Chapter 4

NAS Oceana

4.0 NAS OCEANA

4.1 Background

NAS Oceana consists of 5,331 acres located south of U.S. Route 264 between Oceana Boulevard and Lynnhaven Parkway in Virginia Beach, Virginia. The airfield at NAS Oceana, Apollo Soucek Field, includes three runways of 8,000 feet each and a primary runway of 12,000 feet. NAS Oceana is one of the largest and most advanced air stations in the world and it operates as the Navy's East Coast Master Jet Base; it is designed to accommodate high-performance combat aircraft.[1] Oceana's primary mission is to train and deploy the Navy's fighter/attack squadrons. Aircraft that are currently homebased at NAS Oceana include F-14 , F/A-18 , H-3 helicopters and T-34 trainers. NAS Oceana also accommodates a large number of transient aircraft for training detachments, as well as passenger and air cargo missions.

4.2 HISTORY

The initial airfield property was acquired in 1940 as part of the Navy's desire to establish an outlying field for NAS Norfolk. In 1940, as an Auxiliary Airfield, Oceana was originally 328 acres of primarily open agricultural and swamp land in a decidedly rural portion of Princess Anne County (later merged with the City of Virginia Beach in 1963). Wartime growth pushed its status to a Naval Air Auxiliary Station on August 17, 1943, and by wars end the number of men and aircraft aboard had tripled. In 1952, Oceana was designated a Naval Air Station and the Master Jet Base concept was taking shape. By 1953 Oceana was an all-weather air station, and by 1957 it was officially designated a Master Jet Base. Figure 4-1 depicts the Naval Air Station and the surrounding area. Figure 4-2 illustrates the development constraints including: Accident Potential Zones, Explosive Quantity Distant Arcs, Wetlands, and Installation Restoration sites.

[1] Draft Environmental Impact Statement for Introduction of the Super Hornet (F/A-18 E/F) Aircraft to the East Coast of the United States. June 2002.

Figure 4-1
Aerial View
of NAS Oceana

Figure 4-2

4.3 Aviation Activities

4.3.1 Current Permanent Party Aircraft

NAS Oceana is home to the Commander, Fighter Wing (COMFITWINGLANT) and Commander, Strike Fighter Wing (COMSTRKFITWINGLANT) of the U.S. Atlantic Fleet. In addition, Naval Air Reserve squadron VFC-12 is located at NAS Oceana. The Air Operations department of NAS Oceana maintains and operates the station H-3 aircraft at NAS Oceana. Table 4-1 depicts current permanent party aircraft at NAS Oceana.

Table 4-1 Current (FY03) Permanent Party Aircraft at NAS Oceana

Designation	Aircraft Type	Number of Aircraft
Fixed Wing	F-14 Tomcat	98
Fixed Wing	F-18 Hornet	152
Fixed Wing	T-34 Mentor	6
Rotary Wing	H-3 Sea King	3
Total Current Permanent Party		**259**

4.3.1.1 COMFITWINGLANT

COMFITWINGLANT is composed of the Wing staff and provides logistics and administrative support to fleet F-14 squadrons, one composite squadron, and one FRS. The FRS for the F-14 aircraft (VF-101) is located at NAS Oceana. In 1996, all active duty F-14 squadrons, with the exception of VF-154, were relocated to NAS Oceana. Currently, F-14 squadrons are transitioning, on a staggered schedule, to F/A-18E/F aircraft. Some F-14 squadrons previously located at NAS Oceana have recently moved to NAS Lemoore in California to begin the transition process. As of September 2003, the following fleet F-14 squadrons are located at NAS Oceana: VF-11, VF-31, VF-32, VF-103, VF-143, VF-211, and VF-213. Personnel and aircraft loading associated with COMFITWINGLANT are shown in Table 4-2.

Table 4-2 COMFITWINGLANT Existing Conditions

Organization/Unit	Personnel Loading	Aircraft Type	Number of Aircraft
COMFITWINGLANT	64	N/A	N/A
VF-101	879 [2]	F-14A	5
VF-101		F-14B	9
VF-101		F-14D	8
VF-11	272	F-14B	11
VF-31	272	F-14D	11
VF-32	272	F-14B	11
VF-103	272	F-14B	10
VF-143	272	F-14B	11
VF-211	272	F-14A	11
VF-213	272	F-14D	11
Total Existing	**2,874**		**98**

4.3.1.2 COMSTRKFITWINGLANT

COMSTRKFITWINGLANT is composed of the Wing staff and exercises operational and administrative command over one FRS and managerial command over 11 East Coast operational F/A-18 Hornet squadrons. The East Coast FRS for the F-18 Hornet aircraft (VFA-106) is located at NAS Oceana. In 1998, all active duty F-18 Hornet squadrons, with the exception of VFA-82 and VFA-86, were relocated to NAS Oceana. The following fleet F-18 Hornet squadrons are located at NAS Oceana: VFA-15, VFA-34, VFA-37, VFA-81, VFA-83, VFA-87, VFA-105, VFA-131, and VFA-136. In addition, COMSTRKFITWINGLANT operates six T-34 trainer

[2] Includes replacement pilots

aircraft. Personnel and aircraft loading associated with COMSTRKFITWINGLANT are shown in Table 4-3.

Table 4-3 COMSTRKFITWINGLANT Existing Conditions

Organization/Unit	Personnel Loading	Aircraft Type	Number of Aircraft
COMSTRKFITWINGLANT	99	T-34	6
VFA-106	651 [3]	F/A-18B	4
VFA-106		F/A-18C	12
VFA-106		F/A-18D	16
VFA-15	210	F/A-18C	12
VFA-34	210	F/A-18C	12
VFA-37	210	F/A-18C	12
VFA-81	210	F/A-18C	12
VFA-83	210	F/A-18C	12
VFA-87	210	F/A-18C	12
VFA-105	210	F/A-18C	12
VFA-131	210	F/A-18C	12
VFA-136	210	F/A-18C	12
Total Existing	**2,640**		**146**

4.3.1.3 Navy Air Reserve Squadron

There is one fixed Naval Air Reserve squadron, VFC-12, located at NAS Oceana. VRC-12 is the Naval Reserve's premier adversary squadron and a component of Carrier Air Wing Reserve (CVWR) 20. VFC-12 is composed of selected reservists, full-time reservists (TARS) and active duty personnel. Personnel and aircraft loading associated with this squadron are shown in Table 4-4

Table 4-4 Naval Air Reserve Squadron Existing Conditions

Organization/Unit	Personnel Loading	Aircraft Type	Number of Aircraft
VFC-12	254	F/A-18A F/A-18B	10 2

4.3.1.4 Other Permanent Party Aircraft

The Air Operations Department at NAS Oceana operates and maintains H-3 rotary-wing aircraft. The primary mission of these permanently based aircraft is pilot search and rescue (SAR). There are 39 personnel assigned to the SAR mission at NAS Oceana.

4.3.2 Current Transient Aircraft

NAS Oceana acts as an alternative to Chambers Field for the Air Mobility Command and regularly hosts various detachments from the Navy and other branches of the military. Table 4-5 shows a typical daily transient aircraft load at NAS Oceana.

Table 4-5 Existing Typical Transient Aircraft Loading

Designation	Aircraft Type	Number of Aircraft
Transient	F/A-18 C	5
Transient	KC-135	1
Transient	C-130	1
Total Transient		**7**

[3] Includes Replacement Pilots

4.3.3 Future Permanent Party Aircraft

In the future much of the change to permanent party aircraft numbers and mix will be due to the introduction of the F-18, Super Hornet, fixed-wing aircraft and the retirement of the F-14, Tomcat, fixed wing aircraft. By 2012, NAS Oceana will have a decrease of 37 permanent party aircraft from current levels. This represents a 14.3 percent decrease. Table 4-6 shows the projected permanent party aircraft at NAS Oceana and Table 4-7 shows a comparison of current and projected permanent party aircraft at NAS Oceana.

Table 4-6 Projected (2012) Permanent Party Aircraft at NAS Oceana

Designation	Aircraft Type	Number of Aircraft
Rotary Wing	MH-60S	2
Fixed Wing	T-34	6
Fixed Wing	F/A-18A	10
Fixed Wing	F/A-18B	5
Fixed Wing	F/A-18C	70
Fixed Wing	F/A-18D	8
Fixed Wing	F/A-18E	43
Fixed Wing	F/A-18F	77
Total Projected Permanent Party		**221**

Table 4-7 Comparison of Current (2003) and Projected (2012) Permanent Party Aircraft at NAS Oceana

Designation	Aircraft Type	Current Number of Aircraft	Projected Number of Aircraft
Rotary Wing	H-3	2	0
Rotary Wing	MH-60S	0	2
Fixed Wing	T-34	6	6

Table 4-7 cont.

Designation	Aircraft Type	Current Number of Aircraft	Projected Number of Aircraft
Fixed Wing	F-14A	16	0
Fixed Wing	F-14B	52	0
Fixed Wing	F-14D	30	0
Fixed Wing	F/A-18A	10	10
Fixed Wing	F/A-18B	6	5
Fixed Wing	F/A-18C	120	70
Fixed Wing	F/A-18D	16	8
Fixed Wing	F/A-18E	0	43
Fixed Wing	F/A-18F	0	77
Total Projected Permanent Party		**258**	**221**

4.3.4 Future Transient Aircraft

Although it is anticipated that future transient aircraft loads will not change significantly from current levels, the type and mix of aircraft may change. For example, the F/A-18 Super Hornet aircraft will replace some of the older F/A-18 Hornet aircraft. Table 4-8 shows projected typical daily transient aircraft loading and Table 4-9 shows a comparison of current and projected (2012) typical daily transient aircraft loading.

Table 4-8 Projected Typical Daily Transient Aircraft (2012)

Designation	Aircraft Type	Number of Aircraft
Transient	F/A-18 C	4
Transient	F/A-18 E	3
Transient	KC-135	1
Transient	C-130	1
Total Transient		**9**

Table 4-9 Comparison of Current (2003) and Projected Typical (2012) Daily Transient Aircraft

Designation Aircraft Type		Number of Aircraft	
		2003	2012
Transient	F/A-18 C	5	4
Transient	F/A-18 E	0	3
Transient	KC-135	1	1
Transient	C-130	1	1
Total Transient		**7**	**9**

4.3.4.1 COMFITWINGLANT

To meet an ever-changing military mission and ensure operational readiness, the U.S. Atlantic Fleet is replacing the F-14 Tomcat and some of the earlier-model F-18 Hornet aircraft with the F/A-18 Super Hornet aircraft. Introduction of the F/A-18 Super Hornet into the fleet will meet the need of Naval Aviation for an upgraded aircraft with increased range and endurance, the ability to carry heavier payloads, features that enhance survivability, and the flexibility to incorporate future systems and technologies to meet emerging threats. The F/A-18 Super Hornet will be available in two distinct models. The "E" model is the single-seat version and the "F" model is the two-seat version. In late 2000, the Navy initiated the preparation of an Environmental Impact Statement to evaluate the environmental consequences of the Department of the Navy's proposed action to provide facilities and functions to support the homebasing and operation of 10 fleet F/A-18 Super Hornet squadrons and one F/A-18 FRS squadron planned for assignment to the U.S. Atlantic Fleet. The Navy developed a reasonable range of siting alternatives for homebasing the F/A-18 Super Hornet squadrons. Five of the eight alternatives developed included NAS Oceana as a potential homeport site. In September 2003, the acting Secretary of the Navy signed the Record of Decision assigning eight fleet F/A-18 Super Hornet squadrons and the F/A-18 Super Hornet FRS to NAS Oceana. As part of the transition and eventual phase-out of the F-14 Tomcat, COMFITWINGLANT will be transitioned into COMSTRKFITWINGLANT. By the year 2012, all operational fleet squadrons and the FRS from NAS Oceana will be under the management of COMSTRKFITWINGLANT.

4.3.4.2 COMSTRKFITWINGLANT

As stated previously, all F-14s and some of the earlier model F-18 Hornet aircraft will be replaced by the F/A-18 Super Hornet. By the year 2012, all operational fleet squadrons and the FRS at NAS Oceana will be under the administrative and operational control of COMSTRKFITWINGLANT. Projected (FY 2012) personnel and aircraft loading associated with COMSTRKFITWINGLANT are shown in Table 4-10.

Table 4-10 COMSTRKFITWINGLANT Projected FY 2012 Loading[4]

Organization/Unit	Personnel Loading	Aircraft Type	Number of Aircraft
COMSTRKFITWINGLANT	158	T-34	6
VF(A)-211	298	F/A-18F	12
VFA-34	210	F/A-18C	10
VFA-83	210	F/A-18C	10
VF(A)-103	298	F/A-18F	12
VFA-37	210	F/A-18C	10
VFA-131	210	F/A-18C	10
VFA-136	210	F/A-18C	10
VF(A)-11	261	F/A-18E	12
VF(A)-143	298	F/A-18F	12

[4] Source: TSPAT 32 Change 1

Table 4-10 continued

Organization/Unit	Personnel Loading	Aircraft Type	Number of Aircraft
VFA-15	261	F/A-18C	12
VFA-87	210	F/A-18C	10
VF(A)-213	298	F/A-18F	12
VFA-106	1,113[5]	F/A-18B	3
		F/A-18C	10
		F/A-18D	8
		F/A-18E	7
		F/A-18F	17
VFA-105	261	F/A-18E	12
VFA-32	298	F/A-18F	12
Totals	**4,804**		**207**

4.3.4.3 Navy and Marine Corps Air Reserve Squadrons

In the future, it is anticipated that there will be no significant changes to current personnel loading and aircraft loading for Naval Air Reserve squadron VFC-12. Refer back to Table 4-4 for proposed personnel and aircraft loading for VFC-12.

4.3.4.4 Other Permanent Party Aircraft

In the future, it is anticipated that there will be no significant changes to current personnel loading for the SAR mission performed by the Air Operations department at NAS Oceana. However, as part of the Navy's rotary wing transition plan, it is anticipated that the SAR mission will transition to the H-60 aircraft some time prior to 2012. Projected personnel associated with the Air Operations Department is 39. Projected aircraft loading is two H-60s.

4.3.4.5 Comparison of Projected Aircraft

As noted in Chapter 2, there is a reduction in the total number of by the year 2012. Table 4-11 shows the projected permanent party aircraft for 2015. Table 4-11 shows a comparison between the years 2003 and 2015.

