the NOLF Choctaw Study Area.

2.2 Facilities and Aircraft

Facilities at NOLF Choctaw include a primary runway 8,000 feet in length with standard airfield lighting and approach lights, taxi way and parking aprons, a control tower and landing signal officer building, and facilities for fire and rescue ground crews. Runway arresting gear[2] is available, but is currently in layup. Extensive work would be required if the arresting gear were to be needed. The airfield is set up for 24-hour operation. As stated earlier, to accommodate the FCLP, runway lighting has been installed at both ends of the runway to simulate an aircraft carrier landing platforms (i.e., called a lighted carrier box). NOLF Choctaw has the ground facilities to support both day and night operations.

A variety of aircraft, both fixed-wing and helicopter, rely on Choctaw Field to train and prepare flight students and experienced USN aviators. Aircraft most frequently seen at Choctaw Field include USN T-34C, TH-57, AV-8, C-130, EA-6B, F-18, T-2, T-6A, T-44, and T-45. Additionally, USAF aircraft known to use this airfield on occasion for training purposes include the H-60, H-53, C-5, C-17 and C-130. Appendix 3C provides illustrations of military aircraft that most frequently use NOLF Choctaw.

[1] JPATS components consists of the T-6A Texan II turboprop aircraft, simulators and associated ground-based training devices, a training integration management system, instructional courseware, and contractor logistics support.

[2] Runway arresting gear is mechanical and hydraulic equipment designed to catch and prevent landing aircraft from running off the end of a runway.

The US Navy has a capital improvement program to schedule and budget infrastructure and equipment at its military installations and facilities. This program is known as the Military Construction Program, or MILCON and the Special Project Program. In preparation for the JPATS program, MILCON and Special Projects include several construction projects to upgrade NAS Whiting Field and some of its NOLFs, including NOLF Choctaw. Improvements planned at NOLF Choctaw include reconstruction of a crosswind runway to accommodate a 5,000-foot runway for the JPATS program. To accommodate the expanding UAV program, infrastructure improvements and equipment installation are planned or being planned. Additional resurfacing projects to rebuild the existing runway and taxiway are planned.

2.3 Airfield Operations and Procedures

NOLF Choctaw conducts both fixed-wing and helicopter operations. Fixed-wing aircraft are normally assigned to work the western side of the runway while helicopters are directed to the eastern side. All aircraft are under the direct instruction of the control tower when using NOLF Choctaw. General aviation practice typically occurs from the surface to 5,000 feet MSL for T-34C fixed-wing and TH-57 helicopter. The airspace (Class D) around NOLF Choctaw is under the control of the tower.

The Commanding Officer of NAS Whiting Field administers policy consistent with all Federal Aviation Administration (FAA) Regulations and the Office of the Chief of Naval Operations Instructions (OPNAVINST's) procedures regarding safe aviation operations, flight altitudes, and noise abatement. NAS Whiting Field is sensitive to the effects of noise at all its airfields and their impacts on surrounding communities. When appropriate, actions are taken to reduce aircraft noise. Operating procedures are in place for fixed-wing and helicopter aircraft to reduce and avoid noise impacts to non-military lands as well as to promote public safety. To this endeavor, operating procedures and policy have been established to address specific circumstances associated with conditions unique to each airfield, including the character of the adjacent community.

A. **Operation Areas and Flight Planning** West Florida and South Alabama are home to numerous USN and USAF air bases generating substantial air traffic. The US Navy organizes air space into "areas" Within the FAA designated Alert Area 292. Horizontal (geographic) and vertical (altitude) areas have been established within Alert Area 292 and NOLF Choctaw is located in Area 3 of this area. The boundaries of Alert Area 292 and Area 3 appear in Map 3-2. To implement safety objectives, NAS Whiting Field manages aircraft flight patterns, altitudes, and traffic volumes within its control areas through standard operating procedures and authorized flight plans. All flights must be authorized by a Commanding Officer.

   Student naval aviators follow trainings programs set forth as part of an approved curriculum. Flight training follows specific flight plans. Fixed-wing aircraft represent a substantial majority of flights using NOLF Choctaw, though helicopter training also uses NOLF Choctaw at a much lesser degree. Aircraft originating from a home base other than NAS Whiting Field and NAS Pensacola must have approval from NAS Whiting Field. All flights entering and departing NOLF Choctaw airspace must communicate with the tower.

B. **Flight Patterns.** While NOLF Choctaw is used for some helicopter training, the field and surrounding airspace in Area 3 are allocated for fixed-wing training activities for contact (landing

and take-off) and precision aerobatics operations from the surface to 9,500 feet MSL. Among all aircraft using NOLF Choctaw airspace, Training Wing FIVE fixed-wing aircraft, typically the T34C, annually comprise the greatest volume of flights using this airfield. Standard operating procedures and flight patterns have been established for Training Wing-5 fixed-wing aircraft. Current standard operating procedures are based on the T-34 aircraft requirements. NAS Whiting Field will evaluate, and if necessary, revise standard operating procedures to address needs for the T-6A aircraft. The T-6A should not cause any significant modifications to established flight patterns for fixed-wing training aircraft at NOLF Choctaw.

1) **Fixed-Wing Flight Patterns**. Separate flight patterns are established for aircraft entering and departing NOLF Choctaw airspace. The maximum number of aircraft in any pattern at any given time is six.

   Normal flight patterns for T-34C fixed-wing aircraft entering NOLF Choctaw airspace are illustrated on Map 3-3. This flight pattern is called the "Point Avalon" pattern. Flights enter and leave NOLF Choctaw airspace in the direction of Point Avalon, which is on the west side of East Bay. Fixed-wing aircraft approaching NOLF Choctaw from the north follow the Weaver River at 900 to 1,200 feet MSL, then turn directly south toward the primary runway. For approaches from the south of NOLF Choctaw, aircraft stay within East Bay until south of the primary runway, whereupon proceeding directly north toward the airfield.

   An alternative approach to enter NOLF Choctaw airspace is the "High Key" approach. Aircraft applying the High Key approach enter from any direction but must be at an altitude above 2,500 feet MSL until over the airfield.

   A second flight pattern is used for aircraft involved in touch and go operations, which is a technique used to practice runway approach. In a touch and go pattern, as many as six aircraft will circle the airfield. To re-enter the airfield pattern after touching down on the runway, a left or right turn is made to re-entering the airfield pattern. The normal traffic pattern circling the airfield typically occurs at around 500 feet MSL or as instructed by the field tower. Fixed-wing traffic patterns are at 900 feet MSL while the break altitude is 1200 feet MSL.

   Fixed-wing aircraft depart NOLF Choctaw to the south at 1,000 feet MSL until over land south of East Bay on Gulf Breeze Peninsula. Aircraft taking-off or flying north at the time of departure will turn to the south and follow the same departure pattern over Gulf Breeze Peninsula. Choctaw Tower will determine runway direction for all take-offs.

   When the Blue Angels use NOLF Choctaw's airspace for precision aerobatics operations, the airfield as well as NOLF Holley, is closed to all aircraft. The Blue Angels use airspace from the surface to 9,500 feet MSL but primarily use airspace from 5,000 and 9,500 feet MSL.

2) **Helicopter Flight Patterns**. Helicopters approach NOLF Choctaw from the north, northwest, or south. For flights entering NOLF Choctaw from the north or northwest, flights follow the Yellow River until north of the runway, where their heading turns to the south for the airfield. While helicopters arriving from the north (from Point Fish direction) fly at 900 feet MSL, aircraft arriving from the northwest (Yellow River Inlet) fly at 500 feet MSL. Once south of

the Yellow River, helicopters descend to airfield pattern altitude. For helicopter approaches from the south of NOLF Choctaw, normal altitude is 900 feet MSL. Wind direction and instruction from Choctaw Tower will determine the most appropriate approach or departure pattern.

Helicopters must land or take-off pointed in the direction of the prevailing wind. Wind direction changes based on seasonal and daily cyclical climatic conditions. The assigned course, used for takeoff, approach, and taxing will be subject to wind direction. Helicopters departing NOLF Choctaw will depart in a northern or southern direction based on the direction of the prevailing wind.

Helicopter training at an airfield may require aviation students to perform maneuvers according to a course. Flight training activities follow a curriculum approved by the USN Chief of Naval Air Training. The assigned course is predicated by wind direction. For many training exercises, the practice course or area on the field will change in conjunction with change in wind direction.

C. **Flight Operating Procedures and Restrictions.** Protection of the health and safety for civilian and military population is a top priority administered and enforced by the USN and NAS Whiting Field. To reduce aircraft accident potential, standard operating procedures have been established by NAS Whiting Field for flight operations for all its airfields, including NOLF Choctaw. Also, to protect health, safety, and welfare of civilian populations, aircraft may be restricted from operating within certain sensitive areas or below certain altitudes.

Fixed-wing aircraft and helicopters have different performance and aerodynamic capabilities. Separate standard operating procedures, have been developed for each type of aircraft. Some operating standards and restrictions apply uniformly to all types of aircraft. Some procedures and restrictions may apply to designated geographical areas, such as an airfield or operating area, or subject to altitude. And some may apply only to specific aircraft types, pilot training level, or calendar schedule.

