Airport Background Data and Assumptions Report – Vandenberg Air Force Base

Santa Barbara County
Airport Land Use Compatibility Plan Update

1.0 Introduction

This report describes Vandenberg Air Force Base (Vandenberg or VAFB), its runway and aviation activity, and the surrounding area. Information provided includes descriptions of VAFBs location and history, surrounding land use, airport facilities, and operational activity. The information provided herein is derived from the Vandenberg Air Force Base 1986 Air Installations Compatible Use Zone (AICUZ) Study, the Vandenberg AFB AICUZ Noise Study (December 2006), revised noise data prepared as an addendum to the December 2006 Vandenberg AFB AICUZ Noise Study, and the VAFB website (http://www.vandenberg.af.mil/).

2.0 Airport Background

VAFB is located in far northwestern Santa Barbara County, approximately seven miles northwest of the City of Lompoc and 60 miles northwest of the City of Santa Barbara. An aerial photo showing the Airport at VAFB and surrounding areas is provided in **Exhibit A-1**.

The first military installation to occupy what is now VAFB was Camp Cooke, which was established in 1941 as a U.S. Army training facility. During World War II, Camp Cooke hosted more than 400 units, including armored divisions, infantry divisions, and antiaircraft artillery, combat engineer, ordinance, and hospital units. Following the war, a Branch Disciplinary Barracks for army and navy military prisoners was constructed on Camp Cooke property. This facility was transferred to the U.S. Bureau of Prisons in 1959 and is now the United States Penitentiary at Lompoc. Camp Cooke closed in June 1946, was reopened in 1950 to train troops for the Korean War, and closed again in 1953. In response to a need for a missile launch and training base, 64,000 acres of north Camp Cooke was transferred to the U.S. Air Force in 1956 and the following year was renamed as Cooke Air Force Base. In October 1958, the Cooke Air Force Base was renamed Vandenberg Air Force Base in honor of the late General Hoyt S. Vandenberg, the Air Force's second Chief of Staff. Missile launches from VAFB began the same year. Vandenberg has also served as a launch facility for satellites and supported early activities associated with the space shuttle program.

In May 1958, the Army transferred the southern 19,800 acres of the former Camp Cooke to the U.S. Navy, which renamed the facility the Naval Missile Facility at Point Arguello (NMFPA). In addition to the NMFPA, the Navy developed a Pacific Missile Range with facilities located throughout the Pacific Ocean. Beginning in 1964, this facility was transferred to the Air Force in two phases. The first phase included the transfer of the NMFPA and in 1965, remote properties and resources were also transferred. The Pacific Missile Range came under Air Force control and was renamed the Air Force Western Test Range (now known as the Western Test Range). In 1966, approximately 15,000 acres of land from a ranch located south of the Base was acquired through condemnation.

The current Base is approximately 99,578 acres in size and is the third largest Air Force base in the United States. Existing land use in the environs of the airfield at VAFB is depicted in **Exhibit A-2**. Planned land use is depicted in **Exhibit A-3**.

Table A-1 provides a summary of Airport background information.

Table A-1 - Background Summary – Vandenberg AFB

General Information	Description

Ownership	United States Air Force
Year Opened	1941
Property Size	99,578 Acres
Airport Classification	Military
Airport Elevation	368 feet MSL
Airport Planning Documents	**Description**
Airport Planning Documents	Vandenberg AFB AICUZ Study, 1986; Vandenberg AFB AICUZ Noise Study, 2006.
Planned Facility Improvements	**Description**
Airside	n/a
Landside	n/a

Notes: MSL = Mean Sea Level

Source: Vandenberg Air Force Base AICUZ Study, 1986; Vandenberg Air Force Base Fact Sheet, August 3, 2015 <http://www.vandenberg.af.mil/About-Us/Fact-Sheets/Display/Article/736798/vandenberg-air-force-base/>, accessed March 2017.