Table 4-11 Comparison of Current (2003) and Projected (2012) Permanent Party Aircraft at Chambers Field

Designation	Aircraft Type	Current Number of	Projected Number of
Fixed Wing	F-14	98	0
Fixed Wing	F-18 Hornet	152	97
Fixed Wing	F-18 Super Hornet	0	120
Fixed Wing	T-34	6	6
Rotary Wing	H-3	3	0
Rotary Wing	MH-60S	0	3
Total Current Permanent Party		**259**	**226**

[5] Includes Hornet and Super Hornet Replacement Pilots.

4.4 Summary of Current and Future Air Operations

Currently pilots perform approximately 208,000 air operations annually at NAS Oceana. These numbers were calculated using the Naval Aviations Simulation Model (NASMOD), which simulates an "average" year on the basis of a set of assumptions derived from various inputs including the number and type of aircraft, squadron training syllabus, other airspace users, designated flight tracks, and air traffic control procedures and schedules. See Chapter 2.0 for a discussion of flight operations.

The number of annual operations at NAS Oceana is projected to decrease by 37 percent by the year 2015. This is attributable to two factors: (1) the reduction of aircraft at NAS Oceana and (2) the construction of an OLF to provide operations flexibility and mitigation of noise impacts through the increased availability of FCLP training periods particularly important during surge operations. The projected operations were estimated using NASMOD. The decrease in operations at NAS Oceana is proportional to the projected aircraft loading.

4.5 Summary of Existing Assets and Future Needs

4.5.1 Airfield Pavements

A Pavement Condition Survey on the airfield pavements at NAS Oceana was conducted by the Pavement Evaluation Team from Atlantic Division, Naval Facilities Engineering Command, in June 2002. These surveys are performed every four to five years and incorporate the use of nondestructive testing and visual inspection. The purpose of the report is to provide to the Station and the Major Claimant maintenance and repair recommendations based upon both the visual condition survey and a structural analysis of the pavements surveyed.

The majority of the airfield pavement at NAS Oceana is rated as being in very good to excellent condition. Major maintenance projects and well-performed routine maintenance efforts accomplished over the past six years have significantly improved the condition of the pavements. Table 4-12 shows the airfield pavements at NAS Oceana and the average Pavement Condition Index (PCI) and condition as reported in the 2002 report. Figure 4-3 shows the pavement designations.

Table 4-12 Summation of NAS Oceana Airfield Pavements

Category Code	Designation	U/M	Total Quantity	Length (LF)	Width (LF)	Avg PCI	Condition	Comments
111-10	Runway 5(R)/23(L)	SY	266,667	12,000	200	81	VG/E	
111-10	Runway 5(L)/23(R)	SY	133,333	8,000	150	85	VG/E	
111-10	Runway 14(R)/32(L)	SY	177,778	8,000	200	82	G/E	
111-10	Runway 14(L)/32(R)	SY	133,333	8,000	150	73	VG	
112-10	Runway 23(R) Hold Area	SY	18,469			87	E	
112-10	Taxiway Alpha	SY	92,700			96	E	
112-10	Taxiway Bravo	SY	57,508			98	E	
112-10	Diagonal Taxiway	SY	32,253			76	VG	
112-10	Perimeter Taxiway	SY	31,000			83	VG	
112-10	Cross Taxiway Alpha	SY	5,791			86	VG	
112-10	Cross Taxiway Bravo	SY	5,342			82	E	
112-10	Cross Taxiway Charlie	SY	3,601			80	E	
112-10	Cross Taxiway Delta	SY	4,083			98	E	
112-10	Fueling Hydrant Lane 1	SY	2,361			84	VG	
112-10	Fueling Hydrant Lane 2	SY	2,361			89	E	
112-10	Fueling Hydrant Lane 3	SY	2,361			92	E	
112-10	Fueling Hydrant Lane 4	SY	2,461			89	E	
112-10	Fueling Hydrant Lane 5	SY	2,461			87	E	
112-10	Fueling Hydrant Lane 6	SY	2,461			84	VG	
112-10	Fueling Hydrant Lane 7	SY	2,985			83	VG	
112-10	Fueling Hydrant Lane 8	SY	2,985			85	VG	
112-10	Fueling Hydrant Lane 9	SY	2,985			77	VG	
112-10	Fueling Hydrant Lane 10	SY	2,985			80	VG	
113-20	Northwest Ramp	SY	335,815	3,770	900	82	VG/G	
113-20	Northeast Ramp	SY	235,772	3,085	877	84	VG/E	

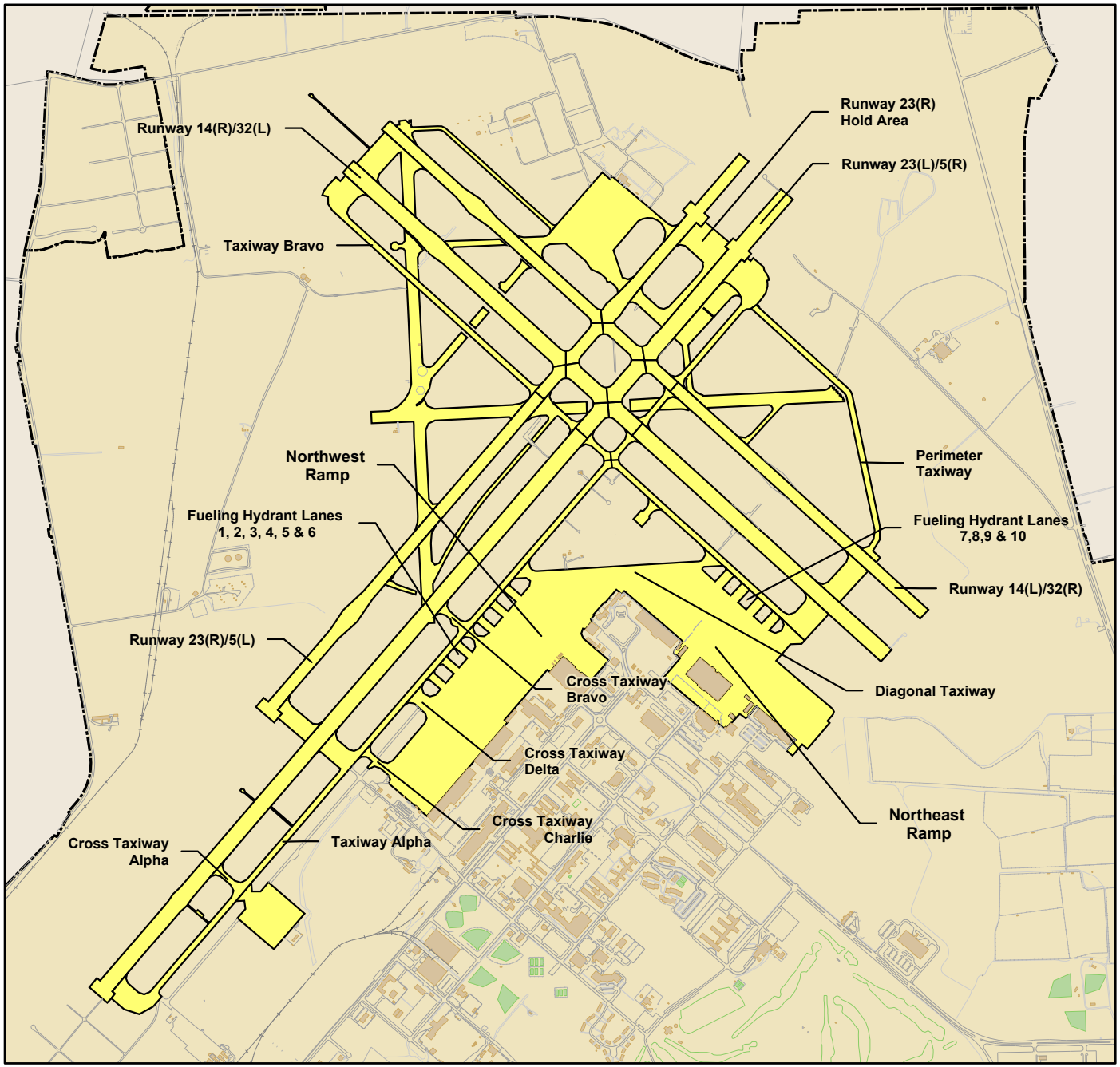


Figure 4-3

NAS Oceana
Airfield Pavements

Feet
0 500 1,000 2,000

4.5.1.1 Runways

NAS Oceana has two sets of dual Class B runways designated Runway 05/23 Left/Right (L/R) and 32/14L/R for arrival and departure of air traffic. Runways 5/23L/R are the calm-wind runways, preferred for use at times when the wind is not a constraining factor for takeoff and landing. The original airfield was constructed in the early 1940s. In the early 1950s, the present-day layout of the runways was established with the construction of two pair of 8,000 LF long parallel runways. Runway 5R/23L was extended to its present length of 12,000 LF in 1961. Each runway is 200 LF wide and equipped with arresting gear approximately 1,500 feet from the runway ends. According to 2000 annual operations data obtained from NAS Oceana, Runways 5/23L/R are the primary runways; 50 percent of the airfield operations are assigned to Runway 05, and 34 percent are assigned to Runway 23. The predominant flight tracks at Runway 05 and Runway 23 are shown in Figure 4-4. Runways 32/14L/R are the secondary runways; 14 percent of the airfield operations are assigned to Runway 32, and 2 percent are assigned to Runway 14.

4.5.1.2 Parking Aprons

There are two primary aircraft parking aprons. One apron is used primarily by F-14 squadrons, the SAR squadron, the Adversary squadron, and transient aircraft. The other apron is used primarily by the F-18 Hornet squadrons. Table 4-12 shows current aircraft parking apron assets .

Table 4-12 Existing Aircraft Parking Apron Assets

Location	Length	Width	Quantity (SY)
Northeast Apron	3,085	877	235,772
Northwest Apron	3,770	900	335,815
NAS Oceana Total			**571,587**

One governing strategy used by the Navy is to locate aircraft parking spaces as close as possible to support facilities to improve organizational integrity. This is not always possible given the required aircraft geometry and the location and availability of squadron administrative and maintenance space.

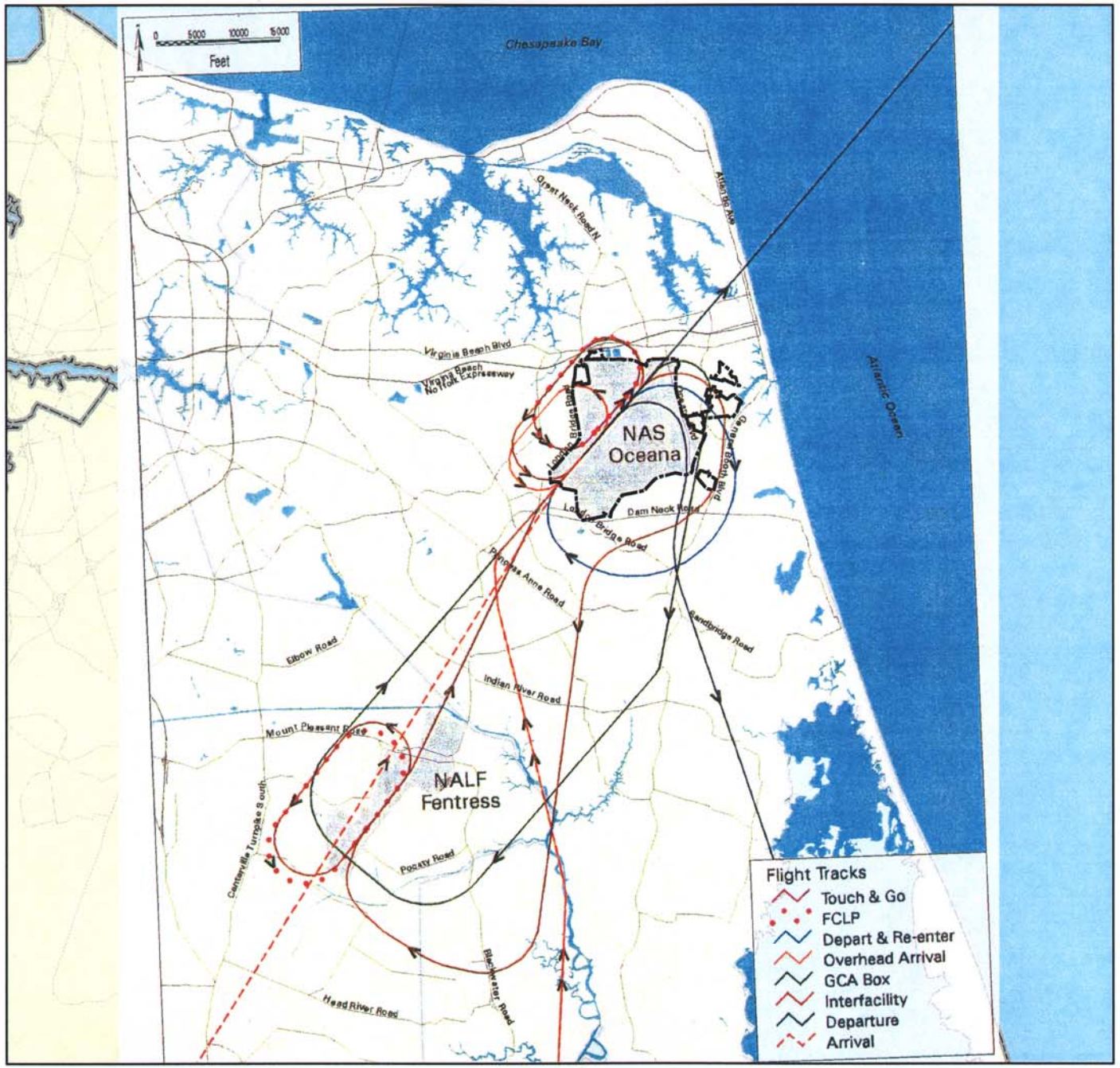


Figure 4-4

NAS Oceana
Primary Flight Tracks

The aircraft parking apron (northwest apron) currently used by the F-14 Tomcat aircraft has a total of 11 lines of fixed point utility systems (also known as Wells Start Units). Beginning in front of Hangar 500, lines one through six have three services points each. Lines seven through eleven have four service points each. Each service point provides electrical service and compressed air to two aircraft parking spaces. Figure 4-5 shows the current F-14 aircraft parking apron with the location and configuration of the Wells Start Units and aircraft.