Any restrictions or procedures applicable to Area 3 will include NOLF Choctaw. Restrictions and operating procedures applicable to aircraft within Area 3 airspace are listed below.

1) Area 3 airspace is closed to all traffic when airspace is being used for Navy Blue Angel practice. (Map 3-2 shows Area 3 boundaries.)
2) Fixed-wing aircraft are to avoid airspace below 2,000 feet MSL west of Woodlawn Beach including Pensacola Bay and Santa Rosa Sound. Both areas are outside the NOLF Choctaw Joint Land Use Study Area.
3) Within Alert Area 292, which includes Area 3 and NOLF Choctaw, all aircraft flying below 3,000 feet MSL must avoid public beach, resort and noise sensitive areas.
4) Fixed-wing aircraft are not allowed to descend below 500 feet above ground level unless when necessary for takeoff or landing. (Map 3-2 shows Alert Area 292 and Area 3 boundaries.)
5) During day or night[1], helicopter traffic can fly between the surface and 1,399 MSL in Area 3. Helicopter traffic in East Bay should stay below 500 feet MSL whenever practicable, and must

[1] Night operations begin at official sunset and end at official sunrise.

fly no closer than 500 feet slant-range from any residential building in the East Bay area and at least 200 yards from the East Bay shoreline. Other altitude restrictions apply for entry and departure from NOLF Choctaw.

6) No more than six (6) aircraft are allowed in the Choctaw airport pattern (i.e., the local pattern) at any given time.

2.4 Current Air Operation Conflicts

Air and ground operations conducted at NOLF Choctaw have a minimal impact on non-military lands within the Choctaw Study Area. Vacant lands extending for miles to the east of NOLF Choctaw are contained within Eglin Air Force Base. Flight patterns to the east, the Point Avalon and Point Fish patterns, fly over water in East Bay, conservation lands owned by the State of Florida or Northwest Florida Water Management District, or property within Eglin Air Force Base. Flight patterns for or leading to the south fly over vacant lands before reaching East Bay. Touch and Go flight patterns circling the airport fly over military lands, conservation lands, or vacant lands. Fixed-wing and helicopter flight paths, both entry and departure, tend to avoid existing residential areas at the southeastern corner of the Choctaw Study Area.

No military or civilian dwellings homes are located within the APZ's or noise zone areas. No resort areas, public beach areas, or noise sensitive areas occur within the Choctaw Study Area. Map 3- 4 compares existing land use with APZ and Noise Zones.

SECTION 3
COMMUNITY PROFILE AND DEVELOPMENT CHARACTERISTICS

NOLF Choctaw is located near the southwestern edge of Eglin Air Force Base. The USN holds a long-term agreement with the USAF to use NOLF Choctaw for aviation training and practice. This agreement grants the USN priority over NOLF Choctaw lands and twenty-five square miles of military airspace on surrounding lands. Approximately 70% of the Choctaw Study Area is belongs to the USAF but is under the control of the USN and NAS Whiting Field. East of NOLF Choctaw, Eglin Air Force Base extends eastward through Santa Rosa County and covers substantial portions of south and central Okaloosa and Walton Counties.

3.1 Study Area Profile

Within the Choctaw Study Area, 13,419 acres, or 71% of the total acreage, is land controlled by Eglin Air Force Base and NAS Whiting Field. All but 2% of the 5,398 acres of non-military land is either vacant or owned by the State of Florida or the Northwest Florida Water Management District. Table 3-2 provides a summary profile for existing land uses within the non-military lands within the Choctaw Study Area. Map 3-4 shows existing land use appearing in the Choctaw Study Area.

Table 3-2
Existing Land Use Profile by Acreage
Choctaw Study Area

Existing Land Use	Study Area[1]		Clear Zone/Accident Potential Zone (acres)				Noise Zone[3]
	Acres	Percent	A	B	C	Total APZ	
Agriculture	49	1%					
Residential[2]	47	1%					
Vacant	3,437	64%		491	562	1,053	667
Publicly Owned Property	1,838	34%			12	12	2
Right-of-Way	18	0%					
Water	8	0%					
Uncategorized	1	0%					
Study Area	5,398	100%		491	574	1,065	669

Source: Santa Rosa County, 2003.
[1] Land uses and acreages appearing in the table are for non-military lands within the Choctaw Study Area.
[2] Includes single family, townhouses, or condominiums
[3] Acreage relates to the proposed Noise Zone, which covers a larger ground area than the current Noise Zone.

With exception to the southeast corner of the Choctaw Study area, land subdivision predominantly occurs in large tracts of land. Less than ten property owners control over 90% of the non-military parcels. Map 3-5 denotes all parcels over five acres. A substantial portion of the study area is covered by parcels exceeding 100 acres.

Vacant lands comprise 64% of all non-military land in the Choctaw Study Area. A vast majority of this vacant land is completely boarded on all sides by bay water or land owned by military or state government. Vacant land south and west of the airfield is landlocked from other non-military land situated southeast of NOLF Choctaw near State Road 87. Land access to a substantial portion of vacant lands can only be accomplished across USAF property. Such access requires authorization from the USAF.

Less than 2% of the non-military land is used for residential homes. No commercial, office, or industrial uses occur within non-military lands inside the Choctaw Study Area.

3.2 Current Housing and Population

In 2003, residential development only comprises 71 dwellings, most of which are located in the southeastern corner of the Choctaw Study Area. Current population is estimated at 182 persons. Table 3-3 summarizes the number of housing units by study area location and dwelling type. All but four homes are situated at the southeast corner of the Choctaw Study Area along or near the shoreline of East Bay. Three or four homes are located in the Grassy Point area west of NOLF Choctaw.

Population and housing estimates were determined by comparing land use records from the Santa Rosa County Property Appraiser's Office with statistical data from the 2000 U.S. Census. The average number of persons per household for Santa Rosa County was applied to the number of occupied housing units. Occupancy rates for Santa Rosa County were applied to the total number of residential units in the Choctaw Study Area to obtain occupied housing unit figures.

Table 3-3
Existing Housing Unit Profile
Choctaw Study Area

	Housing Units					
		Clear Zone/Accident Potential Zone				
Residential Type	Study Area	A	B	C	Total APZ	Noise Zone
Single Family	66	0	0	0	0	0
Mobile Home	5	0	0	0	0	0
Multiple Family	0	0	0	0	0	0
Total	71	0	0	0	0	0

3.3 Clear Zone/Accident Potential Zone (APZ) Profile

A clear zone is located at each end of NOLF Choctaw's primary runway. Within the Choctaw Study Area, the Accident Potential Zone covers 3,707 acres, but only 1,064 acres falls on non-military lands. For all non-military lands in the Choctaw Study Area, 20% is within the APZs. As shown in Table 3-4, all land within the non-military APZ is vacant or owned by the NWFWMD and the State of Florida. No structures or residential homes occur within any area of the non-military APZ.

Table 3-4
Accident Potential Zone Profile: Existing Land Use
Choctaw Study Area

APZ Zone	Existing Land Use Category	Existing Land Use Description	Acres
APZ-I "B" (non-military land)	Vacant	Vacant	491
APZ-II "C" (non-military land)	Public-Owned	Publicly Owned Property	12
APZ-II "C" (non-military land)	Vacant	Vacant	562
APZ , non-military total			1,064
APZ, military property			2,643
Total APZ			3,707

For the north APZ, nearly all of the APZ's lies on military property except a small portion, approximately 100 acres, that is vacant non-military land. Nearly all non-military land in the south APZ's, amounting to approximately 1,000 acres, is vacant while a small amount is public owned property.

Vacant land within the APZ's is predominantly covered by wetland coniferous forests, forest regeneration areas, or wetland scrub. Map 3-6 provides information regarding land use coverage, vegetative communities, and endangered species in the Choctaw Study Area. In 1996-1997 the Florida Natural Areas Inventory (FNAI) conducted a survey to identify the endangered, threatened, and rare vertebrate and plants species occurring at NAS Whiting Field and all but one of its NOLFs. NOLF Choctaw was surveyed by FNAI. FNAI also observed the presence of the Florida pine snake, a rare. General location of the specie observation is identified on Map 3-6.

Land ownership within the APZ's in presently established in large tracts owned by a limited number of people – as few as three to five property owners.

3.4 Noise Zone Profile

NOLF Choctaw has both an existing and proposed noise zone. The proposed noise zone is under evaluation by the USN. In both cases, a substantial portion of the noise zone lies within military land. While the noise zone covers 4,469 to 5,327 acres within the Choctaw Study Area, only 11% to 15% actually lies over non-military property. The existing and proposed noise zones cover approximately 471 and 669 acres of non-military land, respectively. No residential units or structures occur within non-military lands within either zone. For non-military property in the noise zone, all but 2% is vacant lands under private ownership. The small remaining balance is owned the NWFWMD, an agency of the State of Florida.

As illustrated within Map 3-5, all vacant lands falling within the existing and proposed noise zone are located directly south or southwest of the airfield. Although noise contours extend past the east boundary of the Choctaw Study Area, the effected land lies entirely within Eglin Air Force Base.

Vacant lands within the noise zones are large tracts belonging to three to five property owners. Based on land use coverage maps prepared by the NWFWMD, over 90% of vacant lands within the noise zones appear to be covered by wetland coniferous forests, forest regeneration areas, or wetland scrub. Map 3-6 shows land use coverage and vegetative communities in the Choctaw Study Area.