3.0 Airport Characteristics

VAFB operates one runway, Runway 12/30. Runway 12/30 is a concrete runway, 15,000 feet long and 200 feet wide. The runway has a Pavement Classification Number of 53/R/B/W/T.[1]

Runway 12/30 is served by one parallel taxiway, Taxiway A. Taxiway A is approximately 7,900 feet long by 100 feet wide and connects to Runway 12/30 at mid-runway and at the Runway 30 end. Taxiway A is connected to the airport apron by Taxiways B and C. Taxiway D connects the runway, Taxiway A, and the airport apron.

VAFB operates an Air Traffic Control Tower (ATCT). The ATCT is open between 8:00 am and 5:00 pm, Monday through Friday. The ATCT does not operate on weekends and holidays and is open approximately 250 days a year.

Visual aids at VAFB include high intensity runway lighting, four-light Precision Approach Path Indicators on both runway ends, and standard 2,400-foot high intensity approach lighting system with centerline sequenced flashers (ALSF2) on both runway ends. The Runway 30 ALSF has a non-standard configuration with threshold lights located 17 feet from the useable pavement surface.

There are currently eight published instrument approaches to the Airport: HI-ILS OR LOC/DME RWY 12, HI-ILS OR LOC/DME RWY 30, ILS OR LOC/DME RWY 12, ILS OR LOC/DME RWY 30, HI-TACAN RWY 12, HI-TACAN RWY 30, TACAN RWY 12, TACAN RWY 30. These instrument approaches are described in greater detail in **Table A-2**. VAFB is also served by two Standard Instrument Departure (SID) of Departure Procedures, the GAVIOTA TWO and the VANDENBERG TWO.

[1] 53/R/B/W/T represents the Pavement Classification Number (PCN) for the runway. The PCN is comprised of a code representing numerical PCN value, pavement type, subgrade category, allowable tire pressure, and method used to determine the PCN. For 53/R/B/W/T, “53” represents the PCN numerical value, “R” - rigid pavement, “B” - medium strength subgrade, “W” - high allowable tire pressure, and “T” - a PCN value obtained by a technical evaluation. (FAA AC 150/5335-5C).

SOURCE: ESRI, Inc., 2019.

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Exhibit A-1
Vandenberg Air Force Base
Airport and Surrounding Areas