The aircraft parking apron (northeast apron) currently used by the F-18 Hornet aircraft has a total of 18 lines of Flight Line Electrical Distribution System (FLEDS). Beginning in front of Hangar 111, line one has one service point. Line two has two service points. Lines three through thirteen have four service points each. Lines fourteen through eighteen have three service points each. Each service provides electrical service to two aircraft parking spaces.

With the retirement of the F-14 Tomcat and the introduction of the F-18 Super Hornet aircraft to NAS Oceana, the existing Wells Start Units will be removed from the northwest aircraft parking apron. The units will be replaced with Point of Use Frequency Converters (PUFCs). Each PUFC will provide electrical service to two aircraft parking spaces.

Because the northeast aircraft parking apron has recently undergone extensive renovation or replacement, it is anticipated that there will be no significant changes to the ramp. The location of F/A-18 Super Hornet FRS aircraft in proximity to Hangar 122 will require reconfiguration of some aircraft parking lines to accommodate the aircraft.

Tables 4-13 and 4-14 identify the current and future aircraft parking requirements for NAS Oceana. Figures 4-5 and 4-6 shows current aircraft parking plans for the northwest and northeast aprons respectively. It should be noted that, in all cases, the parking plans take into account the existing and/or proposed locations of the PUFCs and FLEDS.

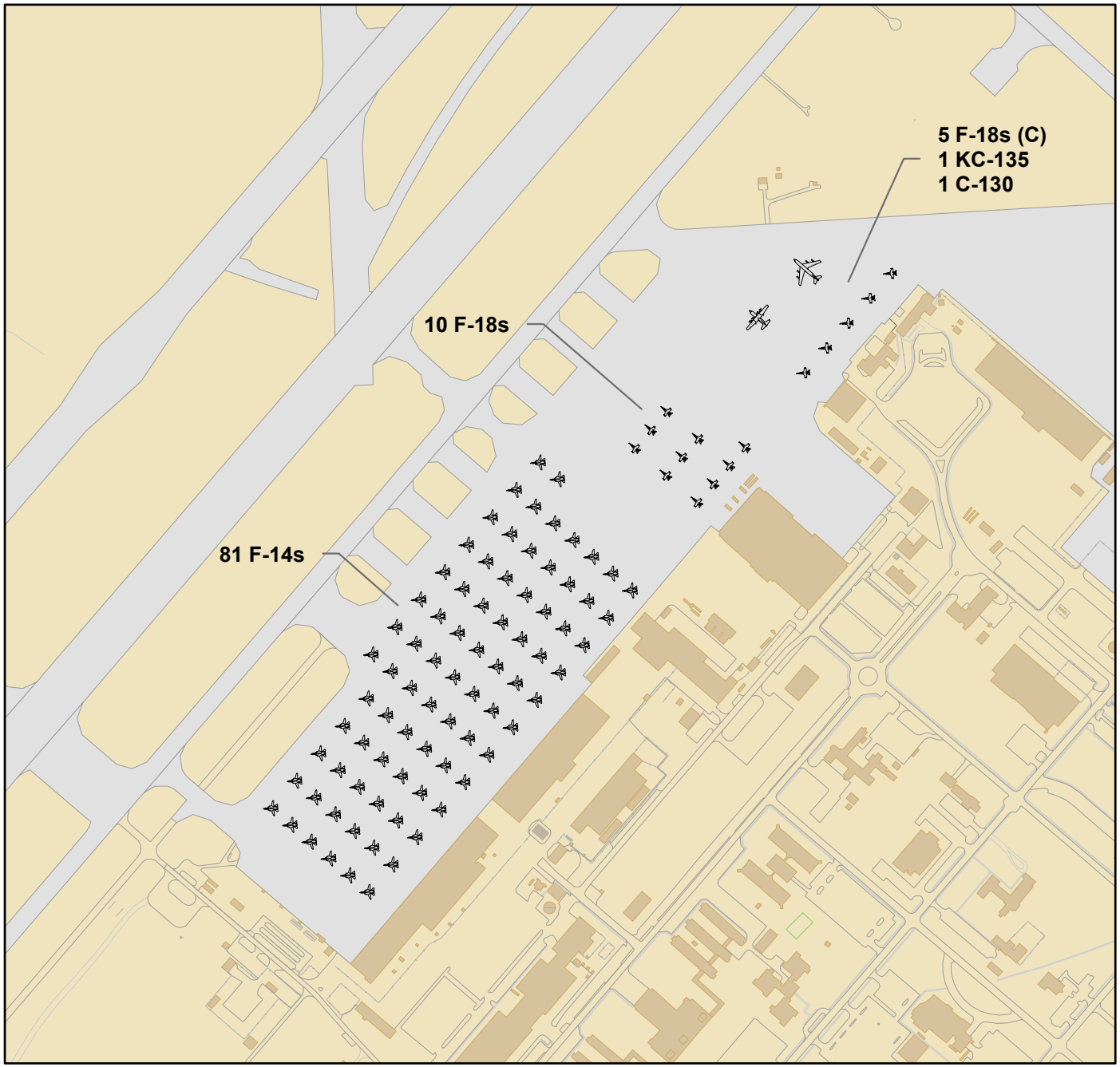


Figure 4-5

Existing Aircraft Parking
Northwest Ramp

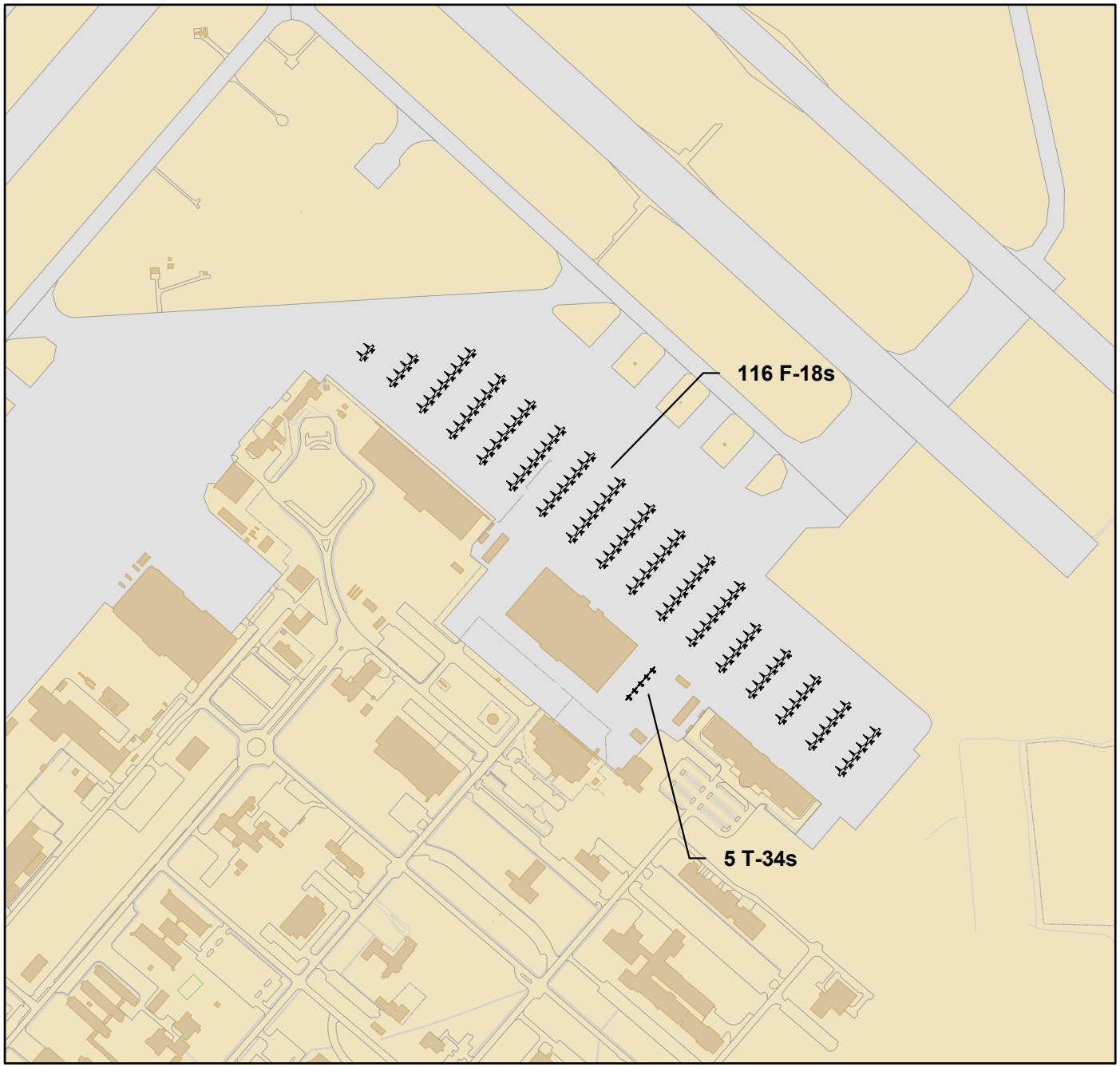


Figure 4-6

Existing Aircraft Parking Northeast Ramp

Feet
0 225 450 900

Table 4-13 NAS Oceana Existing and Projected Permanent Party Aircraft Parking Requirement

Squadron/Unit	Aircraft Type	Number of Aircraft Parked on Apron		Parking Apron Requirement (Square Yards)	
		(2003)	(2015)	(2003)	(2015)
VF-101	F-14A	4	0	12,446	0
	F-14B	8	0	24,892	0
	F-14D	7	0	21,781	0
VF(A)-11	F-14B	9	0	28,004	0
	F/A-18E	0	10	0	41,160
VF-31	F-14D	9	0	28,004	0
VF(A)-32	F-14B	9	0	28,004	0
	F/A-18F	0	10	0	41,160
VF(A)-103	F-14B	8	0	24,892	0
	F/A-18F	0	10	0	41,160
VF(A)-143	F-14B	9	0	28,004	0
	F/A-18F	0	10	0	41,160
VF(A)-211	F-14A	9	0	28,004	0
	F/A-18F	0	10	0	41,160
VF(A)-213	F-14D	9	0	28,004	0
	F/A-18F	0	10	0	41,160
COMSTRKFITWINGLANT	T-34	5	5	4,988	4,988
VFA-106	F/A-18B	3	3	10,080	10,080
	F/A-18C	10	8	33,600	26,880
	F/A-18D	13	7	43,680	23,520
	F/A-18E	0	6	0	24,696
	F/A-18F	0	14	0	57,624
VFA-15	F/A-18C	10	0	33,600	0
	F/A-18E	0	10	0	41,160
VFA-34	F/A-18C	10	8	33,600	26,880
VFA-37	F/A-18C	10	8	33,600	26,880
VFA-81	F/A-18C	10	0	33,600	0
VFA-83	F/A-18C	10	8	33,600	26,880
VFA-87	F/A-18C	10	8	33,600	26,880
VFA-105	F/A-18C	10	0	33,600	0
	F/A-18E	0	10	0	41,160
VFA-131	F/A-18C	10	8	33,600	26,880
VFA-136	F/A-18C	10	8	33,600	26,880
VFC-12	F/A-18A	8	8	26,880	26,880
	F/A-18B	2	2	6,720	6,720
Air Operations SAR	H-3	2	0	7,126	0
	MH-60S	0	2	0	5,450
Permanent Party Totals		**214**	**183**	**687,509**	**677,398**

Table 4-14, NAS Oceana Existing and Projected Transient Aircraft Parking Requirement

Designation	Aircraft Type	Number of Aircraft Parked on Apron		Parking Apron Requirement (SY)	
		(2003)	(2015)	(2003)	(2015)
Transient	F/A-18(C)	5	4	16,800	13,440
Transient	F/A-18(E)	0	3	0	12,348
Transient	KC-135	1	1	16,450	16,450
Transient	C-130	1	1	8,645	8,645
Transient Totals		**7**	**9**	**41,895**	**50,883**

4.5.1.3 Taxiways

NAS Oceana has a robust taxiway system that allows movement of aircraft between the four operational runways and the northeast and northwest aircraft parking aprons.

4.5.1.4 Other Airfield Pavements

Other airfield pavements at NAS Oceana include aircraft access aprons, compass calibration pad, aircraft washrack pavement, aircraft arming and dearming pads, aircraft towway, and combat aircraft ordnance loading area (CALA). Table 4-15 shows the other airfield pavements and current condition. (See Figure 4-10).

For purposes of this Plan, the aircraft access aprons are included in the aircraft parking apron square yardage totals. (See Table 4-12) Where practical, an aircraft access apron extending 50 feet out in front of an existing aircraft maintenance hangar bay and running the width of the hangar bay door should be provided.

There is one compass calibration pad, 3041 at NAS Oceana. The compass calibration pad is located south of taxiway Bravo at mid-field. It is anticipated that the existing compass calibration pad will be sufficient to handle future needs. Other than routine maintenance and repair, there are no anticipated changes required to the existing compass calibration pad.

There are nine aircraft washrack pavements: WR500A, WR500B, WR500C, WR500D, WR145A, WR145B, WR145C, WR145D, and WR145E at NAS Oceana. WR500A-D are located on the northwest aircraft parking apron in proximity to Hangar 500. WR145A-E are located on the northeast aircraft parking apron in proximity to Hangar 145. All aircraft washrack pavements are considered sufficient to accommodate future needs. Other than routine maintenance and repair, there are no anticipated changes required to the existing aircraft washrack pavements.

There are five aircraft arming and dearming pads: Runway 5(R) Arm/Dearm Pad, Arm/Dearm Pad (Free Fall), Runway 23(L/R) Arm/Dearm Pad, Runway 14(L/R) Arm/Dearm Pad, and Runway 32(L/R) Arm/Dearm Pad, at NAS Oceana. Other than routine maintenance and repair, there are no anticipated changes required to the existing aircraft arming and dearming pads.

There is an existing towway between cross taxiway Delta and the power check pad area. Other than routine maintenance, it is anticipated that no major changes will be made to the towway.