3.5 Summary of Existing Airfield and Land Use Conflicts

No structures occur within the APZ or Noise Zones. Normal flight patterns for both helicopters and fixed-wing aircraft tend to avoid residential areas at the southeastern corner of the Choctaw Study Area. Nearly all existing homes within the study occur in the southeastern corner. Four or five homes occur west of the airfield, but distant from any noise zones. Entry flight patterns for helicopters may overfly near these homes if deviation from normal flight patterns is necessary. If helicopter overflight near these homes is necessary, the helicopter will likely be at an altitude below 500 feet MSL. With the recent acquisition of land directly to the west of the airfield by the Northwest Florida Water Management District (NWFWMD), normal flight patterns by fixed-wing aircraft will not impact any current or future populations in that area. The land recently purchased by the NWFWMD are delineated on Map 3-7 and appear in Map 3-4 as the POP lands west of the airfield.

No structures other than single-family homes and accessory buildings, such as detached garages or storage sheds occur within non-military property in Choctaw Study Area.

SECTION 4
FUTURE DEVELOPMENT POTENTIAL AND ASSESSMENT OF FUTURE LAND USE CONFLICTS

People living or working near a military airfield can expect impacts such noise, smoke, and dust generated from ground and air operations. Quality of life for those living or working near an airfield can be negatively affected when these impacts reach levels creating a nuisance. A potential risk to public safety also exists from the possibility of aircraft crashing at or near an airfield. The extent and frequency of negative impacts affecting people living near airfields will vary based on the type of aircraft, airfield operating hours, airfield ground activities, frequency of flight and ground training activities, and proximity to the airfield. Future residents choosing to live within the Choctaw Study area will be impacted by flight and ground activities at NOLF Choctaw.

4.1 Housing and Population Methodology

Population and housing estimates were prepared using maximum residential densities allowed by the Santa Rosa County Comprehensive Plan, future land use designations assigned to property within the Choctaw Study Area, occupancy rates and average persons per household for Santa Rosa County in the 2000 US Census, and Article 11 (Airport Environs) of the Santa Rosa County Land Development Code. Housing and population figures estimated for year 2005 through 2020 are based on an annual growth rate of 3.4%, which is identical to the growth rate applied in the Santa Rosa County Comprehensive Plan to project population through 2020.

For purposes of this study, build-out potential represents development of all land according to its assigned Future Land Use Designation, as determined by the Santa Rosa County Comprehensive Plan and the Future Land Use Map. Because of the size of the study areas, the future land use designation was used to evaluate potential development instead of using zoning, which was applied to other NOLFs in the Santa Rosa JLUS. Article 11 of the County's Land Development Code establishes specific development densities for property located with the APZ or Noise Zone. When Article 11 is applied to the population and housing methodology, the number of homes and population within an APZ or Noise Zone is less than that allowed by the Santa Rosa County Comprehensive Plan. The population and housing estimates are based on an occupancy rate of 89.2% and an average persons per household rate of 2.63, as set forth in the US Census 2000 for Santa Rosa County.

Other factors that were considered to estimate housing and population include environmental characteristics and infrastructure needs. Based on land coverage information mapped by the NWFWMD, a substantial portion of the land south of the NOLF Choctaw and north of East Bay appears to contain wetlands. The presence of wetlands typically, but not always, can reduce development potential. The extent of wetland coverage cannot be accurately estimated based on available data. Developable land in these areas was reduced by 35% based on the likelihood that the wetlands will reduce development potential. Also, roads and stormwater management facilities must support new development. Developable land was reduced by another 15% to acknowledge right-of-way and drainage needs. Population and housing estimates could be higher or lower based on the extent and type of wetlands and land needs to accommodate infrastructure.

Future land use designations assigned to property with the Choctaw Study Area appear in Map 3-7. For information purposes, the zoning assigned to properties within the Choctaw Study Area appears in Map 3-8.

4.2 Study Area Development Potential

Currently, an estimated 182 residents live among 71 homes located within the Choctaw Study Area. Based on vacant lands that could potentially accommodate new development, population in the Choctaw Study Area has a potential to an estimated 9,598 or more. The number of homes could rise to as many as 3,744 or more dwelling units. Numerous parcels are on the Florida Forever Acquisition List - "Escribano Point Project". This study considers the development potential of these properties if this acquisition is not completed. Tables 3-5 and 3-6, respectively, list the number of homes and their residents that could potentially occur within the Choctaw Study area in the future.

Table 3-5
Potential Future Population
Choctaw Study Area

	Year				
Residential Unit	**2005**	**2010**	**2015**	**2020**	**Build-Out Potential**
Single Family	181	209	238	267	8,922
Mobile Home	14	16	18	20	676
Multiple Family	0	0	0	0	
Total	194	225	256	287	9,598[1]

[1]This total will be significantly decreased by the Escribano Point Project.

Table 3-6
Potential Future Housing Units
Choctaw Study Area

	Year				
Residential Unit	**2005**	**2010**	**2015**	**2020**	**Build-Out Potential**
Single Family	70	82	93	104	3,481
Mobile Home	5	6	7	8	263
Multiple Family	0	0	0	0	0
Total	76	88	100	112	3,744[1]

[1]This total will be significantly decreased by the Escribano Point Project.

4.3 APZ and Noise Zone Development Potential

No homes and population currently exist within the Clear Zones, APZ'S, or Noise Zones for NOLF Choctaw. Within these sensitive areas, however, over a 1,000 people could live within a Noise Zone or APZ in future years. Table 3-7 lists potential population and housing that could occur if all lands within the APZ's and Noise Zones develop according to maximum densities allowed by the Santa

Rosa County Comprehensive Plan. Development within the Clear Zone is severely restricted by the County's Airport Environs ordinance.

Table 3-7
Potential Future Population and Housing Units, Build-Out Conditions[1]

Clear Zone/APZ Category	Population	Housing Units	Maximum Density (units/acre)
Clear Zone "A	0	0	Not allowed[1]
APZ-I "B"	77	33	1 unit/5 acres[2]
APZ-II "C"	1,027	437	1 unit/2acres
Total	1,104	470	n/a

[1] Zoning regulations prohibit residential development.
[2] Residential development not allowed within the APZ-I"B" where overlapped by Noise Zone 3.
n/a – not applicable

4.4 Other Development Issues

Population levels estimated for build-out conditions shown above could be expected to generate market demand for commercial retail and services. Such demand could lead to development pressures demanding modification to currently established zoning and future land use inside the Choctaw Study Area. Land acquisition through the Escribano Point Project would substantially reduce potential population as well as demand for commercial retail and services.

SECTION 5
STUDY RECOMMENDATIONS

5.1 Land Acquisition

A. **Findings.** Land directly south and southwest of the primary runway is vacant but designated as Low Density Residential (LDR) on the County's Future Land Use Map, allowing as many as four units per acres. While the County's Land Development Code reduces potential development densities from two units per acre to as low as one unit per five acres for areas within the APZ's, the LDR designation could accommodate a population exceeding 9,000 residents. Abutting East Bay, this property will be attractive for residential development desiring waterfront access. Land subdivision occurs in large tracts with only five or six property owners. The State of Florida recently purchased over 1,000 acres of land designated LDR directly west of the NOLF. Acquisition of further land would serve ecological benefits by linking existing conservation lands East Bay, support wildlife dependent on upland and aquatic habitats. Numerous parcels are on the Florida Forever Acquisition List - "Escribano Point Project". This study considers the development potential of these properties if this acquisition is not completed.

B. **Recommendation.** The County, Eglin AFB and NAS Whiting Field should continue to support Florida Forever acquisition plans for the Escribano Point Project. This project covers the lands denoted on Map 3-9 as R1.

Alternatives to direct land acquisitions could include land banking, purchase of development rights, or transfer of development rights. With a substantial portion of the land south of the airfield occurring in wetlands, the County or NWFWMD might be able to incorporate this area into a wetland mitigation bank program. Developers impacting wetlands within the County could in lieu of on-site mitigation contribute funds to the mitigation bank. In the case of development rights purchases, a property owner agrees to a density reduction in exchange for a payment. For the third alternatives, development density would be lowered but the densities could be transferred to urban areas in the County were higher densities would be appropriate.

5.2 Access Management Interlocal Agreement.

A. **Findings**. The boundary configuration of Eglin Air Force Base land locks all property designated LDR south and west of the airfield. All lands designated LDR and located directly south and southwest of the airfield can only be accessed by crossing through military property. Existing dirt roads connecting to State Road 87 are maintained by the County but owned by the military. The USN/USAF controls use of its property.

B. **Recommendations.** Construction of new roads or use of existing roads on military property should not be allowed by the USN/USAF unless proposed development complies with densities compatible with NOLF Choctaw activities. Access points and road layout would be decided on a case-by-case basis. NAS Whiting Field and Eglin Air Force Base should limit access authorization to development with a maximum density of one unit per five acres.

5.3 Density Reduction

A. **Findings.** The current County Comprehensive Plan allows up to four units per acre on lands designated LDR within the Choctaw Study Area. As presently proposed, amendments to the Comprehensive Plan could allow densities to increase up to six units per acre for land designated LDR. These densities could allow over 9,000 new residents within less than one-half miles from NOLF Choctaw. As increased training and practice activities are planned at NOLF Choctaw, future conflicts would occur between residential quality of life and military operations.

