Chapter 5

NALF Fentress

5.0 NALF FENTRESS

5.1 Background

NALF Fentress is located 7 miles southwest of NAS Oceana in the City of Chesapeake, Virginia. The facility comprises 2,560 acres, with an additional 8,780 acres in restrictive easements. NALF Fentress is used by squadrons stationed at NAS Oceana and NAVSTA Norfolk Chambers Field for FCLP operations. These operations are intended to familiarize the pilot with aircraft carrier landings and must be conducted under both daytime and nighttime operational conditions. Prior to deployments, the local community may experience increased operations, as pilots complete training exercises. The NALF Fentress traffic pattern is limited to five aircraft. Aircraft that regularly use the field include C-2A, E-2C, F-14 and F/A-18. On occasion, rotary-wing aircraft use the field and surrounding property for training operations.

5.2 History

The original airfield used for Navy training was established in 1940. The runways and ramp space for the propeller aircraft of World War II can be clearly seen on the northwestern portions of the property. Beginning in the 1970's, the Navy established the primary runway and taxiway that runs northeast to southwest. Over the years the World War II airfield pavement has been used for a variety uses including fire fighting training, and law enforcement vehicular training.

5.3 Aviation Activities

NALF Fentress is used exclusively as an auxiliary landing field for aircraft practicing FCLPs, and has no permanently homebased aircraft. In the future, NALF Fentress will continue to be used exclusively for aircraft pilot training.

5.4 Summary of Current and Future Air Operations

Pilots perform approximately 135,000 operations annually at NALF Fentress. These numbers were calculated using the NASMOD, which simulates an "average" year based on a set of assumptions derived from various inputs, including the number and type of aircraft, squadron training syllabus, other airspace users, designated flight tracks, air traffic control procedures, and schedules.

In the future, the number of annual operations at NALF Fentress is projected to decrease by 58 percent. This projected decrease is primarily due to the proposed construction of a new OLF in northeast North Carolina. The new OLF is being considered to provide for operational flexibility and to mitigate noise. It is assumed that 100 percent of the FCLPs performed by the F/A-18 Super Hornet away from NAS Oceana will be performed at the proposed OLF vice NALF Fentress. See Chapter 2.0 for a detailed breakdown of current and future air operations at NALF Fentress.

Although air operations are projected to decrease in the future, NALF Fentress is required to provide operational flexibility through increased availability of FCLP training periods particularly important during surge operations, or when two or more carrier air wings or FRSs must simultaneously prepare for carrier operations, or when one site becomes unusable due to maintenance or weather. As demonstrated by operations Enduring Freedom in Afghanistan and, more recently, Iraqi Freedom in Iraq, Navy carrier forces must be capable of deploying up to seven carrier battle groups simultaneously. Significant operational difficulties are encountered at NALF Fentress when more than one carrier air wing and an FRS require FCLP training. In recent years, such convergences of schedules have resulted in undertaking costly measures to ensure aircrew were properly trained because NALF Fentress, with its restrictions, could not accommodate all FCLP requirements. The

rapidly changing strategic environment emerging from the global war on terrorism and the campaigns in Afghanistan and Iraq requires naval forces that can deliver persistent and credible combat power through both rotational deployments and surge readiness.

In May 2003, the Navy developed a new inter-deployment readiness profile, the "Fleet Response Concept" (FRC) that will improve the Navy's speed of response to world events. The FRC is currently being developed into a Fleet Response Plan (FRP). When implemented, the FRP will modify current ship and squadron operating cycles by adjusting maintenance intervals, along with training and manpower processes, to increase unit availability for surge operations – that is, building the long-term institutional capability to support rapid, massive build-up in deployed naval forces. The FRP will reapportion existing assets and funding to prepare naval forces in a more efficient manner while allowing greater flexibility for surge operations. As currently envisioned, FRP will be implemented with no increase in force structure and with little or no additional operational funding. Therefore, over the long term, it is anticipated that there will be minimal change to the total number of flight operations at the homebase and supporting OLFs.

If the Navy is ordered to surge multiple aircraft carriers and their associated air wings, there will be a concentrated period of higher operational tempo, including FCLP and other flight operations, as squadrons prepare to deploy, followed immediately by a corresponding decrease in such operations once those forces deploy. During these surge periods, existing facilities do not have the capacity to meet the Atlantic Fleet's FCLP requirements efficiently.