The existing CALA is the location where ordnance is loaded onto or unloaded from aircraft. Other than routine maintenance and repair, there are no anticipated changes required to the existing CALA.

Table 4-15 Existing Other Airfield Pavements at Chambers Field

Category Code	Facility Number	Designation	U/M	Total Quantity	Length (LF)	Width (LF)	Status
116-10	WR500A	Aircraft Washrack Pavement	SY	833			I
116-10	WR500B	Aircraft Washrack Pavement	SY	833			I
116-10	WR500C	Aircraft Washrack Pavement	SY	833			I
116-10	WR500D	Aircraft Washrack Pavement	SY	833			I
116-10	WR145A	Aircraft Washrack Pavement	SY	803			A
116-10	WR145B	Aircraft Washrack Pavement	SY	803			A
116-10	WR145C	Aircraft Washrack Pavement	SY	803			A
116-10	WR145D	Aircraft Washrack Pavement	SY	803			A
116-10	WR145E	Aircraft Washrack Pavement	SY	803			A
116-20	3041	Compass Calibration Pad	SY	2,250			S
116-35	N/A	Runway 5(R) Arm/Dearm Pad Runway 5(R) Hold Area	SY	11,722			A
116-35	N/A	Arm/Dearm Pad (Free Fall) Runway 5(L) Hold Area	SY	1,483			A
116-35	N/A	Runway 23(L/R) Arm/Dearm Pad Runway 23(L) Hold Area	SY	14,911			A
116-35	N/A	Runway 14(L/R) Arm/Dearm Pad Runway 14(L/R) Hold Area	SY	37,000			A
116-35	N/A	Runway 32(L/R) Arm/Dearm Pad Runway 32(L/R) Hold Area	SY	7,283			A
116-50	N/A	Towway	SY	12,047			A
116-56	N/A	CALA	SY	38,000			A

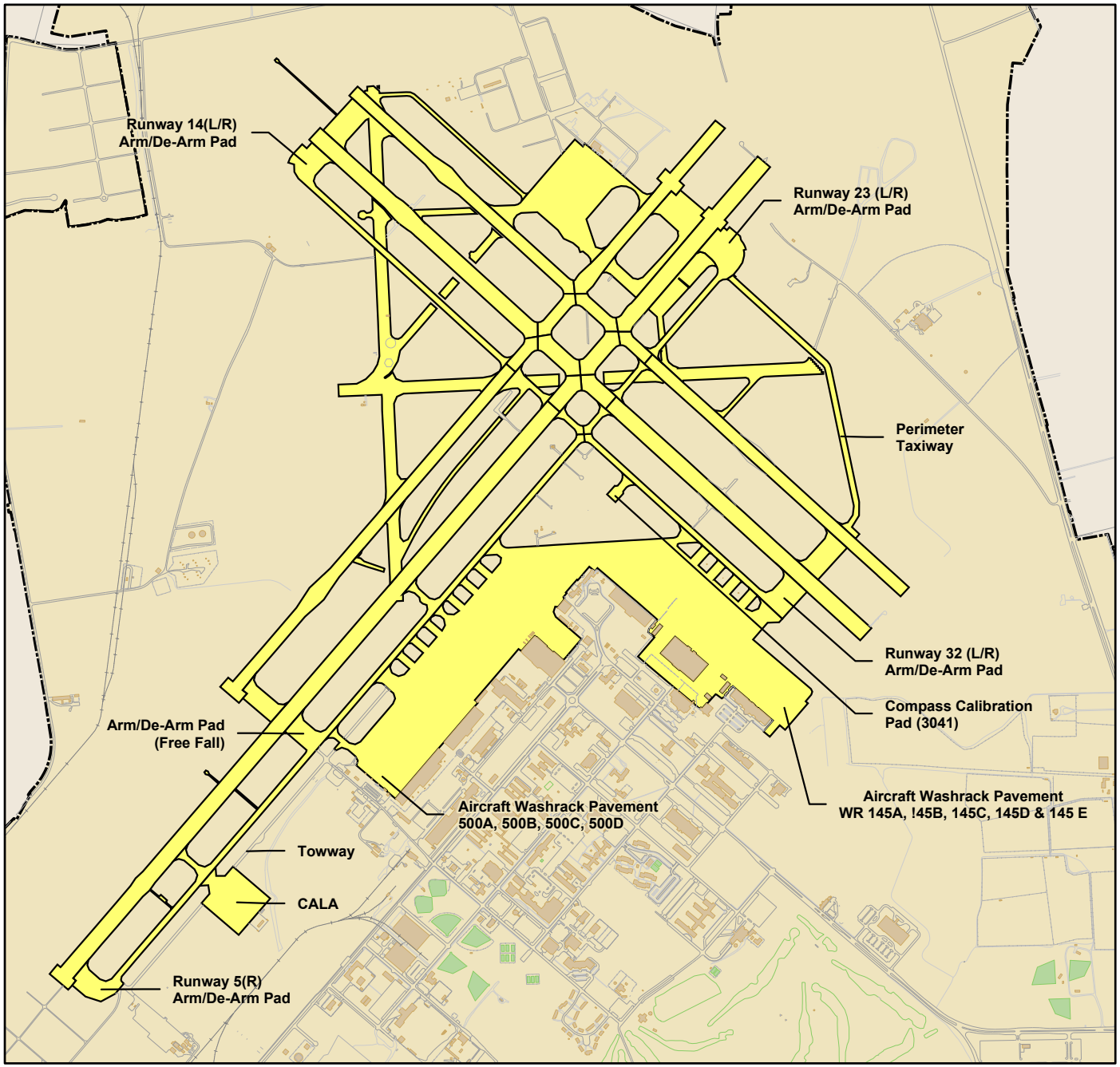


Figure 4-7

NAS Oceana
Other Airfield Pavements

4.5.2 Aircraft Maintenance Facilities

Naval aircraft maintenance is divided into three levels:

- Organizational
- Intermediate
- Depot

4.5.2.1 Organizational-Level Maintenance

Organizational-level maintenance is the most basic maintenance, consisting of day-to-day upkeep and repair tasks performed by the technicians assigned to the squadrons, and includes routine inspections and servicing, as well as removal and replacement of various aircraft components. This type of maintenance is done in an aircraft maintenance hangar. All Navy permanent party aircraft assigned to NAS Oceana require maintenance hangars to provide weather-protected shelter for the servicing and repair of aircraft at the organizational/squadron level.

NAS Oceana has six Type I aircraft maintenance hangars with a capacity of 24.0 O/H (Category Code 211-05) modules and 20.25 OS (a combination of Category Codes 211-06 and 211-07). These hangars are facilities 111, 122, 145, 200, 404, and 500. A seventh hangar, Facility 23, is used to house and maintain the two (2) H-3 Search and Rescue (SAR) helicopters. In addition, the eastern-most hangar bay of the Strike Fighter Weapons School, Atlantic, Facility 137, is used by a contractor to maintain the six T-34 training aircraft assigned to COMSTRKFITWINGLANT. Table 4-16 shows the current aircraft maintenance hangar capacities. In addition to the aircraft maintenance hangars, there are line operations/line maintenance buildings adjacent to Hangars 500, 404, 200, 111, and 122. These buildings are used by squadrons line maintenance personnel located in these hangars to centralize ground operations of the flight line. Table 4-17 shows the line operations/line maintenance buildings and their associated hangar. Table 4-18 shows permanent party aircraft hangar requirements. Table 4-19 shows the current and proposed hangar utilization plan for NAS Oceana. Figures 4-8 through 4-13 depict Future Hangar Utilization. These tables and figures indicate how organizational-level maintenance can be accommodated under projected future loading.

Table 4-16 NAS Oceana Existing Hangars

Facility Number	Type	O/H Capacity	OS Capacity	O/H (211-05) (SF)	01 (211-06) (SF)	02 (211-07) (SF)
111	I	3.50	3.00	61,957	27,262	27,262
122	I	5.50	5.00	108,760	32,449	55,061
145	I	2.00	2.00	41,143	22,049	14,403
200	I	4.50	4.50	83,223	48,423	35,778
404	I	3.50	2.25	70,399	22,330	19,490
500	I	5.00	3.50	77,263	42,750	20,998
23	I	0.50	0.25	11,934	2,658	0
137 (East Bay)	I	0.25	0.25	5,625	550	432
NAS Oceana Totals	**I**	**24.75**	**20.75**	**460,304**	**198,471**	**173,424**

Table 4-17 NAS Oceana Line Operations/Line Maintenance Buildings

Line Operations/ Line Maintenance Building Number	Associated Hangar	Line Operations Building (141-30) (SF)	Line Maint. Shelter (211-15) (SF)
131	122	1,960	1,960
125	111	2,660	1,960
505	500	1,708	-
400	404	2,506	2,506
109	200	1,960	1,960
NAS Oceana Totals		**10,794**	**8,386**

Table 4-18 Current and Projected NAS Oceana Hangar Requirements

Permanent Party		2003 Hangar Requirements						2015 Hangar Requirements					
Squadron	Type of Aircraft	Type	Modules		O/H (211-05)	01 (211-06)	02 (211-07)	Type	Modules		O/H (211-05)	01 (211-06)	02 (211-07)
			O/H	OS					O/H	OS			
VF-101	F-14A F-14B F-14D	I	2.0	2.5	39,936	28,084	20,328	-	-	-	-	-	-
VF(A)-11	F-14B F/A-18E	I -	1.0 -	1.0 -	19,968 -	10,526 -	8,720 -	- I	- 1.0	- 1.0	- 19,968	- 10,526	- 8,720
VF-31	F-14D	I	1.0	1.0	19,968	10,526	8,720	-	-	-	-	-	-
VF(A)-32	F-14B F/A-18F	I -	1.0 -	1.0 -	19,968 -	10,526 -	8,720 -	- I	- 1.0	- 1.0	- 19,968	- 10,526	- 8,720
VF(A)-103	F-14B F/A-18F	I -	1.0 -	1.0 -	19,968 -	10,526 -	8,720 -	- I	- 1.0	- 1.0	- 19,968	- 10,526	- 8,720
VF(A)-143	F-14B F/A-18F	I -	1.0 -	1.0 -	19,968 -	10,526 -	8,720 -	- I	- 1.0	- 1.0	- 19,968	- 10,526	- 8,720
VF(A)-211	F-14A F/A-18F	I -	1.0 -	1.0 -	19,968 -	10,526 -	8,720 -	- I	- 1.0	- 1.0	- 19,968	- 10,526	- 8,720
VF(A)-213	F-14D F/A-18F	I -	1.0 -	1.0 -	19,968 -	10,526 -	8,720 -	- I	- 1.0	- 1.0	- 19,968	- 10,526	- 8,720
CSFWL	T-34	I	0.5	0.25	9,984	2,632	2,180	I	0.5	0.25	9,984	2,632	2,180
VFA-106	F/A-18B F/A-18C F/A-18D F/A-18E F/A-18F	I	2.0	2.0	39,936	23,239	14,608	I	3.0	3.5	59,904	40,929	27,673
VFA-15	F/A-18C F/A-18E	I -	1.0 -	1.0 -	19,968 -	10,526 -	8,720 -	- I	- 1.0	- 1.0	- 19,968	- 10,526	- 8,720
VFA-34	F/A-18C	I	1.0	1.0	19,968	10,526	8,720	I	1.0	1.0	19,968	10,526	8,720
VFA-37	F/A-18C	I	1.0	1.0	19,968	10,526	8,720	I	1.0	1.0	19,968	10,526	8,720
VFA-81	F/A-18C	I	1.0	1.0	19,968	10,526	8,720	-	-	-	-	-	-
VFA-83	F/A-18C	I	1.0	1.0	19,968	10,526	8,720	I	1.0	1.0	19,968	10,526	8,720
VFA-87	F/A-18C	I	1.0	1.0	19,968	10,526	8,720	I	1.0	1.0	19,968	10,526	8,720
VFA-105	F/A-18C F/A-18E	I -	1.0 -	1.0 -	19,968 -	10,526 -	8,720 -	- !	- 1.0	- 1.0	- 19,968	- 10,526	- 8,720
VFA-131	F/A-18C	I	1.0	1.0	19,968	10,526	8,720	I	1.0	1.0	19,968	10,526	8,720
VFA-136	F/A-18C	I	1.0	1.0	19,968	10,526	8,720	I	1.0	1.0	19,968	10,526	8,720
VFC-12	F/A-18A F/A-18B	I	1.0	1.0	19,968	10,526	8,720	I	1.0	1.0	19,968	10,526	8,720
Station	H-3 MH-60S	I -	0.5 -	0.25 -	9,984 -	2,632 -	2,180 -	- I	- 0.5	- 0.25	- 9,984	- 2,632	- 2,180
NADEP JAX	F/A-18A/B F/A-18C/D F/A-18E/F	I	1.0	1.0	19,968	20,478	-	I	3.0	1.0	59,904	20,478	-
NAS Oceana Subtotals		**I**	**23.0**	**23.0**	**459,264**	**256,007**	**187,536**	**I**	**22.0**	**20.0**	**439,296**	**224,561**	**162,833**
Less (-) deployed squadron(s)			**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**
NAS Oceana Totals		**I**	**23.0**	**23.0**	**459,264**	**256,007**	**187,536**	**I**	**22.0**	**20.0**	**439,296**	**224,561**	**162,833**

Table 4-19 Permanent Party Current and Projected Hangar Utilization Plan for NAS Oceana