Furthermore, land south and southwest of the airfield appears to be substantially covered by wetland forests. A density of four units per acre appears to be incompatible with the environmental characteristics associated with LDR designated properties directly south and southwest of the airfield.

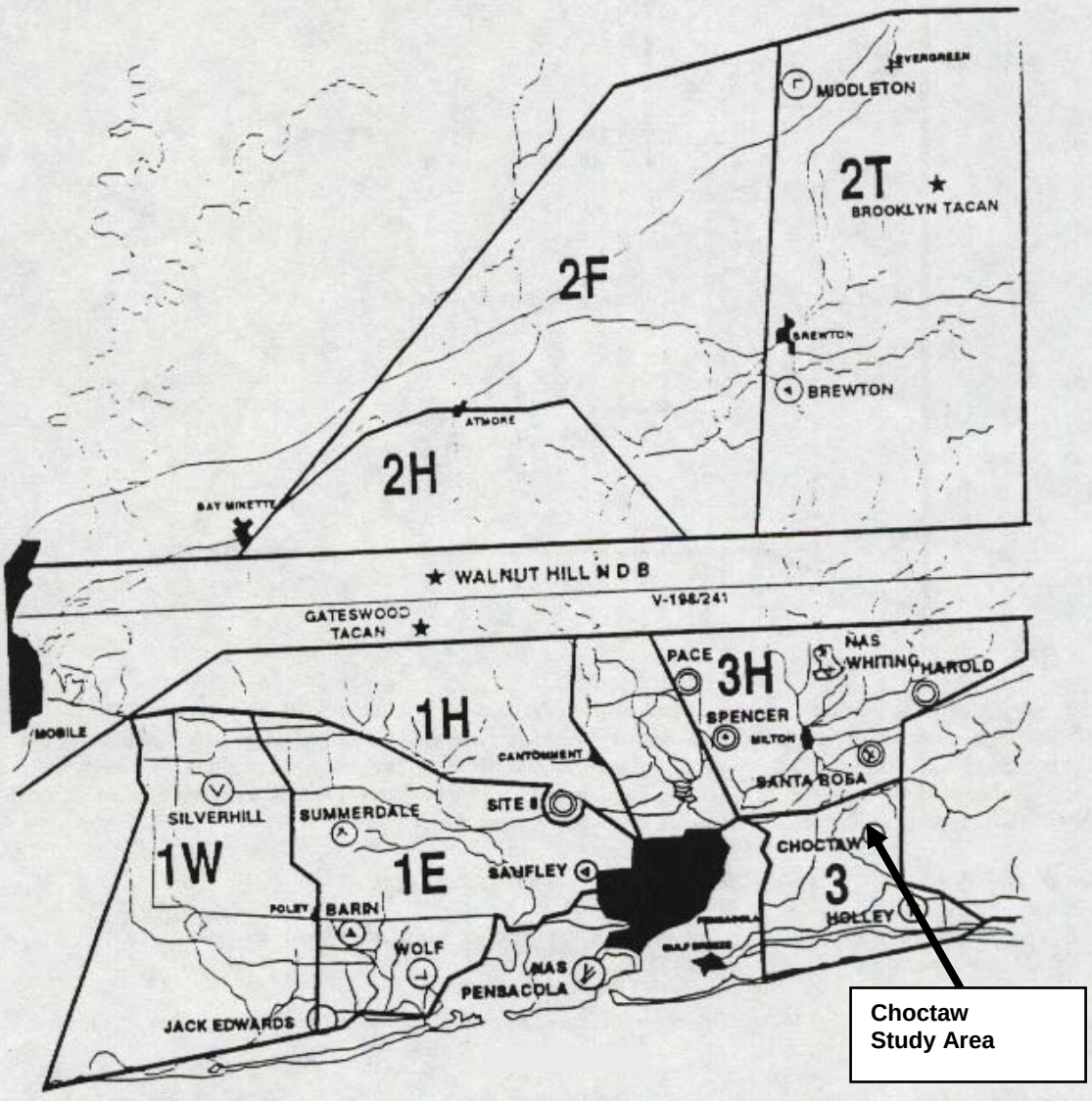
B. **Recommendations.** Development density for lands south and southwest of the airfield should be reduced to allow no more than one unit per five acres where development occurs Map 3-9 identifies the areas affected by this recommendation as R1. The LDR area designated as R2 should have densities reduced to no more than 2 units per acre or lot sizes similar to the typical lots currently in the southeast corner, which even is more restrictive.

5.4 General Recommendations

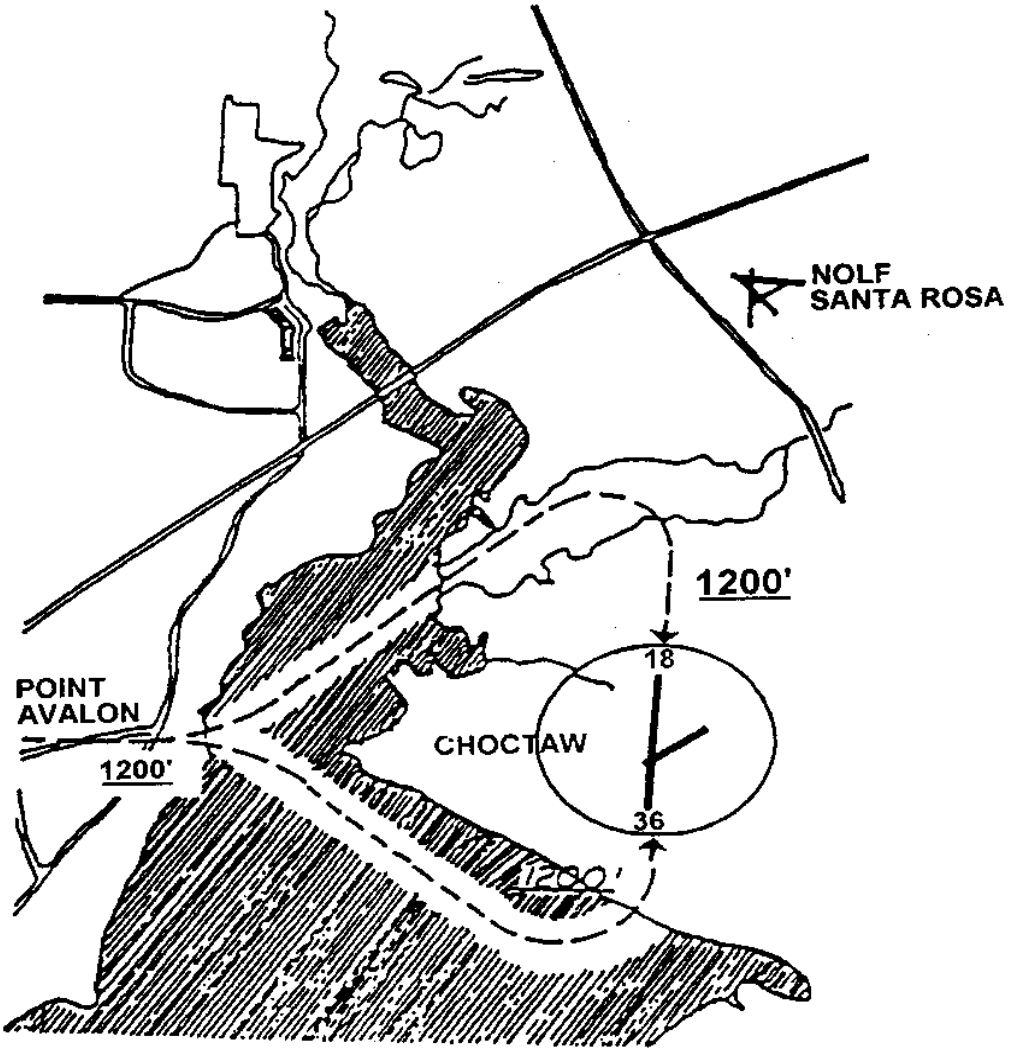
Chapter 1 may include additional recommendations affecting the use of land or construction methods applicable to areas near all or a number of airfields evaluated as part of the Santa Rosa Joint Land Use Study.