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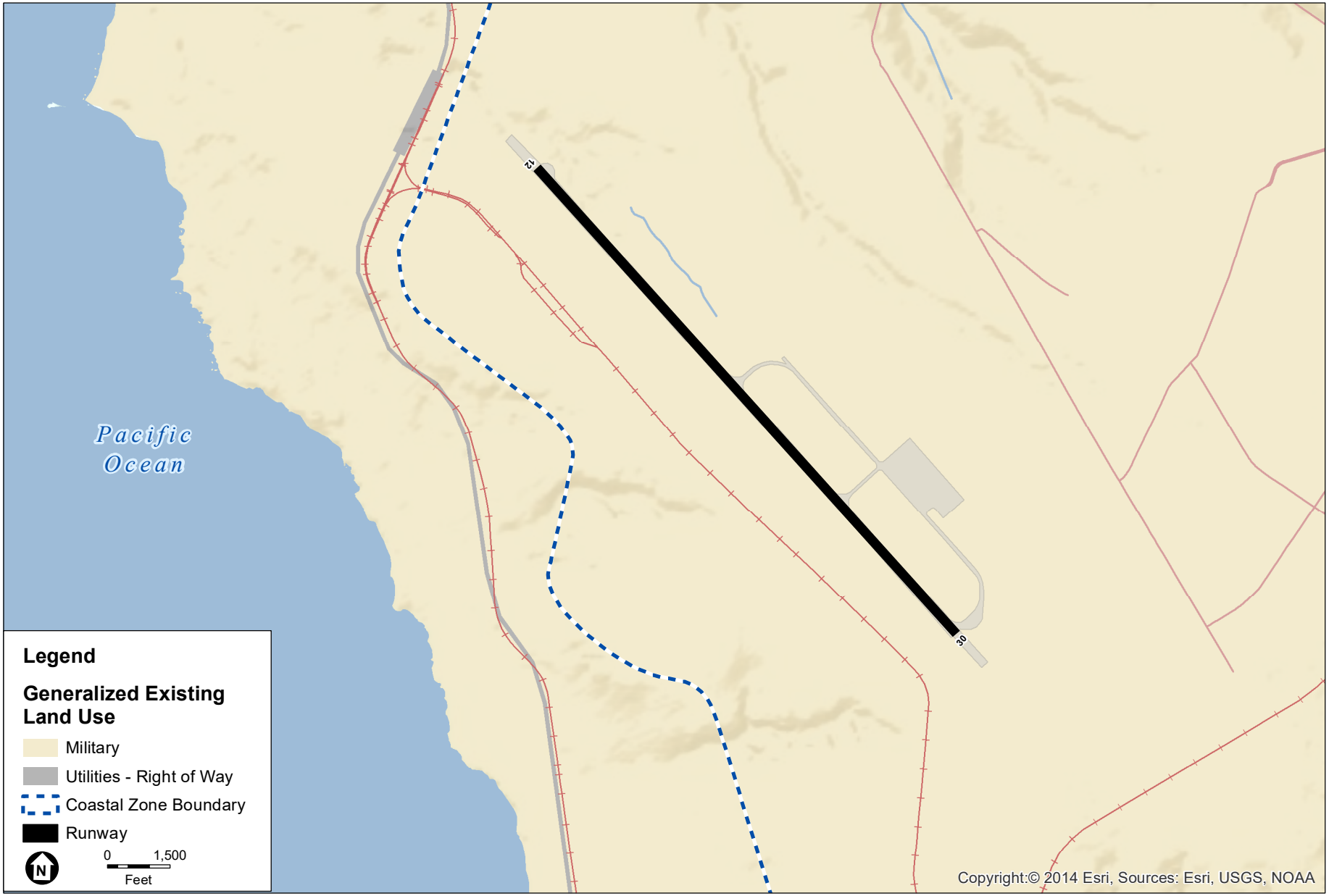

SOURCE: Santa Barbara County Tax Assessor, July 2017.

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Exhibit A-2
Vandenberg Air Force Base
Generalized Existing Land Use