Facility Number	Hangar Type	Hangar Capacity (Module)		Hangar Capacity (SF)		Squadron(s)		Squadron(s) Requirement (Module)				Squadron(s) Requirement (SF)			
								O/H		OS		O/H		OS	
		O/H	OS	O/H	OS	2003	2015	2003	2015	2003	2015	2003	2015	2003	2015
23	I	0.5	0.25	11,934	2,658	Station H-3	Station MH-60S	0.5	0.5	0.25	0.25	9,984	9,984	4,812	4,812
Hangar 23 Totals		**0.5**	**0.25**	**11,934**	**2,658**			**0.5**	**0.5**	**0.25**	**0.25**	**9,984**	**9,984**	**4,812**	**4,812**
111	I	3.5	3.0	61,957	54,524	VFA-34	VFA-83	1.0	1.0	1.0	1.0	19,968	19,968	19,246	19,246
						VFA-81	VFA-131	1.0	1.0	1.0	1.0	19,968	19,968	19,246	19,246
						VFA-83	VFA-136	1.0	1.0	1.0	1.0	19,968	19,968	19,246	19,246
						VFA-131		1.0		1.0		19,968		19,246	
						VFA-136		1.0		1.0		19,968		19,246	
Hangar 111 Totals		**3.5**	**3.0**	**61,957**	**54,524**			**5.0**	**3.0**	**5.0**	**3.0**	**99,840**	**59,904**	**96,230**	**57,738**
122	I	5.5	5.0	108,760	87,510	VFA-106	VFA-106	2.0	3.0	2.0	3.5	39,936	59,904	37,847	68,602
						VFA-15	VFA-87	1.0	1.0	1.0	1.0	19,968	19,968	19,246	19,246
						VFA-87	NADEP IMC F/A-18 "Hornet"	1.0	1.0	1.0	0	19,968	19,968	19,246	0
						NADEP IMC F/A-18 "Hornet"		1.0		1.0		19,968		20,478	
						STRKFITWING	STRKFITWING	0	0	0.75	1.25	0	0	14,850	23,700
Hangar 122 Totals		**5.5**	**5.0**	**108,760**	**87,510**			**5.0**	**5.0**	**5.75**	**5.75**	**99,840**	**99,840**	**111,667**	**111,548**
145	I	2.0	2.0	41,143	36,452	VFA-37	VFA-37	1.0	1.0	1.0	1.0	19,968	19,968	19,246	19,246
						VFA-105	VFA-34	1.0	1.0	1.0	1.0	19,968	19,968	19,246	19,246
Hangar 145 Totals		**2.0**	**2.0**	**41,143**	**36,452**			**2.0**	**2.0**	**2.0**	**2.0**	**39,936**	**39,936**	**38,492**	**38,492**
137	I	0.25	0.25	5,625	982	CSFWL T-34	CSFWL T-34	0.5	0.5	0.25	0.25	9,984	9,984	4,812	4,812
Building 137 Totals		**0.25**	**0.25**	**5,625**	**982**			**0.5**	**0.5**	**0.25**	**0.25**	**9,984**	**9,984**	**4,812**	**4,812**
200	I	4.5	4.5	83,223	84,201	VFC-12	VFC-12	1.0	1.0	1.0	1.0	19,968	19,968	19,246	19,246
						VF-211	NADEP IMC F/A-18 "Super Hornet"	1.0	2.0	1.0	1.0	19,968	39,936	19,246	20,483
							VFA-15		1.0		1.0		19,968		19,246
Hangar 200 Totals		**4.5**	**4.5**	**83,223**	**84,201**			**2.0**	**4.0**	**2.0**	**3.0**	**39,936**	**79,872**	**38,492**	**58,975**
404	I	3.5	2.25	70,399	41,820	VF-101	VF(A)-11	2.0	1.0	2.5	1.0	39,936	19,968	48,412	19,246
						VF-11	VF(A)-32	1.0	1.0	1.0	1.0	19,968	19,968	19,246	19,246
							VFA-105		1.0		1.0		19,968		19,246
Hangar 404 Totals		**3.5**	**2.25**	**70,399**	**41,820**			**3.0**	**3.0**	**3.5**	**3.0**	**59,904**	**59,904**	**67,658**	**57,738**
500	I	5.0	3.5	77,263	63,748	VF-31	VF(A)-103	1.0	1.0	1.0	1.0	19,968	19,968	19,246	19,246
						VF-32	VF(A)-143	1.0	1.0	1.0	1.0	19,968	19,968	19,246	19,246
						VF-103	VF(A)-211	1.0	1.0	1.0	1.0	19,968	19,968	19,246	19,246
						VF-143	VF(A)-213	1.0	1.0	1.0	1.0	19,968	19,968	19,246	19,246
						VF-213		1.0		1.0		19,968		19,246	
Hangar 500 Totals		**5.0**	**3.5**	**77,263**	**63,748**			**5.0**	**4.0**	**5.0**	**4.0**	**99,840**	**79,872**	**96,230**	**76,984**
NAS Oceana Totals		**24.75**	**20.75**	**460,304**	**371,895**			**23**	**22**	**23.75**	**21.25**	**459,264**	**439,296**	**458,393**	**411,094**

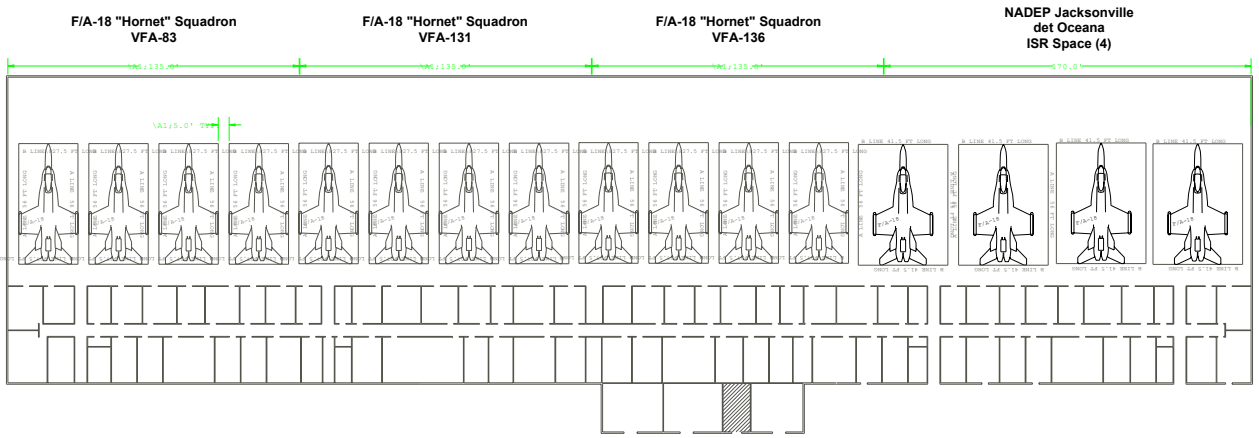
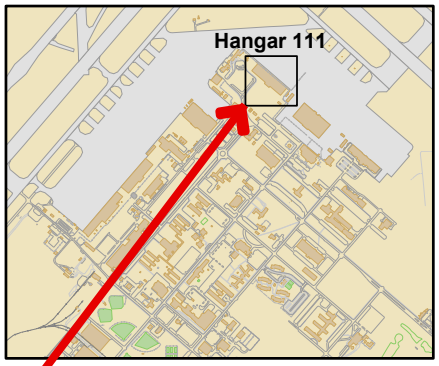


Figure 4-8
NAS Oceana Hangar 111
Proposed Utilization Plan



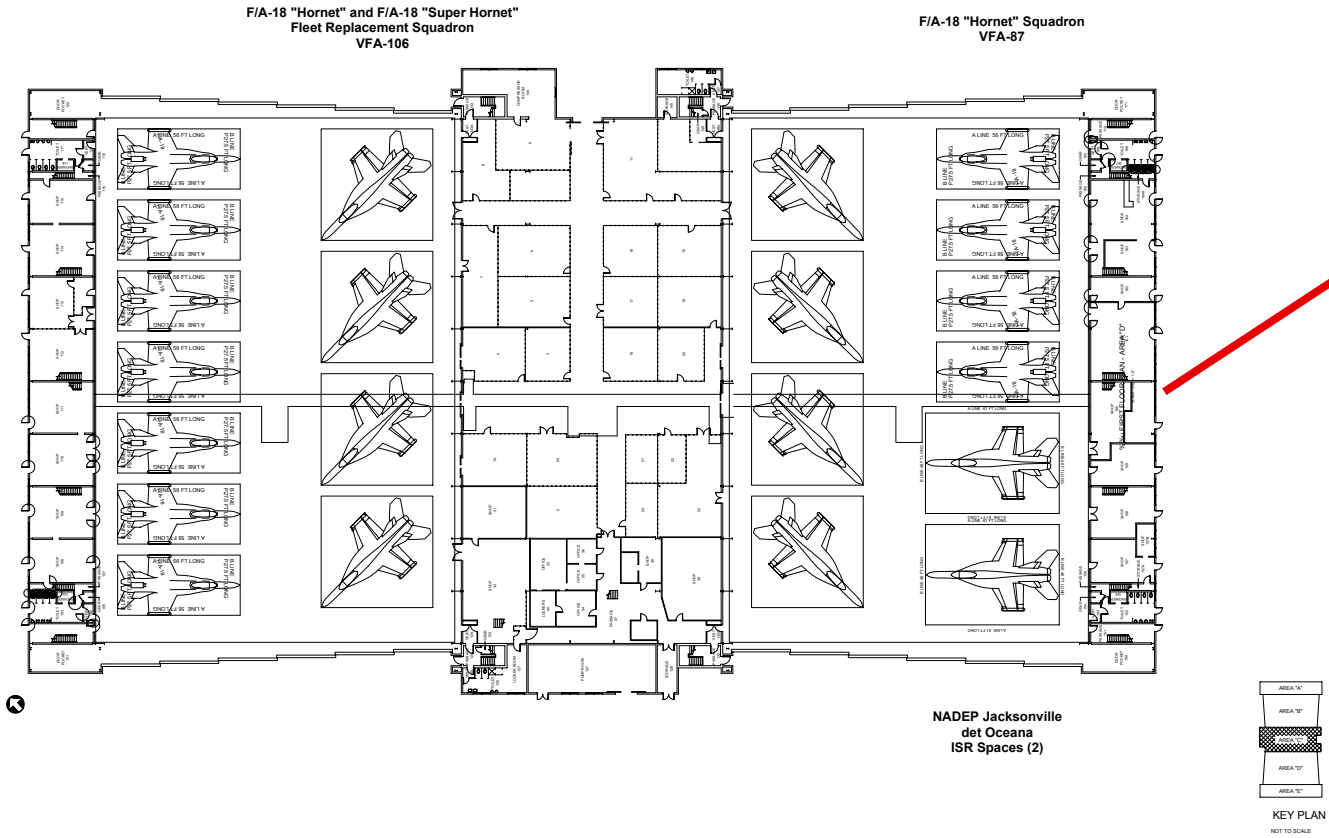
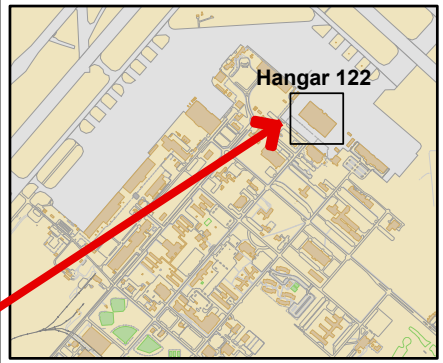
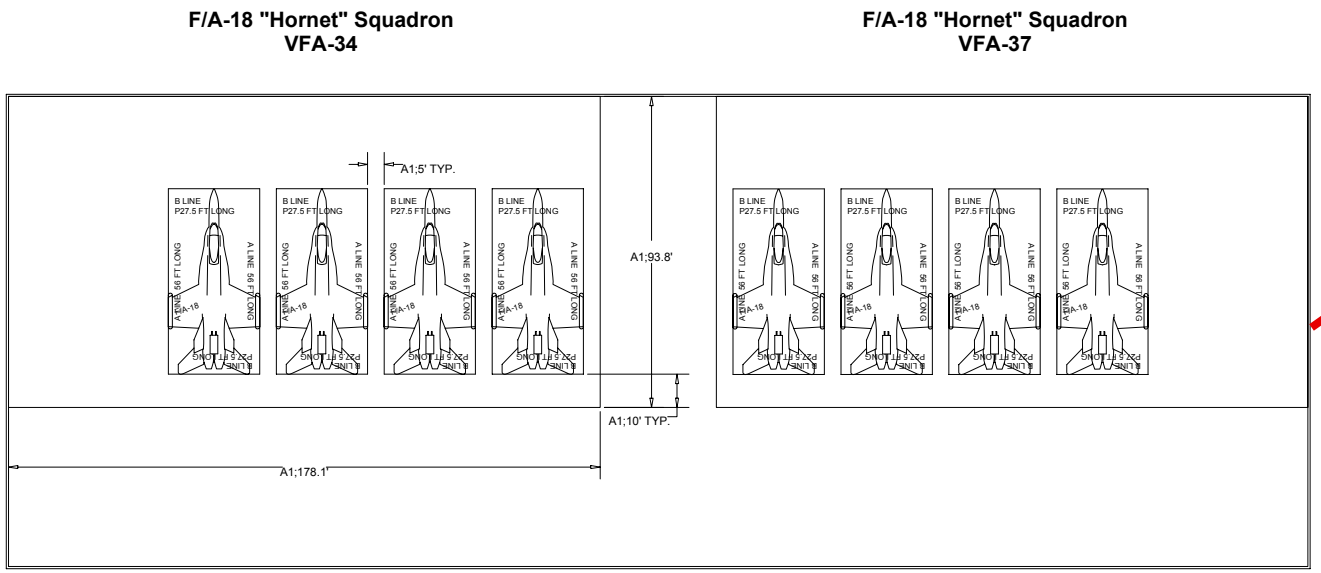