APPENDIX 3A

NOLF CHOCTAW JLUS MAPS

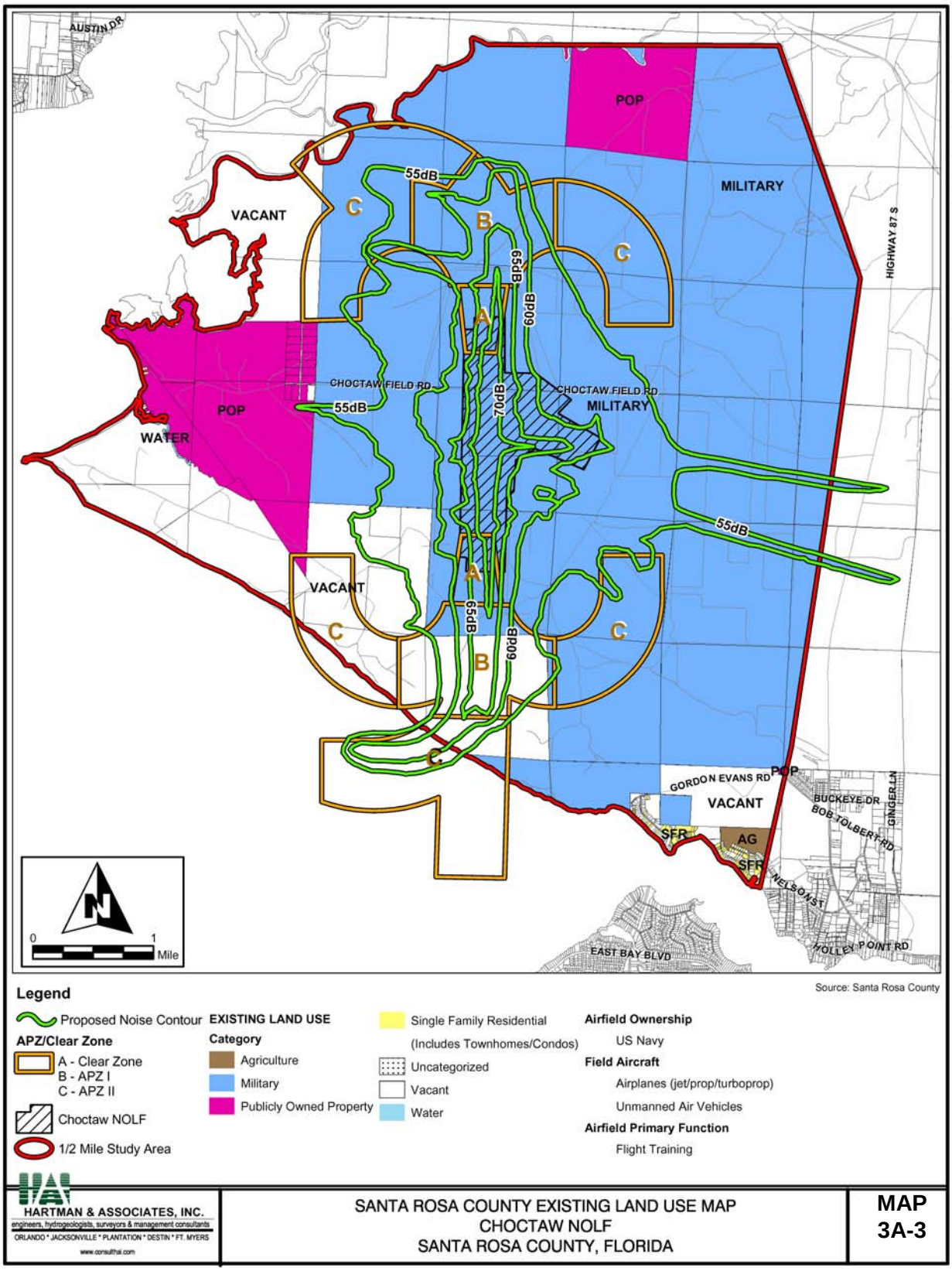


ALERT AREA 292 | **Map 3A-1**



T-34 FIXED WING ENTRY FLIGHT PATTERN
CHOCTAW STUDY AREA

Map 3A-2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AUSTIN DR
POP
MILITARY
VACANT
55dB
65dB
70dB
09dB
HIGHWAY 87 S
CHOCTAW FIELD RD
WATER
VACANT
GORDON EVANS RD
BUCKEYE DR
BOB TOLBERT RD
GINGER LN
SFR
AG
NELSON ST
HOLLEY POINT RD
EAST BAY BLVD
0
1
Mile
Source: Santa Rosa County
Legend
Proposed Noise Contour
APZ/Clear Zone
A - Clear Zone
B - APZ I
C - APZ II
Choctaw NOLF
1/2 Mile Study Area
EXISTING LAND USE
Category
Agriculture
Military
Publicly Owned Property
Single Family Residential
(Includes Townhomes/Condos)
Uncategorized
Vacant
Water
Airfield Ownership
US Navy
Field Aircraft
Airplanes (jet/prop/turboprop)
Unmanned Air Vehicles
Airfield Primary Function
Flight Training
HARTMAN & ASSOCIATES, INC.
engineers, hydrogeologists, surveyors & management consultants
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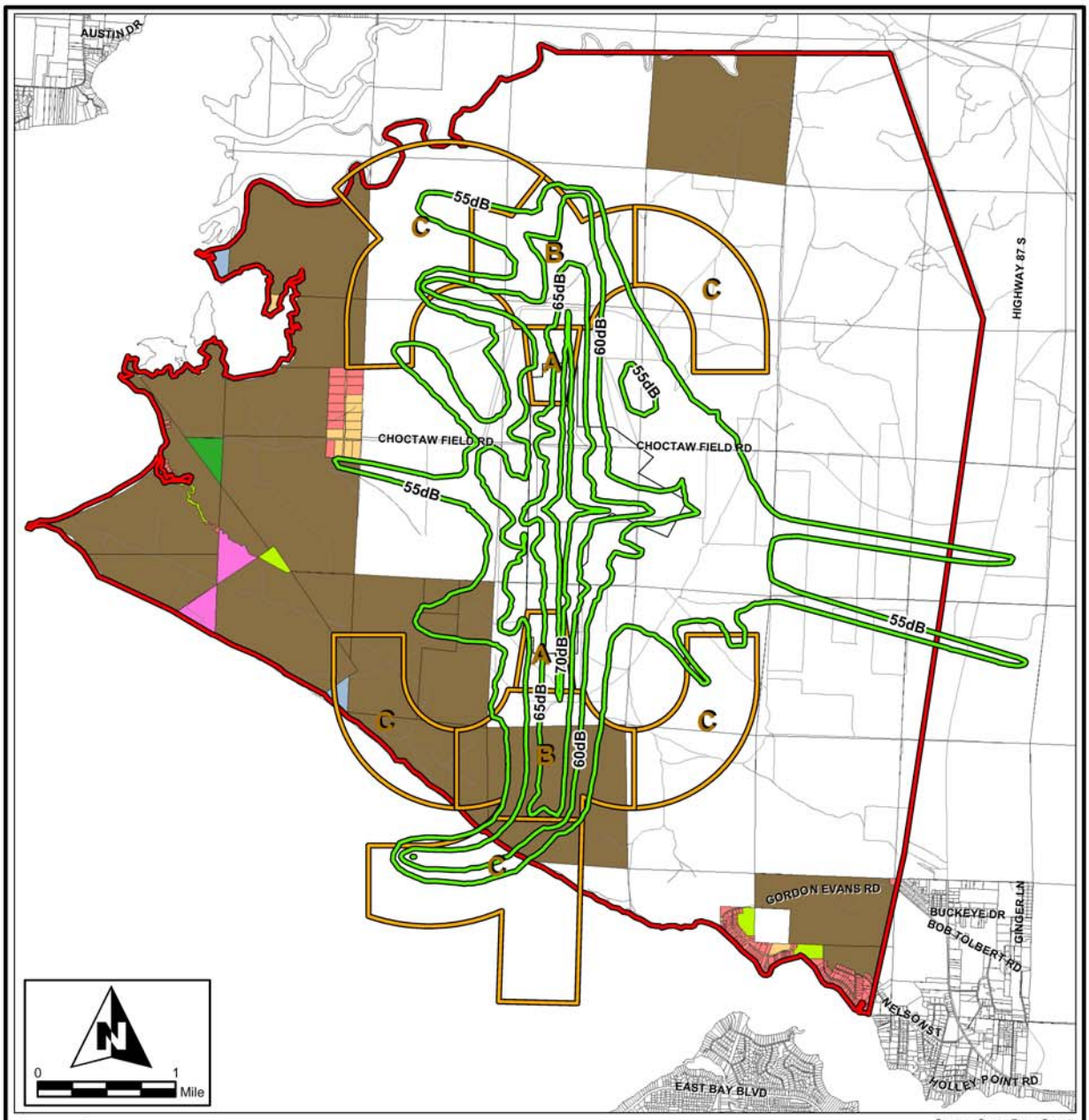
SANTA ROSA COUNTY EXISTING LAND USE MAP
CHOCTAW NOLF
SANTA ROSA COUNTY, FLORIDA
MAP
3A-3