NALF Fentress operating in conjunction with a second OLF increases the number of available FCLP periods earlier in the evening, thus reducing the number of late-night operations at both OLFs as well as the homebases.

In the future, NALF Fentress will continue to operate as an OLF for the Mid-Atlantic Region, primarily supporting F/A-18 "Hornet", E-2C, and C-2A FCLP operations.

5.5 Summary of Existing Assets and Future Needs

5.5.1 Airfield Pavements

An Airfield Condition Survey on the airfield pavements at NALF Fentress was conducted by the Pavement Evaluation Team from Atlantic Division, Naval Facilities Engineering Command in January 2002. The survey (a visual inspection) was performed on the airfield pavements and the results and the Load Carrying Capacity Evaluation performed by the Pavement Evaluation Team in 1997 were evaluated concurrently in order to determine the optimum times to apply required maintenance. The purpose of the report is to provide to the Station and the Major Claimant maintenance and repair recommendations for the pavements evaluated. All runway, taxiway and Simulated Carrier Deck pavements trafficked by aircraft at NALF Fentress are rated as being in good to excellent condition. However, the threshold pavements and the Simulated carrier Decks are anticipated to require increased maintenance in the near future because of their age and relatively high use. Table 5.1 shows the airfield pavements at NALF Fentress and the average PCI and condition as reported in the 2002 report. Figure 5-1 shows the pavement designations.

5.5.1.1 Runways

NALF Fentress has one 8,000 LF by 200 LF Class B runway designated Runway 05/23. Aircraft flying patterns approaching or departing from NALF Fentress normally fly specific routes, or flight

tracks. Flight tracks are represented as single lines on maps and other graphics and depict the average route of the aircraft over the ground. These tracks are affected by aircraft performance, pilot technique, other air traffic, and weather conditions, such that actual flight track is a band that covers one-quarter mile on either side of the average flight track. Arrival, departure, FCLP, and inter-facility flight tracks between NAS Oceana and NALF Fentress associated with the primary runways, Runways 05L/23R, are depicted in Figure 5-2. lFlight Tracks are depicted in Figure 5-3.

5.5.1.2 Taxiways

NALF Fentress has a parallel taxiway that runs the entire length of Runway 05/23. In addition, there are three (3) intermediate taxiways that provide access to and from the parallel taxiway and runway.

5.5.1.3 Other Airfield Pavements

Other airfield pavements at NALF Fentress include three (3) towways that are not actively used for aircraft operations. Table 5.2 shows the other airfield pavements and current condition.

5.5.2 Auxiliary Landing Field Support Facilities

Since there are no permanently homebased aircraft at NALF Fentress, there are no aircraft maintenance (organization, intermediate, or depot) facilities located here. The only facilities are those required to support the aircraft training functions performed at NALF Fentress. Support facilities at NALF Fentress are concentrated in a series of buildings northwest of the runway. (See Figure 5.3) Building 100 contains the crash truck, equipment and crew, air operations and tower, as well as housing and dining facilities for the support personnel. No changes are expected for these facilities. Table 5.3 is a list of support facilities at NALF Fentress.