Figure 4-9
NAS Oceana Hangar 122
Proposed Utilization Plan





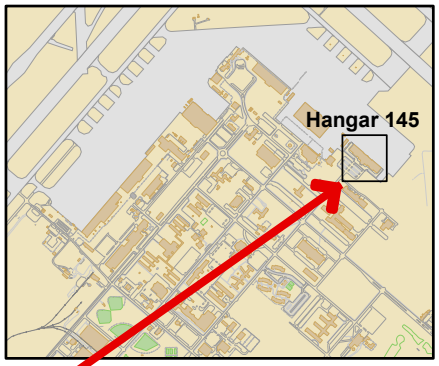


Figure 4-10
NAS Oceana Hangar 145
Proposed Utilization Plan

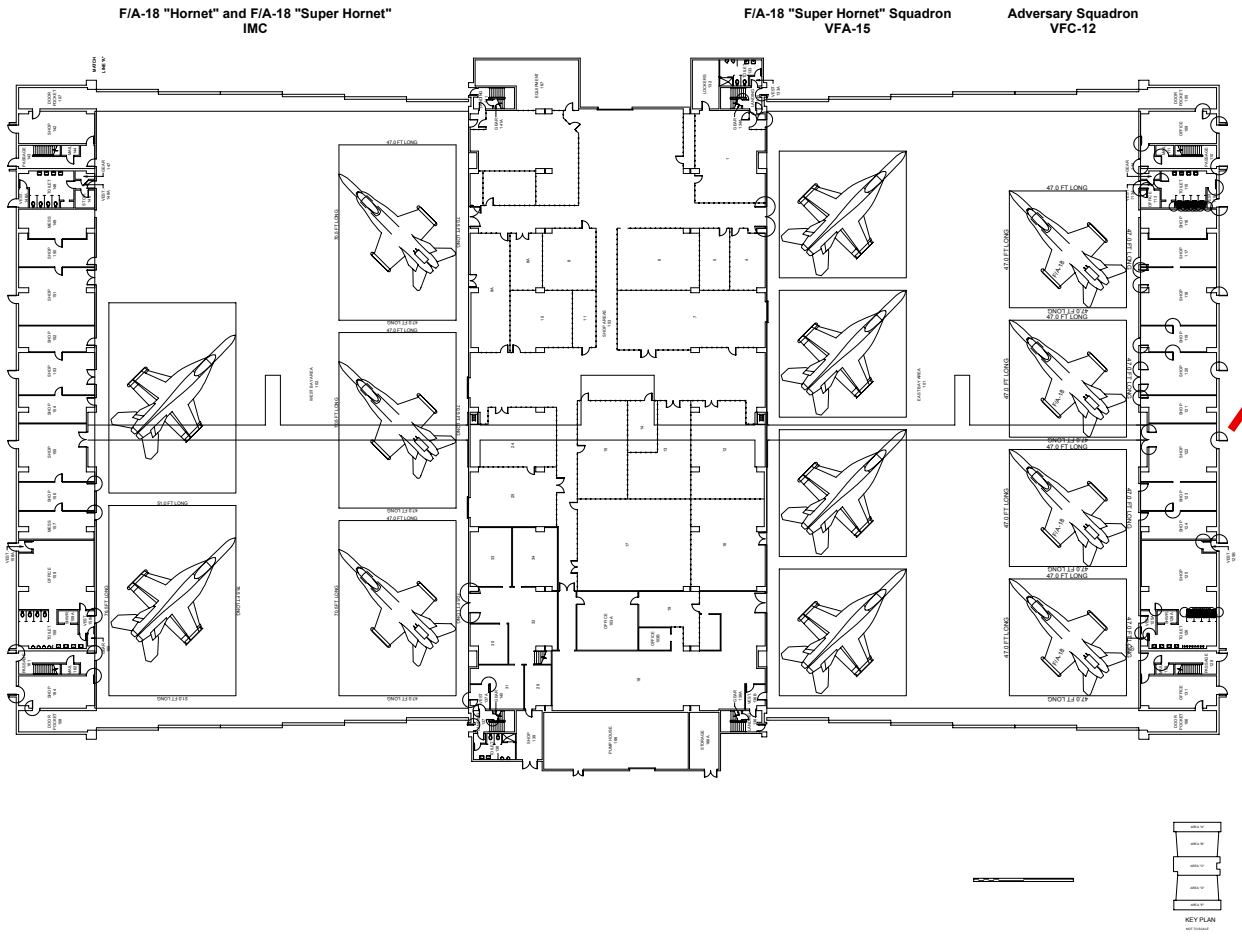
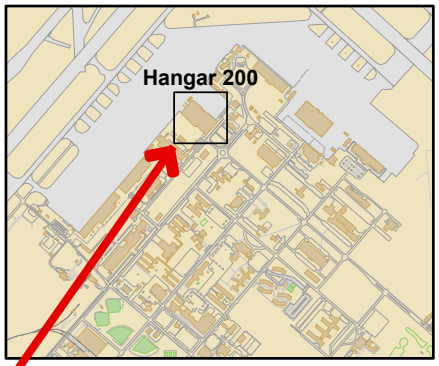
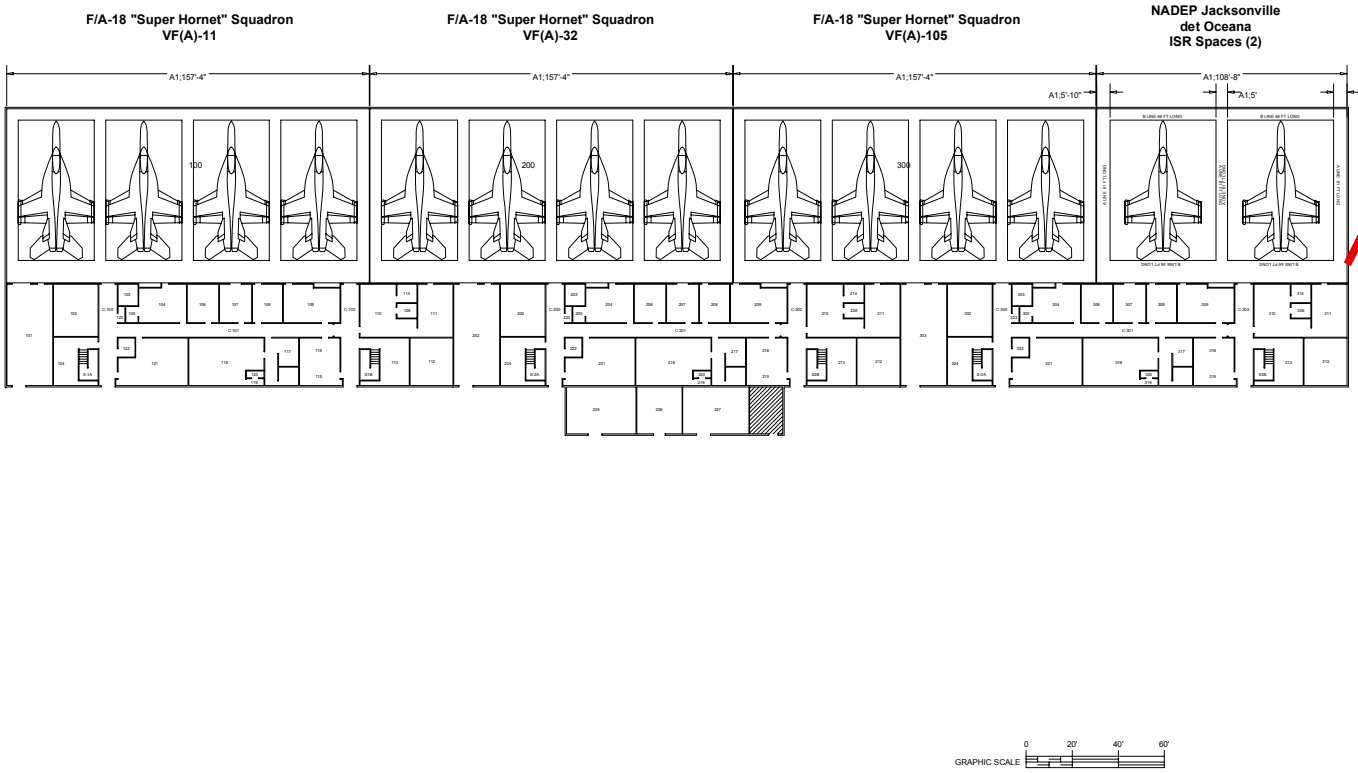


Figure 4-11

NAS Oceana Hangar 200 Proposed Utilization Plan





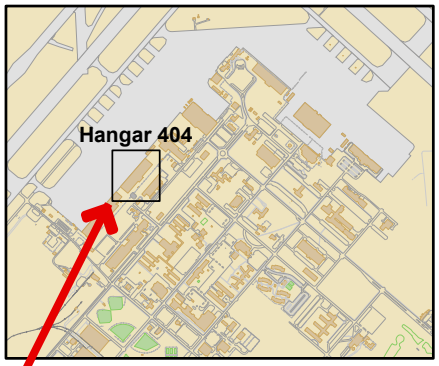


Figure 4-12
NAS Oceana Hangar 404 Proposed Utilization Plan

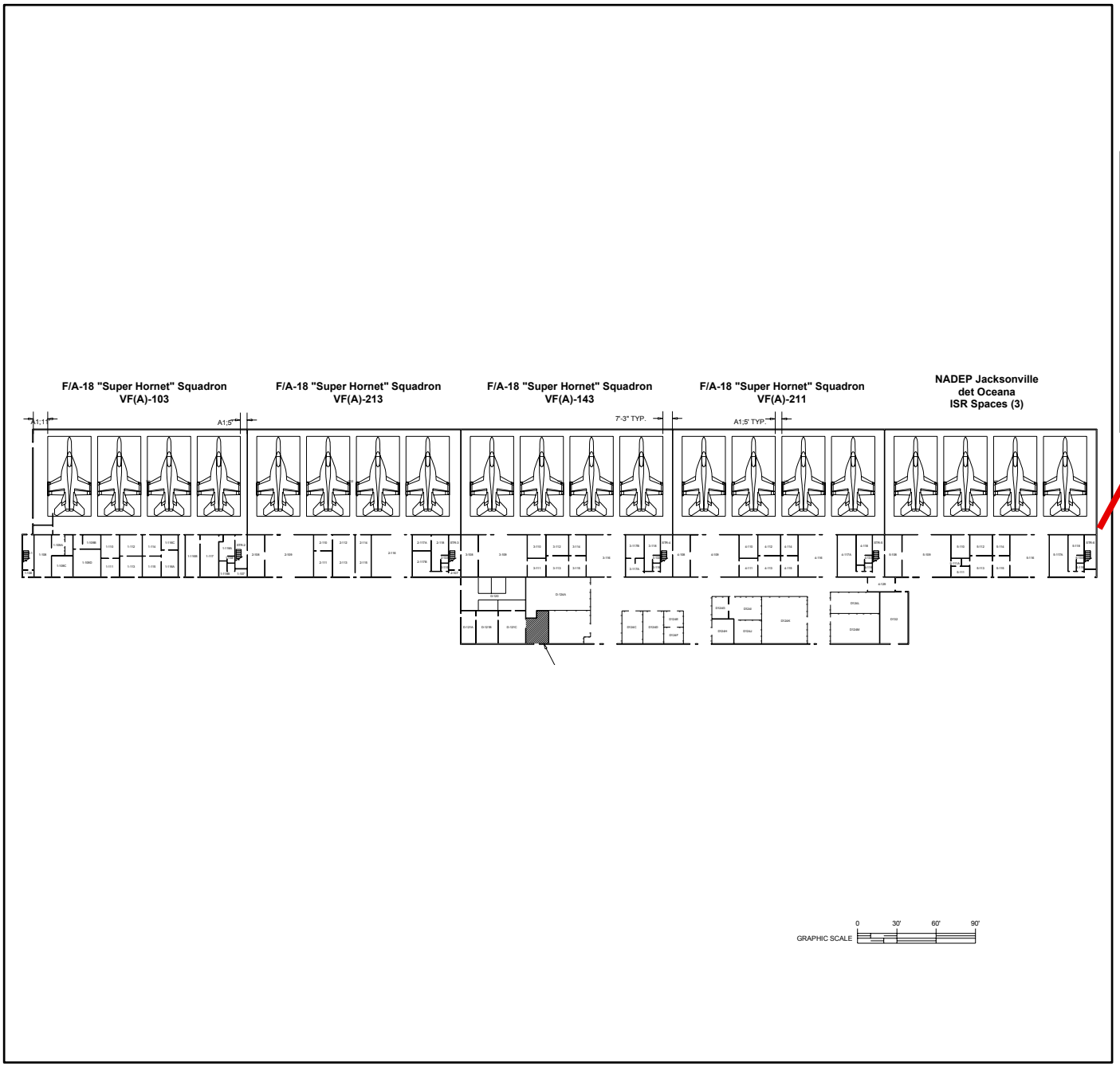
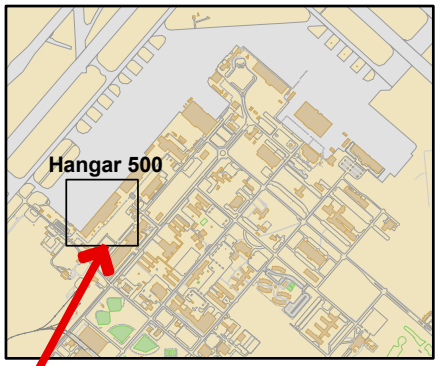


Figure 4-13
NAS Oceana Hangar 500 Proposed Utilization Plan



4.5.2.2 Intermediate-Level Maintenance

Complex aircraft component repairs are conducted at an AIMD by specialized technicians who repair the inoperative components that the organizational-level maintenance personnel have removed from aircraft.

At NAS Oceana the AIMD provides repair, manufacture, test and check of aircraft components and associated support equipment focused primarily on the high-performance jet aircraft including the F-14 Tomcat and F/A-18 Hornet. Currently AIMD Oceana is housed in a series of buildings located in the areas behind the hangars on the northwest ramp. Table 4-18 shows existing AIMD facilities and their function and condition. Figure 4-14 shows the location of AIMD facilities.

With the retirement of the F-14 Tomcat aircraft and the realized synergies between the F-18 Hornet aircraft and the F/A-18 Super Hornet aircraft, it is presumed that the existing intermediate-level maintenance facilities will support the future needs of NAS Oceana.

4.5.2.3 Depot-Level Maintenance

This is the most complex level of maintenance and includes major aircraft overhaul, modifications, upgrades, and repair of major airframe damage.

While NAS Oceana does not have a Naval Aviation Depot (NADEP), hangar space is required to facilitate depot artisan field teams to perform on-site integrated maintenance concept (IMC) repair, aircraft modifications (MOD), and squadron-requested planner and estimator repair to damaged aircraft (also known as in-service repair (ISR)). Currently, IMC and ISR are performed at NAS Oceana by a permanent detachment of personnel from NADEP JAX in Florida. The IMC and ISR program includes the F-14 and F/A-18 Hornet aircraft. Although, it has not been specifically identified, it is assumed that at some point in the future the program will expand to include the F/A-18 Super Hornet. The MOD is performed on the F/A-18 Hornet aircraft at Boeing off-site facilities in Florida. It is assumed that the MOD program for the F/A-18 Super Hornet will be run in a similar fashion.