AUSTIN DR
55dB
65dB
60dB
70dB
A
B
C
CHOCTAW FIELD RD
HIGHWAY 87 S
GORDON EVANS RD
BUCKEYE DR
BOB TOLBERT RD
GINGER LN
NELSON ST
HOLLEY POINT RD
EAST BAY BLVD
0
1
Mile
S:\Projects\SSANTAROS\02039200\Maps\Choctaw\Report\APLotSize2.MXD [08-06-03 bam]
Source: Santa Rosa County
Legend
Existing Noise Contour
APZ/Clear Zone
A - Clear Zone
B - APZ I
C - APZ II
Choctaw NOLF
1/2 Mile Study Area
SRC Property Appraiser Data
Parcel Acreage
< 5.0 ac
5.00 ac - 9.9 ac
10.00 ac - 14.9 ac
15.00 ac - 19.9 ac
20.00 ac - 34.9 ac
35.00 ac - 39.9 ac
> 40.00 ac
Airfield Ownership
US Navy
Field Aircraft
Airplane (jet/prop/turboprop)
Unmanned Air Vehicles
Airfield Primary Function
Flight Training
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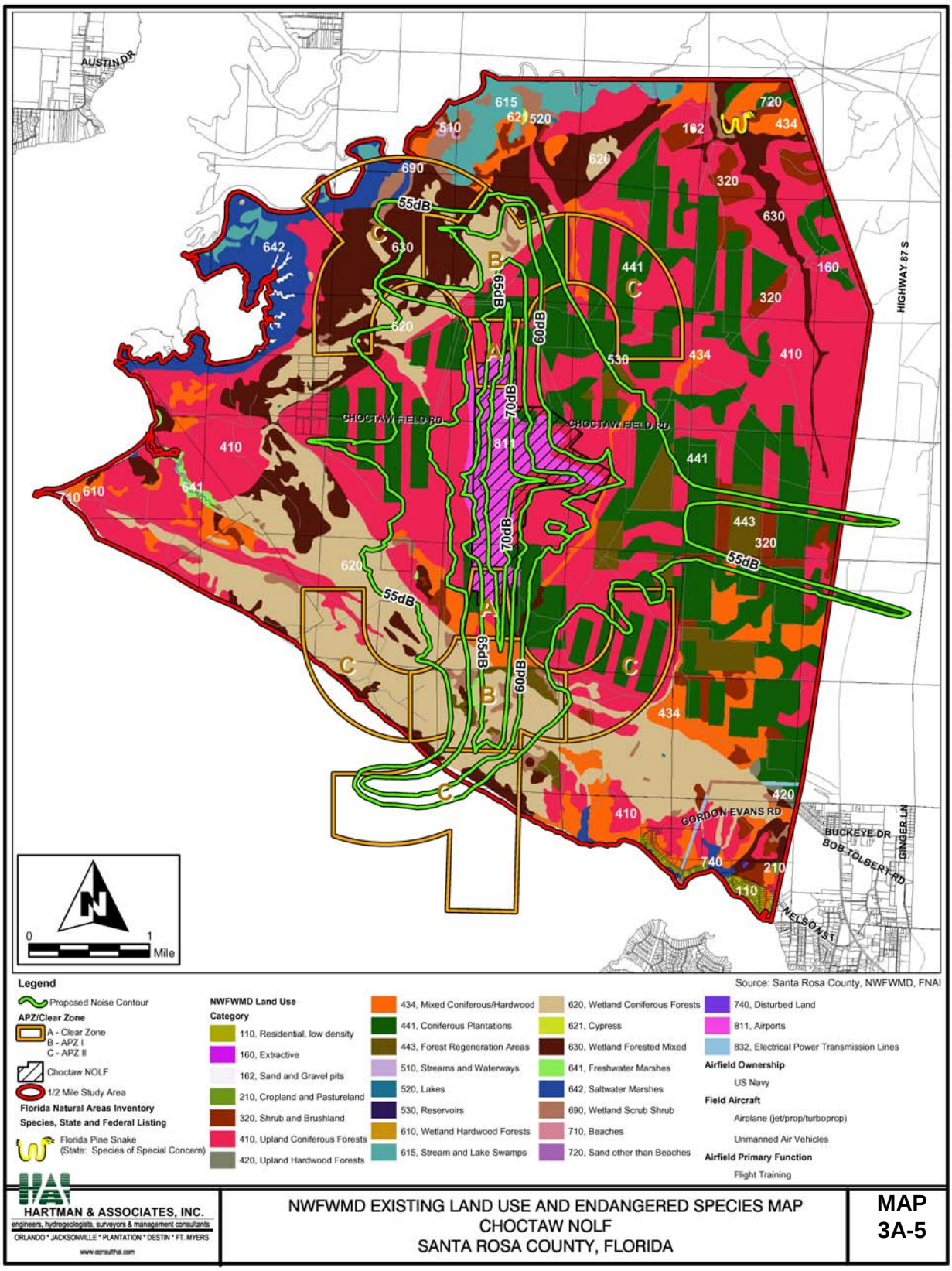
SANTA ROSA COUNTY - PARCEL ACREAGE MAP
CHOCTAW NOLF
SANTA ROSA COUNTY, FLORIDA
MAP
3A-4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AUSTIN DR
HIGHWAY 87 S
CHOCTAW FIELD RD
CHOCTAW FIELD RD
GORDON EVANS RD
BUCKEYE DR
BOB TOLBERT RD
GINGER LN
NELSON ST
55dB
60dB
65dB
70dB
0
1
Mile
Legend
Proposed Noise Contour
APZ/Clear Zone
A - Clear Zone
B - APZ I
C - APZ II
Choctaw NOLF
1/2 Mile Study Area
Florida Natural Areas Inventory
Species, State and Federal Listing
Florida Pine Snake
(State: Species of Special Concern)
NWFWMD Land Use
Category
110, Residential, low density
160, Extractive
162, Sand and Gravel pits
210, Cropland and Pastureland
320, Shrub and Brushland
410, Upland Coniferous Forests
420, Upland Hardwood Forests
434, Mixed Coniferous/Hardwood
441, Coniferous Plantations
443, Forest Regeneration Areas
510, Streams and Waterways
520, Lakes
530, Reservoirs
610, Wetland Hardwood Forests
615, Stream and Lake Swamps
620, Wetland Coniferous Forests
621, Cypress
630, Wetland Forested Mixed
641, Freshwater Marshes
642, Saltwater Marshes
690, Wetland Scrub Shrub
710, Beaches
720, Sand other than Beaches
740, Disturbed Land
811, Airports
832, Electrical Power Transmission Lines
Airfield Ownership
US Navy
Field Aircraft
Airplane (jet/prop/turboprop)
Unmanned Air Vehicles
Airfield Primary Function
Flight Training
Source: Santa Rosa County, NWFWMD, FNAI
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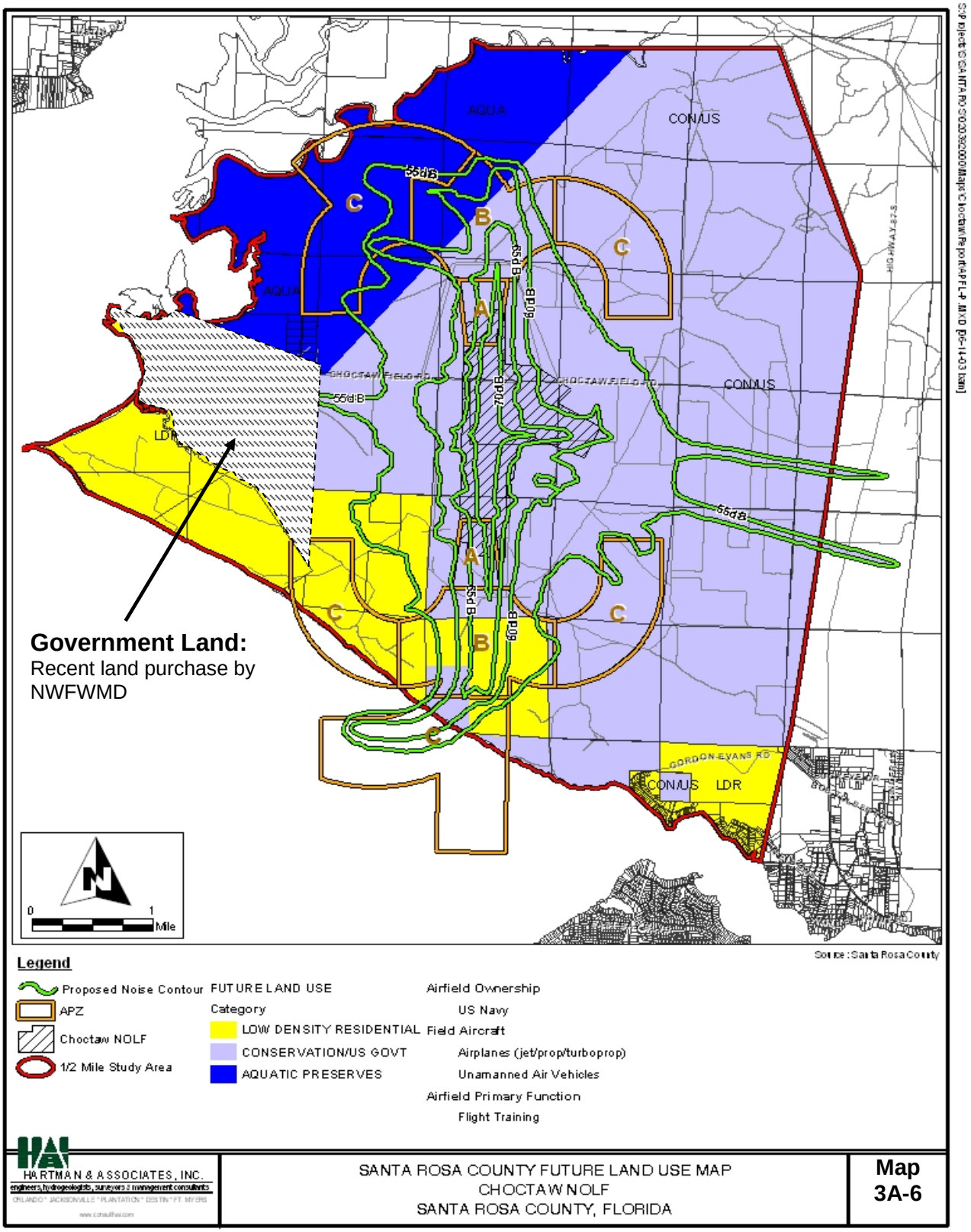
NWFWMD EXISTING LAND USE AND ENDANGERED SPECIES MAP
CHOCTAW NOLF
SANTA ROSA COUNTY, FLORIDA
MAP
3A-5