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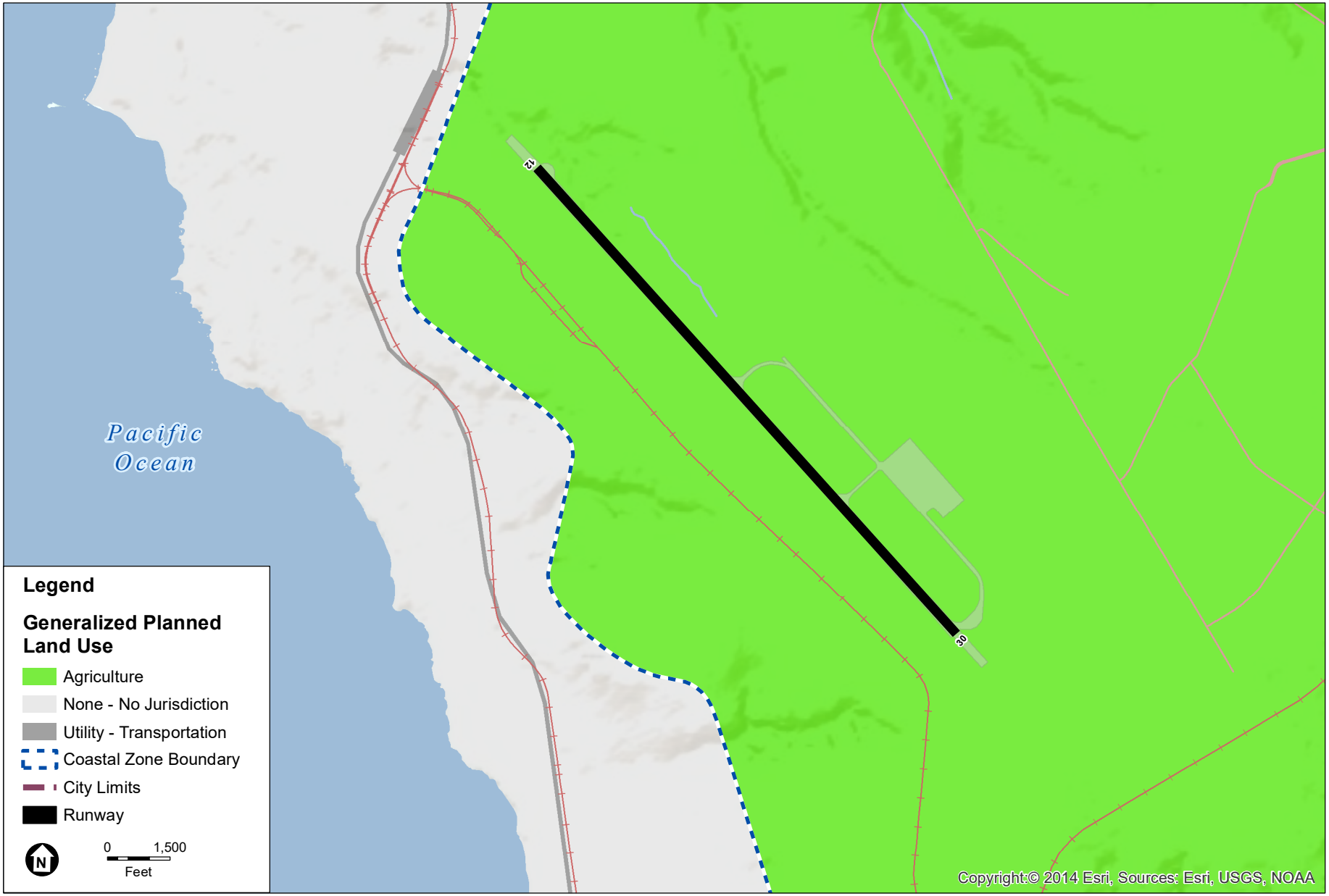

SOURCE: Santa Barbara County Comprehensive Plan, 2019.

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Exhibit A-3
Vandenberg Air Force Base
Generalized Planned Land Use

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Table A-2 - Airport Facilities Summary – Vandenberg AFB

Airside Facilities					
Runways	**Description**				
Runway Designation	12/30				
Runway Dimensions	15,000’ x 200’				
Pavement Strength	CN 53/R/B/W/T				
Runway Lighting	HIRL				
Taxiways	A, B, C, D				
Traffic Patterns and Approach Procedures	**Description**				
Aircraft Traffic Patterns					
• Runway 12	Left				
• Runway 30	Left				
Pattern Altitude	TFC PAT: LGT ACFT 1,400’ MSL, HELICOPTER 900’ MSL.				
Instrument Approach Procedures	**Type**	**Navigational Aids**	**Aircraft Category**	**Minimums**	
				Ceiling	**Visibility**
HI-ILS OR LOC/DME RWY 12	ILS	LOC	C, D, E	467’	2,400’
	LOC	LOC	C	700’	4,000’
	LOC	LOC	D, E	700’	5,000’
	Circling	LOC	C	1,020’	1 ¾ miles
	Circling	LOC	D	1,040’	2 ¼ miles
	Circling	LOC	E	1,540’	3 miles
HI-ILS OR LOC/DME RWY 30	ILS	LOC	C, D, E	569’	2,400’
	LOC	LOC	C	940	5,000’
	LOC	LOC	D	940	6,000’
	LOC	LOC	E	940	1 ½ miles
	Circling	LOC	C	1,020’	1 ¾ miles
	Circling	LOC	D	1,040’	2 ¼ miles
	Circling	LOC	E	1,540’	3 miles
ILS OR LOC/DME RWY 12	ILS	LOC	A, B, C, D, E	467’	2,400’
	LOC	LOC	A, B	700’	2,400’
	LOC	LOC	C	700’	4,000’
	LOC	LOC	D, E	700’	5,000’
	Circling	LOC	A	980’	1 mile
	Circling	LOC	B	1,000’	1 mile
	Circling	LOC	C	1,020’	1 ¾ miles
	Circling	LOC	D	1,040’	2 ¼ miles
	Circling	LOC	E	1,540’	3 mile