The IMC and ISR spaces for the F/A-18 Hornet are currently located in Hangar 122. Additional space requirements, which occur from time to time, are accommodated in deployed squadron spaces. The IMC and ISR for the F-14 aircraft are currently located in Hangar 200. With the retirement of the F-14 aircraft, the IMC and ISR program requirement for the F-14 will be eliminated.

In the future, it is assumed that the IMC and ISR programs will be required for both the F-18 Hornet and F/A-18 Super Hornet. The preferred method of satisfying the requirement is consolidation in one hangar location. This may not be practical because operational squadron commitments for hangar space is the top priority for the proposed NAS Oceana hangar utilization plan. Long-term planning proposals include the construction of a new IMC/ISR hangar to facilitate the future needs of the NADEP JAX detachment.

Table 4-20 AIMD Facilities

Facility Number	Description	Category Code	Area (SF)	Condition
139	Corrosion Control Facility	211-03	13,310	Adequate
103	Life Support Systems Shop	211-75	6,680	Adequate
110	Ground Support Holding Shed	218-61		
202	Airframes Shop	211-08		
301	Power Plants Shop	211-21	63,675	Adequate
302	Power Plants (Contractor Office)	211-21		
306	Power Plants (Tank Shop)	211-21	4,000	Adequate
401	Ground Support Equipment Shop Battery Shop Ground Support Equipment Shed	218-60 218-50 218-61	25,147 1,699 13,184	Adequate
410	Armament Shop (Gun Shop)	211-54	5,283	Adequate
513	Armament Shop Airframes Shop Avionics Shop Aviation Supply AIMD Administrative Office	211-54 211-08 211-45 211-96 610-10	21,330 25,674 66,719 33,623 3,956	Adequate
1115	Aircraft Acoustical Enclosure	211-01	11,795	Adequate
722	Aviation Supply	211-96	20,665	Adequate
1102	Engine Test Cell (T-6)	211-81	5,450	Adequate
1104	Engine Test Cell (T-10)	211-81	6,714	Adequate
1105	Engine Test Support Facility	211-81	3,120	Adequate
1106	Power Check Pad w/o Sound Suppression	211-89	312	Adequate
1100	Engine Test Cell (T-6)	211-81	2,836	Adequate
1107	Power Check Pad w/o Sound Suppression	211-89	312	Adequate
1108	Power Check Pad w/o Sound Suppression	211-89	312	Adequate
1109	Power Check Pad w/o Sound Suppression	211-89	312	Adequate
509	Power Check Pad w/o Sound Suppression	211-89	312	Adequate
510	Power Check Pad w/o Sound Suppression	211-89	312	Adequate
511	Power Check Pad w/o Sound Suppression	211-89	312	Adequate

w/o without

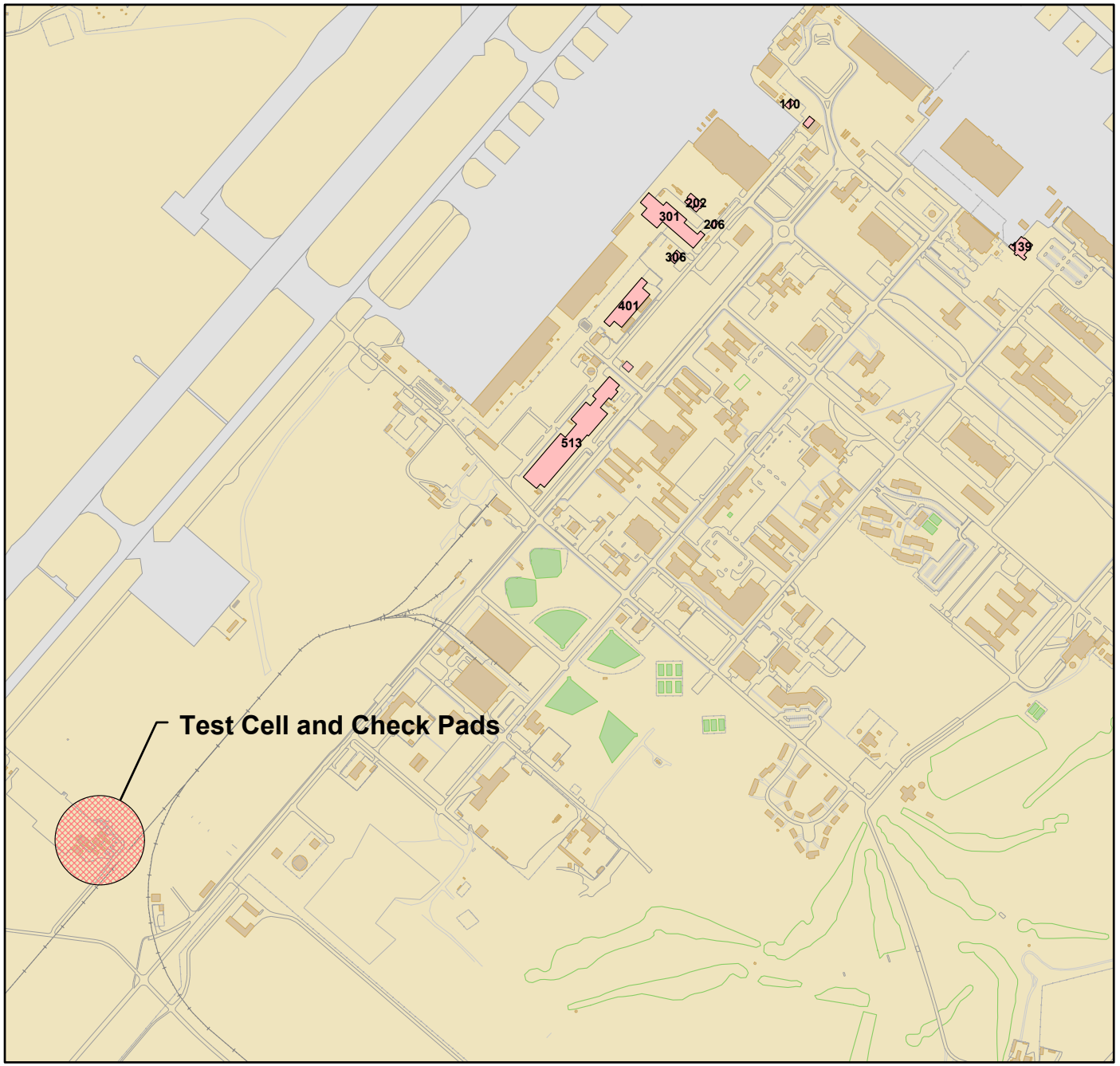


Figure 4-14

NAS Oceana
AIMD Facilities

AIMD Facilities

Feet
0 350 700 1,400

4.5.3 Other Ancillary Airfield Assets

4.5.3.1 Aircraft Fueling and Dispensing Facilities

Jet fuel is barged to the North Landing River fuel offloading facility and pumped via pipeline to the fuel farm located on the west side of the Station. Fuel is pumped under the main runways 05 R /23 L to holding tanks just north of the northwest aircraft parking apron. These holding tanks are used for daily operational requirements. Defueling of aircraft is done by utilizing refueler tank trucks.

NAS Oceana has ten aircraft fueling lanes. Each fueling lane has two fueling hydrant outlets. The total number of hydrant outlets is twenty. Fueling lanes 1-6 are located between the northwest aircraft parking apron and Runway 23 L/5 R. Fueling lanes 7-10 are located between the northeast aircraft parking apron and Runway 32 L/14 R. In addition, NAS Oceana has a fleet of refueler trucks that can be radio dispatched to individual aircraft on the airfield.

Table 4-21 has a list of existing aircraft fueling and dispensing facilities along with capacities and condition. Figure 4-1 is a location map showing the location of the various aircraft fueling and dispensing facilities.

Table 4-21 Existing Aircraft Fueling and Dispensing Facilities

Category Code	Facility Number	Designation	U/M	Total Quantity	Condition
121-10	F34	Aircraft Direct Fueling Station – Lane 6	GM / OL	500 / 2	Substandard
121-10	F35	Aircraft Direct Fueling Station – Lane 5	GM / OL	600 / 2	Substandard
121-10	F36	Aircraft Direct Fueling Station – Lane 4	GM / OL	500 / 2	Substandard
121-10	F37	Aircraft Direct Fueling Station – Lane 3	GM / OL	500 / 2	Substandard
121-10	F38	Aircraft Direct Fueling Station – Lane 2	GM / OL	600 / 2	Substandard
121-10	F39	Aircraft Direct Fueling Station – Lane 1	GM / OL	500 / 2	Substandard
121-10	F40	Aircraft Direct Fueling Station – Lane 9	GM / OL	600 / 2	Substandard
121-10	F41	Aircraft Direct Fueling Station – Lane 10	GM / OL	500 / 2	Substandard
121-10	F42	Aircraft Direct Fueling Station – Lane 7	GM / OL	500 / 2	Substandard
121-10	F43	Aircraft Direct Fueling Station – Lane 8	GM / OL	500 / 2	Substandard
121-20	F17	Aircraft Truck Fueling Facility (Fuel Farm)	GM	1,500	Substandard
121-20	F18	Aircraft Truck Fueling Facility (Fuel Farm)	GM / OL	1,500 / 3	Adequate
121-20	F50	Aircraft Truck Fueling Facility (Dispatch Area)	GM / OL	1,000 / 1	Substandard
121-20	F51	Aircraft Truck Fueling Facility (Dispatch Area)	GM / OL	600 / 1	Substandard
121-20	F52	Aircraft Truck Fueling Facility (Dispatch Area) Filter Separator Pad	GM / OL	600 / 1	Substandard
124-30	F11	Aircraft Ready Fuel Storage (Fuel Farm)	GA	420,000	Adequate
124-30	F12	Aircraft Ready Fuel Storage (Fuel Farm)	GA	591,580	Inadequate
124-30	F13	Aircraft Ready Fuel Storage (Fuel Farm)	GA	591,580	Inadequate
124-30	F14	Aircraft Ready Fuel Storage (Fuel Farm)	GA	591,580	Inadequate
124-30	F15	Aircraft Ready Fuel Storage (Fuel Farm)	GA	591,580	Inadequate
124-30	F16	Aircraft Ready Fuel Storage (Fuel Farm)	GA	591,580	Inadequate
124-30	F19	Aircraft Ready Fuel Storage (Fuel Farm)	GA	25,000	Adequate
124-30	F19A	Aircraft Ready Fuel Storage (Fuel Farm)	GA	25,000	Adequate
124-30	F20	Aircraft Ready Fuel Storage (Day Tank)	GA	210,000	Adequate

Figure 4-15

NAS Oceana
Aircraft Fuel Facilities

4.5.3.2 Communications and Navigation Aids

The airfield transmitter facility is located in Building 3030 and Building 3000 houses the airfield receiver facility. The Air Surveillance Radar (ASR-8) is located in Building 3015. 3002 is the Tactical Air Navigation (TACAN) building that houses UHF transmitting equipment which provides omnidirectional azimuth and distance information to aircraft in flight. TACAN is primarily a military short-range navigational aid. The Ground Control Approach (GCA) system at NAS Oceana is comprised of a precision approach radar (PAR) and instrument landing system (ILS) that provide guidance to aircraft approaching and landing at NAS Oceana under all weather conditions. The system employs electronic equipment which will land aircraft automatically, will display signals in the aircraft allowing the pilot to fly the aircraft to the minimums in effect, or will display information for an approach controller on the ground who will talk the pilot in. The PAR is employed on Runways 5R/23L, 5L/23R, and 14R/32L. The ILS is employed on Runway 5R/23L. In addition to the GCA system, NAS Oceana also has a Landing Control Central Trainer (ACLS) which operates in three (3) modes. Mode 1 which will land the aircraft automatically via electronic signal is available on Runway 32R/14L only. Mode 2 which will display signals in the aircraft allowing the pilot to fly the aircraft to the minimums in effect, and Mode 3 that will display information for an approach controller on the ground to talk the pilot in are available on all Runways at NAS Oceana. With the exception of the ASR-8 which is scheduled for upgrade to a Digital Air Surveillance Radar (DASR) in 2004, all navigational aid equipment and facilities are considered adequate to support future airfield requirements.

There are two (2) Radar Air Traffic Control Centers (RATCCs) at NAS Oceana. The RATCC that is used to control the airspace within 5 statute miles of NAS Oceana and 3 mile radius area surrounding NALF Fentress to provide safe, expeditious, and orderly movement of aircraft under all weather conditions is located in Building 100. The RATCC at NAS Oceana also controls a 4 mile wide corridor between NAS Oceana and NALF Fentress. The Fleet Area Control Surveillance Facility Virginia Capes (FACSFAC VACAPES) also has a RATCC in Building 3030. The FACSFAC VACAPES at NAS Oceana schedules and controls airspace for the five (5) aircraft target ranges utilized primarily by squadrons stationed at NAS Oceana. The FACSFAC VACAPES duplicates to some degree the RATCC capabilities operated by the air traffic controllers of NAS Oceana. The FACSFAC VACAPES is charged with the administration, scheduling and coordinating of the Virginia Capes, Atlantic City, Narragansett Bay, Patuxent River and Cherry Point operating Areas. In addition to Ops areas, FACSFAC VACAPES also controls the airspace locating in 10 Warning ("Whiskey") Area and the five aerial target ranges. The five aerial target ranges are Harvey Point, Palmetto Point, Stumpy Point, Dare County, and Tangier Island.

All four (4) runways at NAS Oceana have runway lighting to varying degrees. Runways 5(R)/23(L) and 14(R)/32(L) have standard 2,400 foot high intensity approach lighting system with centerline sequenced flashers. Runways 5(R)/23(L) and 14(R)/32(L) have centerline lights. Touchdown zone lighting is available on Runway 5(R)/23(L). There are painted simulated aircraft carrier landing boxes (not lighted) on Runways 5(R)/23(L) and 14(R)/32(L). All Runways have a Fresnel Lens Optical Landing System (FLOLS). Runway 5(L)/23(R) and 5(R)/23(L) are scheduled to upgrade to the Improved Fresnel Lens Optical Landing System (IFLOLS) in 2004. The runway lighting system is considered adequate for the future needs of Chambers Field.