Government Land:
Recent land purchase by NWFWMD
AQUA
CON/US
LDR
55dB
70dB
A
B
C
CHOCTAW FIELD RD
GORDON-EVANS RD
HIGHWAY 87 S
0
1
Mile
Source: Santa Rosa County
Legend
Proposed Noise Contour
APZ
Choctaw NOLF
1/2 Mile Study Area
FUTURE LAND USE
Category
LOW DENSITY RESIDENTIAL
CONSERVATION/US GOVT
AQUATIC PRESERVES
Airfield Ownership
US Navy
Field Aircraft
Airplanes (jet/prop/turboprop)
Unamanned Air Vehicles
Airfield Primary Function
Flight Training
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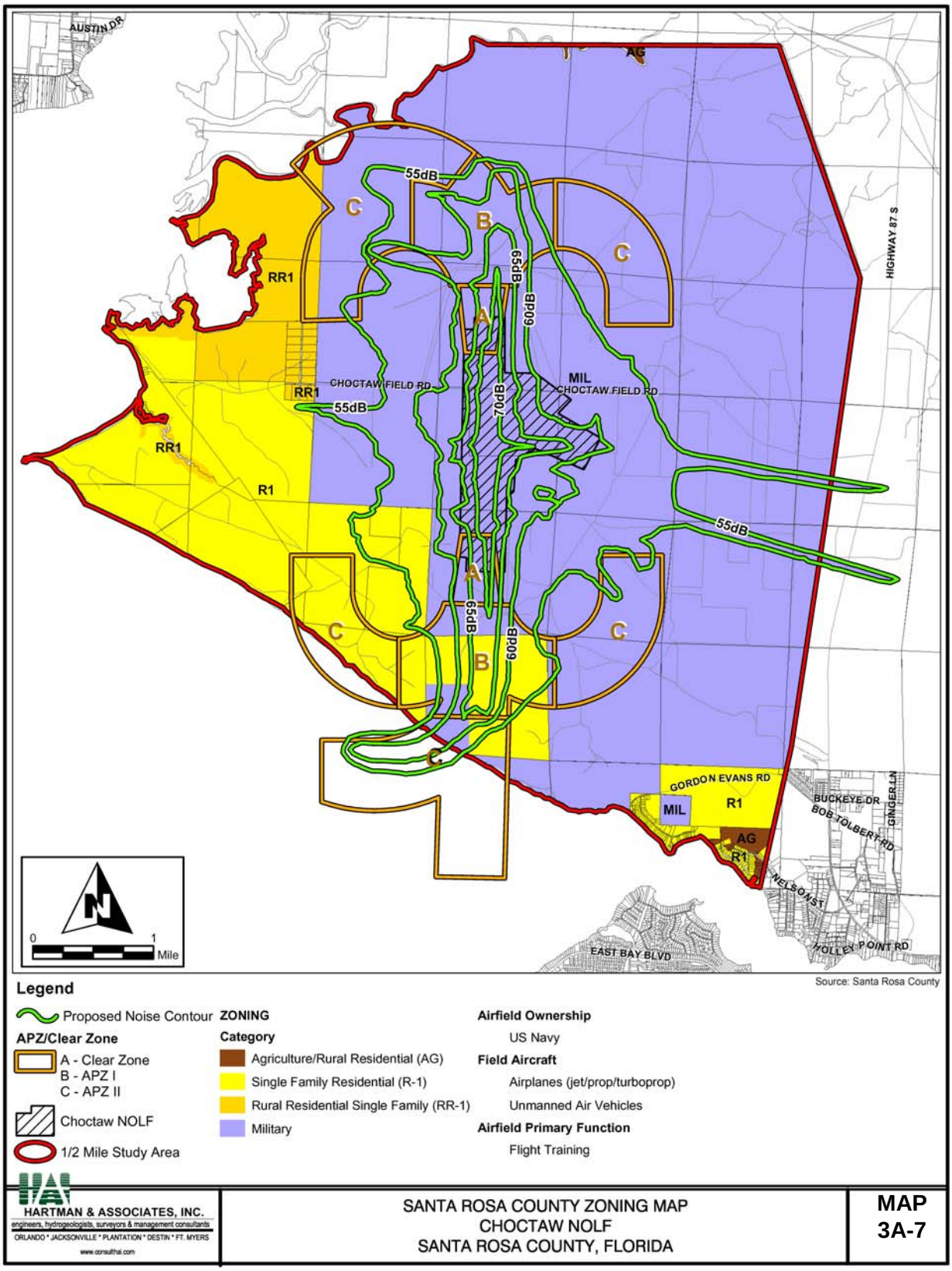
SANTA ROSA COUNTY FUTURE LAND USE MAP
CHOCTAW NOLF
SANTA ROSA COUNTY, FLORIDA
Map 3A-6


S:\Projects\SSANTAROS\02039200\Maps\Choctaw\ReportAPZ-P.MXD [08-06-03 bam]
AUSTIN DR
AG
55dB
C
B
RR1
65dB
BPD09
HIGHWAY 87 S
A
MIL
CHOCTAW FIELD RD
BPD07
55dB
R1
GORDON EVANS RD
BUCKEYE DR
BOB TOLBERT RD
GINGER LN
NELSON ST
HOLLEY POINT RD
EAST BAY BLVD
0
1
Mile
Source: Santa Rosa County
Legend
Proposed Noise Contour
APZ/Clear Zone
A - Clear Zone
B - APZ I
C - APZ II
Choctaw NOLF
1/2 Mile Study Area
ZONING
Category
Agriculture/Rural Residential (AG)
Single Family Residential (R-1)
Rural Residential Single Family (RR-1)
Military
Airfield Ownership
US Navy
Field Aircraft
Airplanes (jet/prop/turboprop)
Unmanned Air Vehicles
Airfield Primary Function
Flight Training
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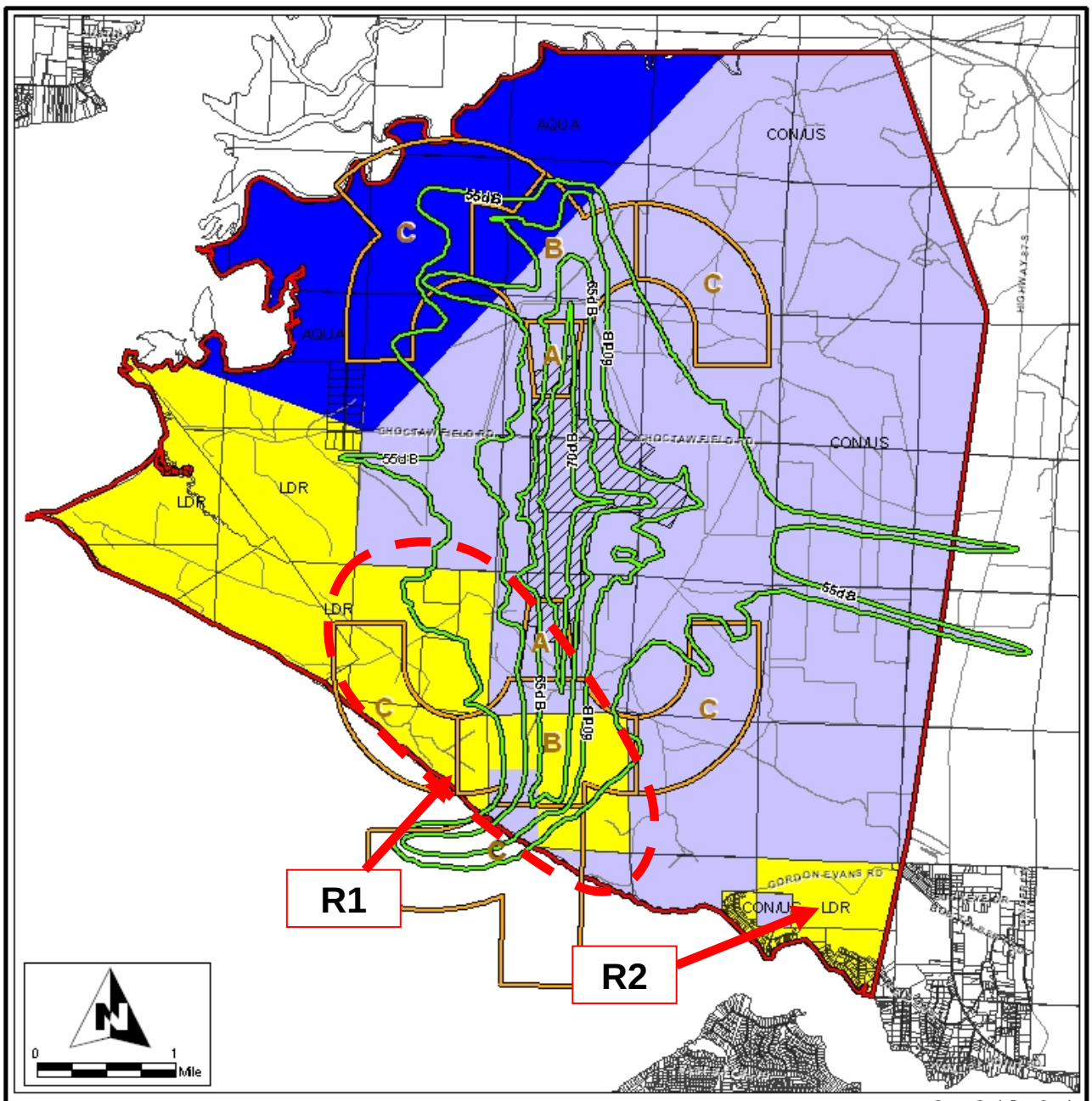
SANTA ROSA COUNTY ZONING MAP
CHOCTAW NOLF
SANTA ROSA COUNTY, FLORIDA
MAP
3A-7