Figure 5-1
Aerial View
of NALF Fentress

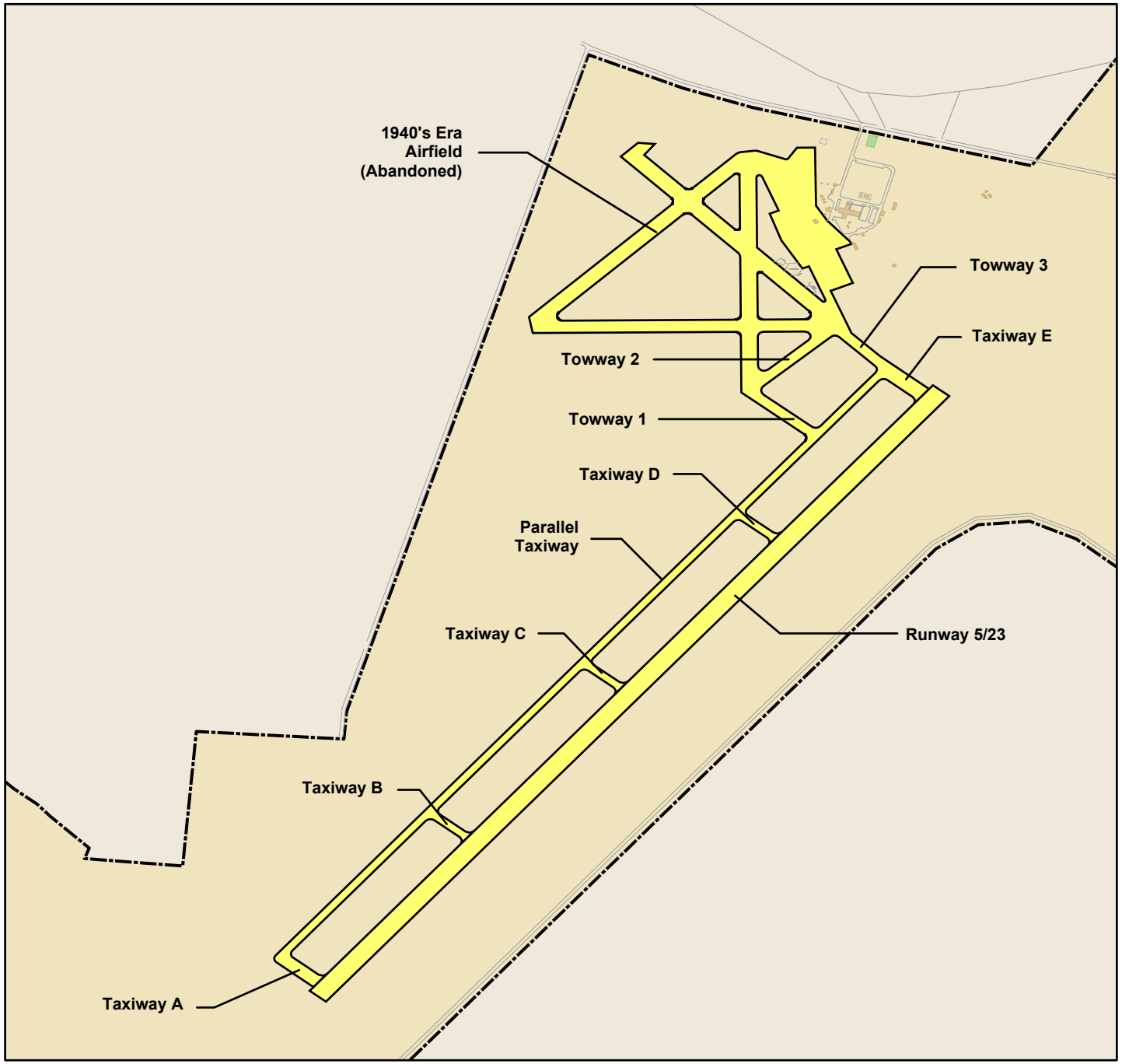
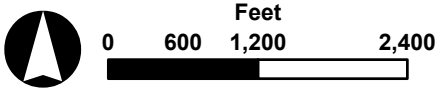