4.5.3.3 Air Traffic Control Tower

The control tower at NAS Oceana is located in Building 107. Building 107 was built in 2003 immediately adjacent to the Air Operations Building 100 and is considered adequate for the future

needs of Chambers Field to control aircraft movements to and from the runways and aircraft parking aprons.

4.5.3.4 Air Passenger and Air Cargo Terminal

The Air Terminal and Air Cargo Terminal are currently located in the Air Operations Building 100. Because there is no significant future increase in air passengers or air cargo anticipated, the existing facility is considered adequate for the future needs of NAS Oceana.

4.5.3.5 Air Operations Building

The NAS Oceana Air Operations Department provides and operates airfield facilities. The Air Operations Department is broken down into several divisions. They include administrative, air traffic control, airfield management, ground electronics maintenance (GEMD), transient line, and pilot Search and Rescue (SAR). The administrative, air traffic control, and airfield management, and transient line divisions are all located in Building 100. Building 100 was built in 19__ and is considered adequate for the future needs of the Air Operations Department. The SAR are located in Hangar 23. GEMD is located in Building 102. Both Hangar 23 and Building 102 are considered adequate for the future needs of SAR and GEMD respectively.

4.5.3.6 Aviation Training Facilities

NAS Oceana is the primary air operations training facility for the F-18 Hornet and F-14 Tomcat aircraft of the U.S. Atlantic Fleet. All fleet squadrons stationed at NAS Oceana perform a sequence of training exercises to prepare for aircraft carrier deployment. Fleet squadrons train for approximately 18 months and are then deployed with to a aircraft carrier battle group for six months. Upon return from deployment, squadrons begin another sequence of training exercises. During the training, prior to deployment, squadrons conduct local sorties at NAS Oceana and the nearby Atlantic and North Carolina ranges. In addition, squadrons may train as temporary detachments to locations such as NAS Key West and NAS Fallon as well as at-sea exercises. A minimum of four at-sea exercises and a minimum number of Field Carrier Landing Practices (FCLPs) are usually required prior to the deployment. The Fleet Replacement Squadrons (FRSs) for the F-18 Hornet and F-14 Tomcat are currently located at NAS Oceana. In the future the F-14 Tomcat FRS will be replaced by the F-18 Super Hornet FRS. The FRS provides the basic and intermediate level training for aircrews that were previously assigned to fleet squadrons. The FRS training includes some of the most rigorous air training in the Navy. The FRSs are responsible for approximately 35 percent of the air operations at NAS Oceana.

Figure 4-16

NAS Oceana
Training Facilities

Feet
0 250 500 1,000

4.6 Development Plan for NAS Oceana

In the Region, NAS Oceana will remain a vibrant operational airfield. The majority of future operations will come primarily from the F/A-18 "Hornet" and "Super Hornet" aircraft. The plan includes rehabilitation of existing facilities to support mission requirements. The following actions support the future needs for NAS Oceana:

4.6.1 East Coast Home Base for the F/A-18 E/F Super Hornet:

- Construct secure space within existing 02 aircraft maintenance hangar space (Hangar 500)
- Construct secure space within existing 02 aircraft maintenance hangar space (Hangar 404)
- Construct secure space within existing 02 aircraft maintenance hangar space (Hangar 200)
- Construct secure space within existing 02 aircraft maintenance hangar space (Hangar 122)
- Install Point of Use Frequency Converters (PUFCs) on F/A-18 E/F parking apron.
- Reconfigure Building 240 interior.

4.6.2 Enhance Operations

- Repair fire protection system (Hangar 500)
- Repair maintenance spaces (Hangar 200)
- Structural repairs (Hangar 23)
- Roof/Structural repairs (Hangar 404)
- Fire protection/structural repairs (Hangar 122)
- Replace touchdown zone lighting Runway 5R/23L

Table 4-22 Military Construction Projects for NAS Oceana

Priority	Project Number	Project Description	Planning Action	Area (sq. ft.)	Program Year	Cost ($ooo)
1	P-803	Installation of FLEDS on F/A-18E/F Ramp (Northwest Ramp)	Construct		FY05	
	P-827	Modifications to Hangar 200 to Accommodate C-40 Aircraft	Construct		FY05	

Table 4-23 Special Projects for NAS Oceana

Priority	Project Number	Project Description	Planning Action	Area (sq. ft.)	Program Year	Cost
		Hangar 200, Facilities Upgrades for F/A-18E/F, >3,000 SF vaulted hangar space addition (within existing 02 space) > Compressed air system installed in Hangar 200 maintenance bay space > Compressed air system installed in Airframes Shop in Hangar 200				$650,000
		Hangar 500, Facilities Upgrade for F/A-18E/F >3,000 SF vaulted hangar space addition (within existing 02 space) > Compressed air system installed in Airframes Shop in Hangar 500				$600,000
		Hangar 404, Facilities Upgrade for F/A-18E/F > 3,000 SF vaulted hangar space addition (within existing 02 space) > Compressed air system installed in Airframes Shop in Hangar 404				$600,000
		Hangar 111, Facilities Upgrade for F/A-18E/F > 3,000 SF vaulted hangar space addition (within existing 02 space) > Compressed air system installed in Airframes Shop in Hangar 111				$600,000
		Hangar 122, Facilities Upgrade for F/A-18E/F, > 3,000 SF vaulted hangar space addition (within existing 02 space) > Compressed air system installed in Airframes Shop in Hangar 122				$600,000
		Hangar 145, Facilities Upgrade for F/A-18E/F > 3,000 SF vaulted hangar space addition (within existing 02 space) > Compressed air system installed in Airframes Shop in Hangar 145				$600,000
		Building 240, NAMTRAGRU Modifications for Training Equipment			FY04	$190,000
		Hangar 122, Office Modifications for Super Hornet Wing Spaces			FY04	$124,000

Table 4-24 Demolition Projects for NAS Oceana

	Facility Number				Current Status

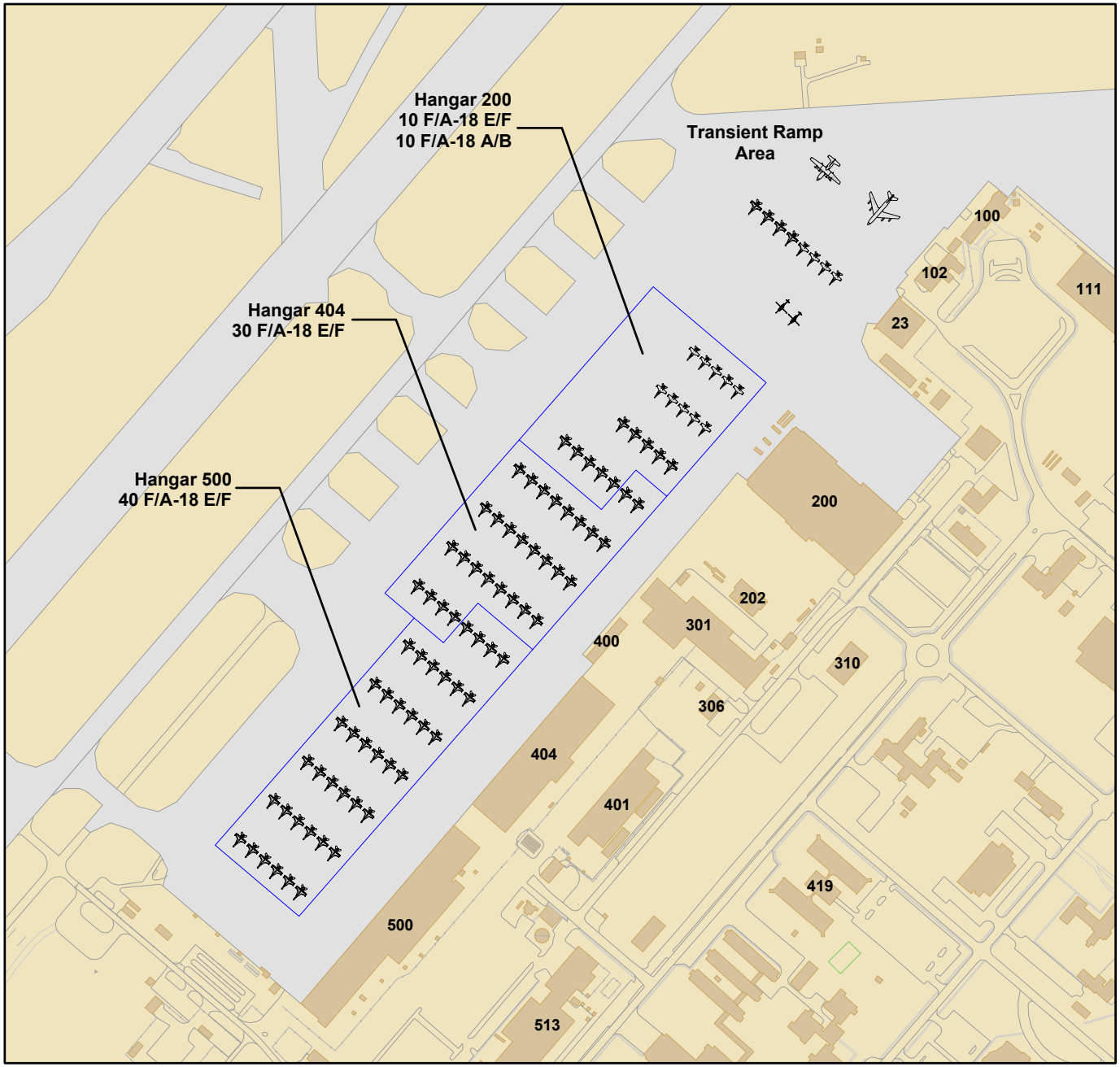


Figure 4-17

Development Plan
Northwest Ramp

- Construct secure space within existing 02 aircraft maintenance hangar space (Hangar 500)
- Construct secure space within existing 02 aircraft maintenance hangar space (Hangar 404)
- Construct secure space within existing 02 aircraft maintenance hangar space (Hangar 200)
- Install Point of Use Frequency Converters (PUFCs) on F/A-18 E/F parking apron.
- Reconfigure Building 240 interior.
- Repair fire protection system (Hangar 500)
- Repair maintenance spaces (Hangar 200)
- Structural repairs (Hangar 23)
- Roof/Structural repairs (Hangar 404)

Feet
0 175 350 700

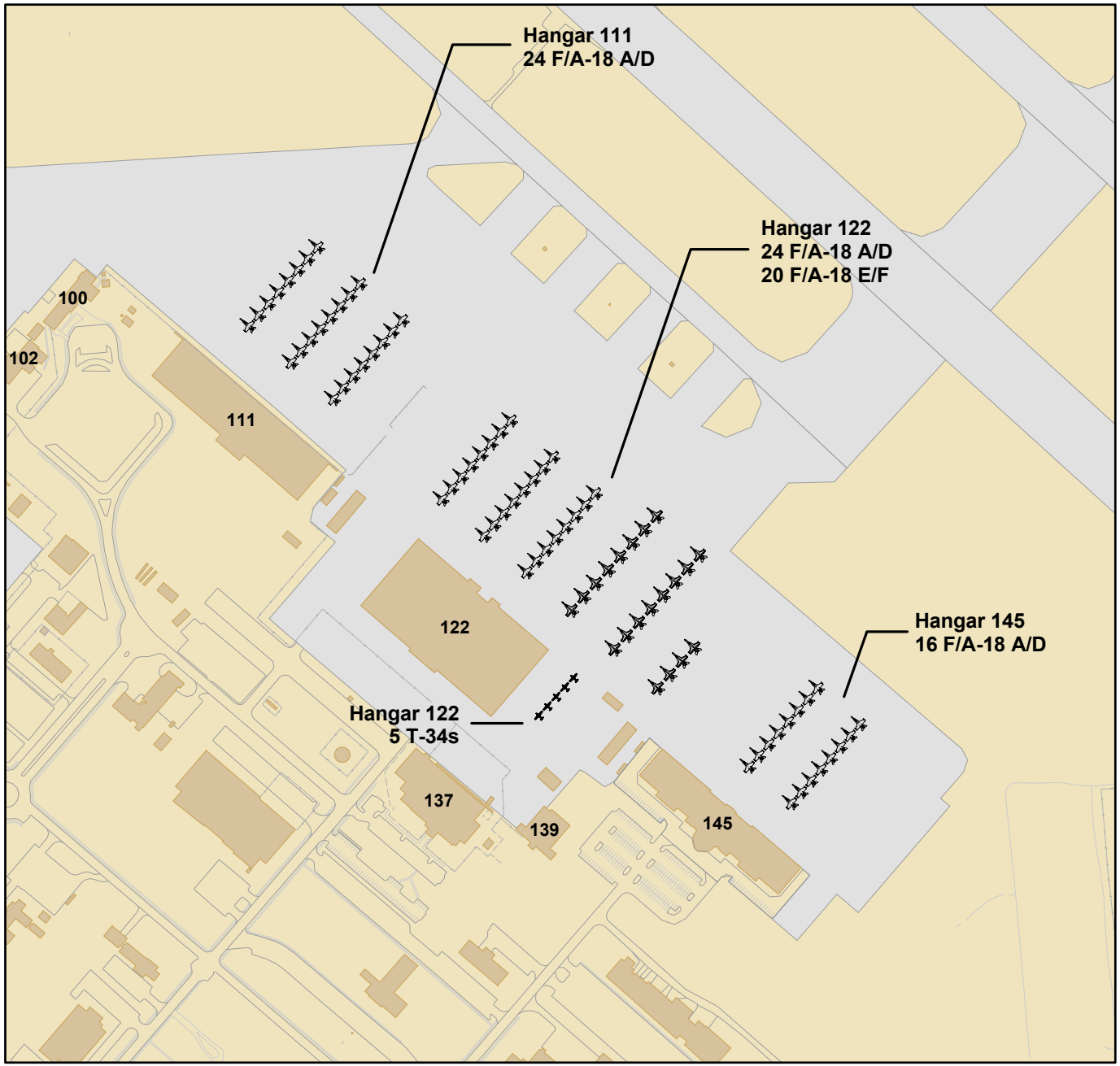


Figure 4-18

Development Plan Northeast Ramp

- Construct secure space within existing 02 aircraft maintenance hangar space (Hangar 122)
- Fire protection/structural repairs (Hangar 122)
- Replace touchdown zone lighting Runway 5R/23L

Feet
0 165 330 660