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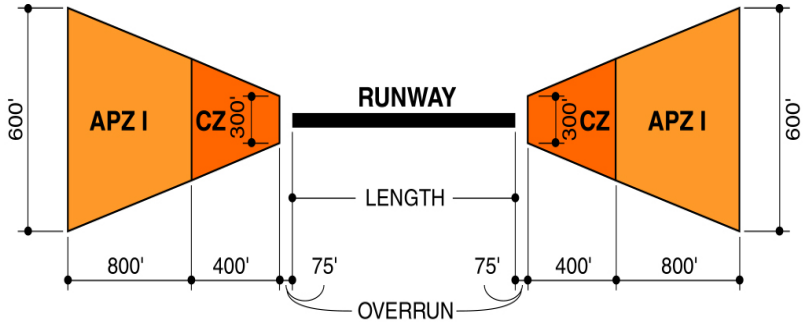
SANTA ROSA COUNTY FUTURE LAND USE MAP
CHOCTAW NOLF
SANTA ROSA COUNTY, FLORIDA

Map 3A-8

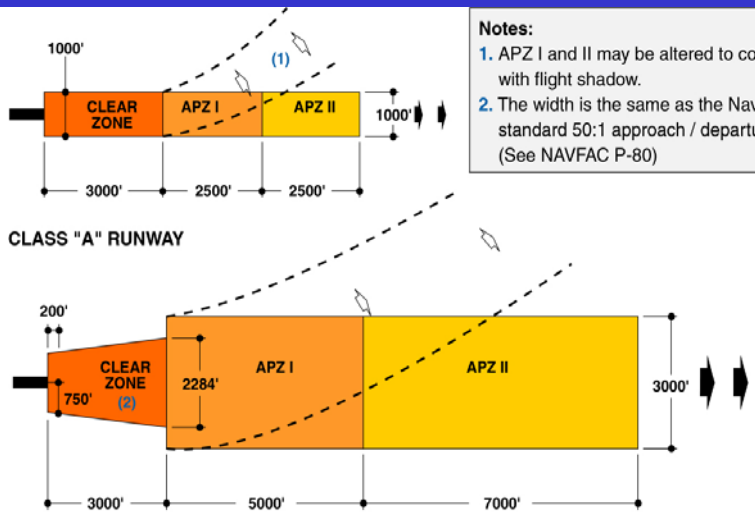
HELICOPTER ACCIDENT POTENTIAL ZONES



APZ II is normally not applied to helicopter flight path unless local accident history indicated need for additional protection

OPNAVINST 11010.36A

FIXED WING ACCIDENT POTENTIAL ZONES



Notes:
1. APZ I and II may be altered to conform with flight shadow.
2. The width is the same as the Navy standard 50:1 approach / departure fan. (See NAVFAC P-80)

APPENDIX B

ACCIDENT POTENTIAL ZONES FOR HELICOPTERS AND FIXED-WING AIRCRAFT

Figure 3B-1

APPENDIX 3C

GLOSSARY OF MILITARY AIRCRAFT USING NOLF CHOCTAW

This appendix provides Santa Rosa County's civilian residents with illustrations of the type of aircraft frequently or occasionally using NOLF Choctaw. An aircraft classification, such as an F-18 aircraft or H-60 helicopter, may have been manufactured in different models, called variants, according to various specifications required by the branch of military using them. For example the H-60 helicopter has approximately 35 variants to function for cargo (CH-60), special electronic installation (SH-60), search and rescue (HH-60), multi-mission (MH-60), anti-submarine warfare (SH-60), utility (UH-60), and staff transport (VH-60). Appearance of aircraft will also vary based on military branch requirements, such as color and identification markings. Aircraft other than those shown below may also use NOLF Choctaw. Aircraft using NOLF Choctaw are based at NAS Whiting Field, other NAS military airfield, airfields of other military branches, or USN aircraft carriers. After aircraft visit NOLF Choctaw airspace for training or practice purposes, they return to their home field or carrier.

Source: Text and pictures appearing in Appendix 3B were obtained from the United States Navy from various official Navy websites.

	**T-34C** *Mentor* is a single-engine, two-seat primary train designed to train Navy student aviators. Engine type – turboprop. The *Mentor* will eventually be replaced by the T-6A shown below.
	**T-6A** *Texan II* is a single-engine, two-seat primary trainer designed to train Joint Primary Pilot Training (JPPT) students in basic flying skills common to U.S. Air Force and Navy pilots. Both Navy and Air Force primary training will eventually utilize the Texan II, which has special power management and automatic trim devices that make it handle much like a jet-powered aircraft.
	**UAV** *Pioneer* is an unmanned aerial vehicle (UAV) system that performs a wide variety of reconnaissance, surveillance, target acquisition and battle damage assessment missions. The *Pioneer* is power by a two-cycle engine known for its distinct sound. NOLF Choctaw is the home for the Navy's unmanned aerial vehicle school.
	**F-18** *Hornet*, also used by the Navy's Blue Angles, is an all-weather aircraft, used as an attack aircraft as well as a fighter. In its fighter mode, the F/A-18 jet is used primarily as a fighter escort and for fleet air defense; in its attack mode, it is used for force projection, interdiction and close and deep air support.

	**AV-8** *Harrier* is a single-seat, light attack aircraft that provides offensive air support to the Marine Air-Ground Task Force (MAGTF). By virtue of its Vertical/Short Take-Off or Landing (V/STOL) capability, the AV-8B can operate from a variety of amphibious ships, rapidly constructed expeditionary airfields, forward sites (e.g., roads), and damaged conventional airfields.
	**T-2** *Buckeye* is a basic jet trainer used by the Naval Air Training Command to conduct basic jet flight training for future Navy and Marine Corps aviators. Over the next few years the T-45 Goshawk will replace the T-2 Buckeye in the Intermediate Jet Pilot Training Program.
	**F-14** *Tomcat* is a supersonic, twin-engine, variable sweep wing, two-place fighter designed to attack and destroy enemy aircraft at night and in all weather conditions.
	**E-2** *Hawkeye* is the Navy's all-weather, carrier-based tactical warning and control system aircraft.
	**C-130** *Hercules,* a four-engine turboprop aircraft, is the workhorse of the military services. Capable of landing and taking off from short, rough dirt runways, it is a people and cargo hauler and is used in a wide variety of other roles. It also used by the Blue Angles to haul support equipment to public air shows.

T-44 *Pegasus* is the military version of the Beechcraft King Air 90 and is used as a twin turboprop advanced pilot trainer**.**

T-45 *Goshawk* is a jet trainer used for intermediate and advanced portions of the Navy pilot training program for jet carrier aviation and tactical strike missions. The primary mission of the T-45 is to provide Navy strike flight training.

EA-6B *Prowler* provides an umbrella of protection over strike aircraft, ground troops and ships by jamming enemy radar, electronic data links and communications.

TH-57 *SeaRanger* is primarily used for training, but these aircraft are also used by the Navy for photo, chase and utility missions. At NAS Whiting Field and its NOLFs, the TH-57 is predominantly used for primary and advanced training.

H-1 *Iroquois* UH-1 has been the quintessential all-purpose military helicopter for over three decades. It has been used by all four U.S. services, and international forces. At NAS Whiting Field it is primarily used as a freight or personnel transport helicopter. Designed by Bell Corporation, the H-1 was produced in two major models using either a single engine or twin engines.

H-3 *Sea King* is a twin engine, all-weather helicopter. The Navy and Air Force uses this helicopter for multiple purposes.

H-46 *Sea Knight* is a twin-turbine tandem-rotor cargo transport helicopter. This aircraft's primary mission areas in the Navy and Marine Corps include Combat Logistics Support and Vertical Replenishment (VERTREP), Search and Rescue, and Special Operations.

H-53 *Sea Stallion* is a medium lift helicopter designed to transport personnel, supplies and equipment in support of amphibious and shore operations.

H-60 *Black Hawk* is a twin-engine, medium lift, utility or assault helicopter.

H-67 *Creek* is a state-of-the-art helicopter used for initial entry rotary wing training. It replaced the aging UH-1H, which s a twin-engine, medium lift, utility or assault helicopter.