Table A-2 - Airport Facilities Summary – Vandenberg AFB (continued)

Instrument Approach Procedures	Type	Navigational Aids	Aircraft Category	Minimums	
				Ceiling	Visibility
ILS OR LOC/DME RWY 30	ILS	LOC	A, B, C, D, E	569’	2,400’
	LOC	LOC	A, B	940’	2,400’
	LOC	LOC	C	940’	5,000’
	LOC	LOC	D	940’	6,000’
	LOC	LOC	E	940	1 ½ miles
	Circling	LOC	A	980’	1 mile
	Circling	LOC	B	1,000’	1 mile
	Circling	LOC	C	1,020’	1 ¾ miles
	Circling	LOC	D	1,040’	2 ¼ miles
	Circling	LOC	E	1,540’	3 miles
HI-TACAN RWY 12	Straight in	TACAN	C	740’	4,000’
	Straight in	TACAN	D	740’	5,000’
	Straight in	TACAN	E	740’	6,000’
	Circling	TACAN	C	1,020’	1 ¾ miles
	Circling	TACAN	D	1,040’	2 ¼ miles
	Circling	TACAN	E	1,540’	3 miles
HI-TACAN RWY 30	Straight in	TACAN	C	920’	5,000’
	Straight in	TACAN	D	920’	6,000’
	Straight in	TACAN	E	920	1 ½ miles
	Circling	TACAN	C	1,020’	1 ¾ miles
	Circling	TACAN	D	1,040’	2 ¼ miles
	Circling	TACAN	E	1,540’	3 miles
TACAN RWY 12	Straight in	TACAN	A, B	740’	2,400’
	Straight in	TACAN	C	740’	4,000’
	Straight in	TACAN	D	740’	5,000’
	Straight in	TACAN	E	740’	6,000’
	Circling	TACAN	A	980’	1 mile
	Circling	TACAN	B	1,000’	1 mile
	Circling	TACAN	C	1,020’	1 ¾ miles
	Circling	TACAN	D	1,040’	2 ¼ miles
	Circling	TACAN	E	1,540’	3 miles

Table A-2 - Airport Facilities Summary – Vandenberg AFB (continued)

Instrument Approach Procedures	Type	Navigational Aids	Aircraft Category	Minimums	
				Ceiling	Visibility
TACAN RWY 30	Straight in	TACAN	A, B	920'	2,400'
	Straight in	TACAN	C	920'	5,000'
	Straight in	TACAN	D	920'	6,000'
	Straight in	TACAN	E	920'	1 ½ miles
	Circling	TACAN	A	980'	1 mile
	Circling	TACAN	B	1,000'	1 mile
	Circling	TACAN	C	1,020'	1 ¾ miles
	Circling	TACAN	D	1,040'	2 ¼ miles
	Circling	TACAN	E	1,540'	3 miles
Visual Approach Aids	• 4-Light PAPI (3.00 degrees glide path) Runways 12 and 30; • Runway 12 - ALSF2: standard 2,400 ' high intensity approach lighting system with centerline sequenced flashers (category II or III); • Runway 30 – ALSF2: standard 2,400 ' high intensity approach lighting system with centerline sequenced flashers (category II or III) Runway 30 approach lighting system is non-standard ALSF2 configuration. Threshold lights are 17 feet from the useable pavement surface.				