Figure 5-2

NALF Fentress
Airfield Pavements



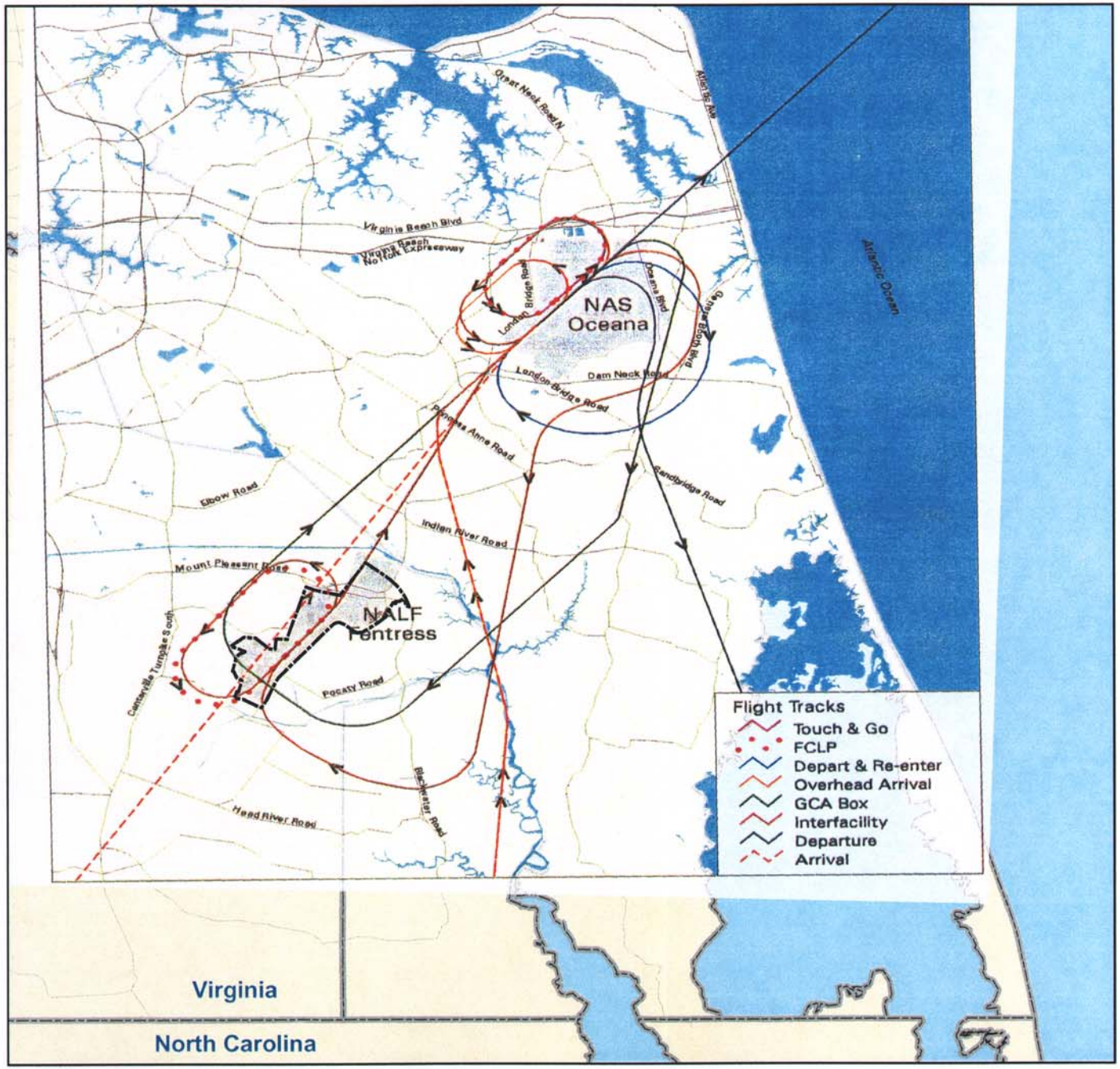


Figure 5-3

NALF Fentress
Primary Flight Tracks

Table 5-1 Summation of NALF Fentress Airfield Pavements

Category Code	Designation	U/M	Total Quantity	Length (Linear Feet)	Width (Linear Feet)	Avg PCI	Condition	Comments
111-10	Runway 05/23	SY	155,556	8,000	175			
112-10	Parallel Taxiway	SY	18,469			87	E	
112-10	Taxiway "A"	SY	92,700			96	E	
112-10	Taxiway "B"	SY	57,508			98	E	
112-10	Taxiway "C"	SY	32,253			76	VG	
112-10	Taxiway "D"	SY	31,000			83	VG	
112-10	Taxiway "E"	SY	5,791			86	VG	

Table 5-2 Other Airfield Pavements at NALF Fentress

Category Code	Designation	U/M	Total Quantity	Length (Linear Feet)	Width (Linear Feet)	Avg PCI	Condition	Comments
116-50	Tow-way "1"	SY						
116-50	Tow-way "2"	SY						
116-50	Tow-way "3"	SY						

Table 5.3 Existing Support Facilities at NALF Fentress

Category Code	Facility Number	Designation	U/M	Total Quantity	Condition	Comments
123-10	115	Filling Station	OL/GM	1/24	A	
125-20	104	O/W Separator Bldg.	SF	768	A	
126-40	103	Truck Unl Fac	OL	2	A	
141-20	106	A/C Fire and Rescue Sta.	SF	1,200	A	
141-20	88	Fire Fighting Gear Stg	SF	160	I	
143-75	105	Fuels Lab	SF	960	A	
143-78	110	Op Hazardous/Flam Stg	SF	81	A	
218-61	101	GSE Holding Shed	SF	920	A	
219-77/740-44	102	PW Stg/Indoor Fitness Fac.	SF	490/490	A	
721-11	100	BEQ	SF	12,511	A	
750-30	99	Outdoor Swimming Pool	EA	1	A	

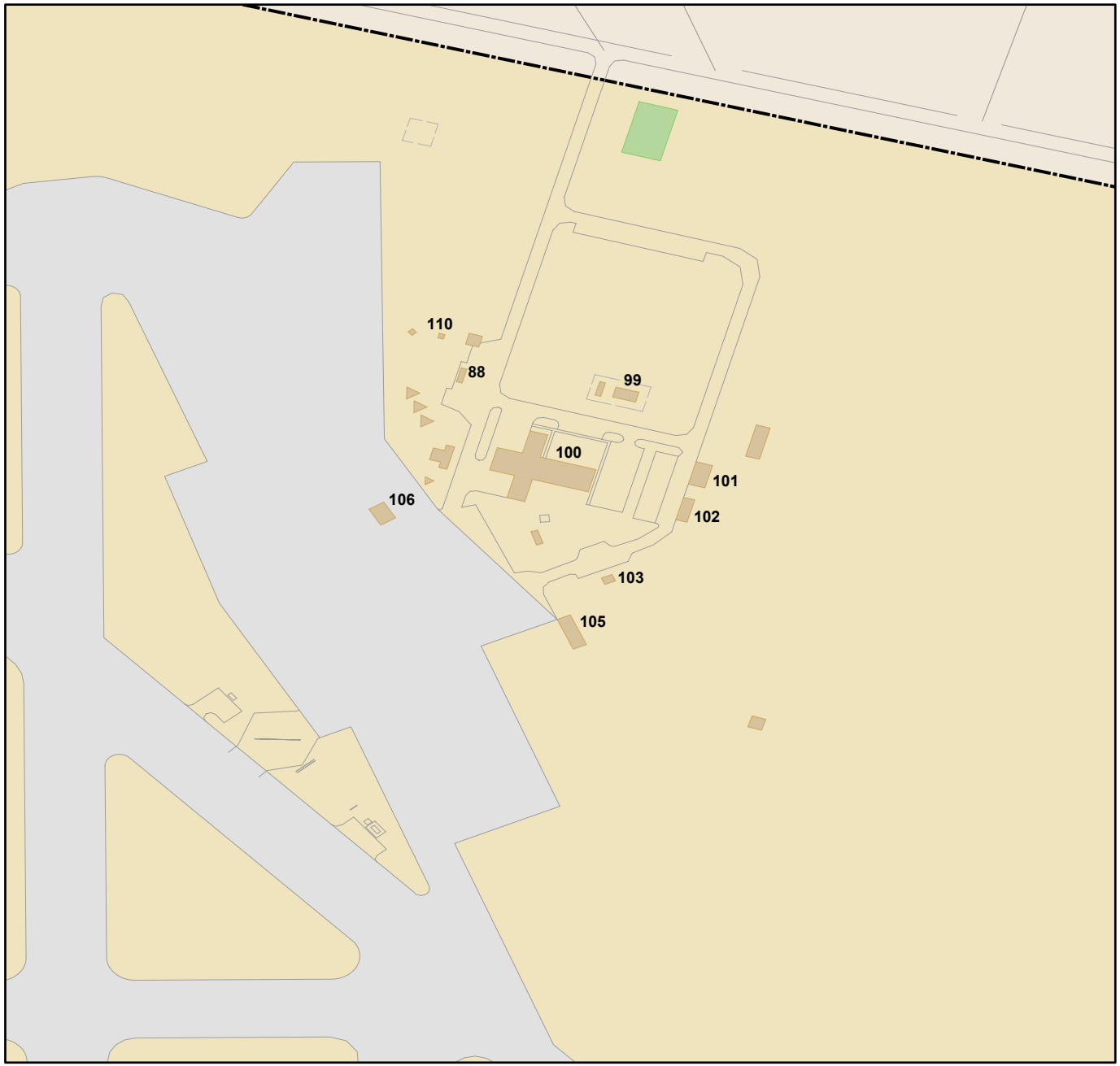


Figure 5-4

NALF Fentress Support Facilities

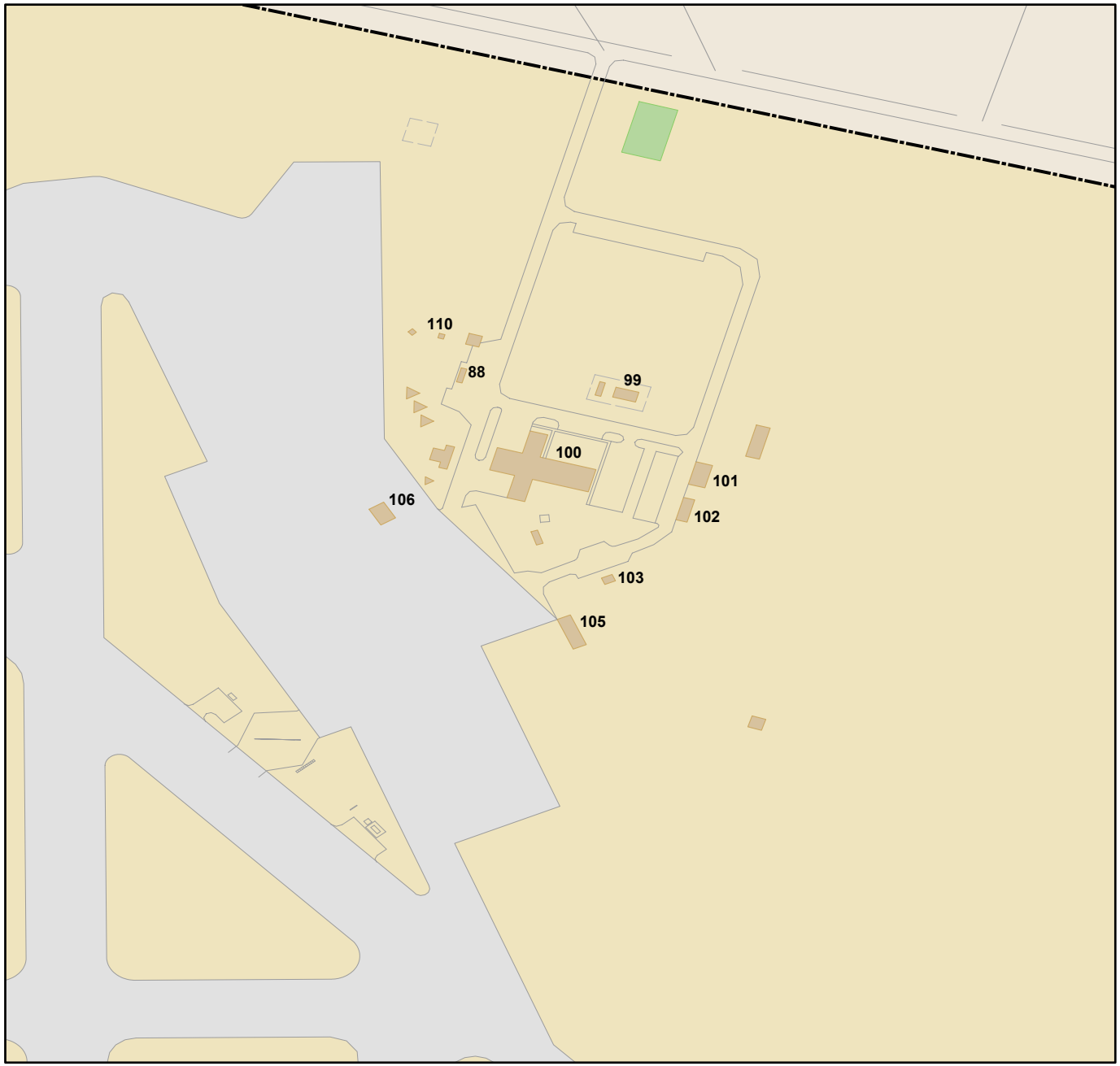


Figure 5-5

NALF Fentress Development Plan