Notes: ALSF = Standard high intensity approach lighting system with centerline sequenced flashers
MIRL =Medium intensity runway lights
MSL=Mean sea level

Source: Vandenberg AFB AICUZ Study, 1986; Federal Aviation Administration National Flight Data Center <https://nfdc.faa.gov/nfdcApps/services/airportLookup/airportDisplay.jsp?airportId=kvbg>, accessed March 2017.

4.0 Airport Activity

Aircraft operational data is derived from the Vandenberg AFB AICUZ Noise Study from December 2006 and noise data prepared in 2009 as an addendum to the December 2006 Vandenberg AFB AICUZ Noise Study. The transient operations described in the 2006 Noise Study are representative of current operations at VAFB. There are no based aircraft at VAFB and all operations represent arrivals, departures, and operations within VAFB's closed traffic pattern by transient aircraft. Aircraft operating at VAFB represent a mix of fixed and rotary wing (i.e., helicopters) aircraft.

Table A-3 summarizes aircraft activity at VAFB.

Table A-3 – Airport Activity Data – Vandenberg AFB

Transient Aircraft Operations[1]	Departures			Arrivals			Closed Patterns			Total
	D[2]	E[2]	N[2]	D[2]	E[2]	N[2]	D[2]	E[2]	N[2]	
BB727, KC-10, L1011	0.024	0.000	0.020	0.036	0.000	0.008	0.000	0.000	0.000	0.088
B737, B734, B757, CL604, C9	0.032	0.000	0.008	0.040	0.000	0.000	0.000	0.000	0.000	0.080
C12, BE20, SW4, C26, METRO4	0.264	0.000	0.000	0.264	0.000	0.000	0.960	0.000	0.000	2.448
C-130	0.228	0.000	0.000	0.228	0.000	0.000	2.08	0.000	0.000	4.616
C-17	0.124	0.000	0.000	0.124	0.000	0.000	0.480	0.000	0.000	1.208
C135, EC35, C135, E6	0.112	0.000	0.000	0.112	0.000	0.000	0.480	0.000	0.000	1.184
C172, C182, PA28, PA31	0.028	0.000	0.000	0.024	0.000	0.004	0.000	0.000	0.000	0.056
C2, E2	0.022	0.000	0.000	0.022	0.000	0.000	2.080	0.000	0.000	4.204
C20, C21, G200, GLF3, C37, UC35	0.220	0.004	0.004	0.220	0.004	0.004	0.480	0.000	0.000	1.416
C5, H/C5, A124	0.076	0.004	0.000	0.080	0.000	0.000	0.480	0.000	0.000	1.120
EA-6B	0.060	0.000	0.000	0.060	0.000	0.000	0.480	0.000	0.000	1.080
F-16	0.014	0.000	0.000	0.000	0.000	0.000	0.192	0.000	0.000	0.412
F-18	0.072	0.000	0.012	0.012	0.000	0.028	0.381	0.000	0.000	0.930
P-3	0.048	0.000	0.000	0.048	0.000	0.000	0.480	0.000	0.000	1.056
T-38	0.324	0.000	0.008	0.328	0.000	0.004	1.536	0.000	0.000	3.736
OH58, HH60, UH1	0.032	0.000	0.004	0.036	0.000	0.000	0.000	0.000	0.000	0.072
								Total Operations[4]		13.993 (23.706)[3]

Notes:

1/ Information on transient aircraft operations at Vandenberg AFB was obtained from CY2006 Base Operations data records. Using these records, the average daily operations for each transient or civil aircraft was calculated by first computing its total yearly operations at the installation and then dividing the total by 250 days. Aircraft with very small daily operations were combined and grouped with others of a similar type. Information about transient aircraft flying patterns at Vandenberg was provided by ATC personnel. The ATC T at Vandenberg AFB is only open on week days (M-F), and is closed on weekends and holidays.

2/ D=0700-1900 hours; E=1900-2200 hours; N=2200-0700 hours

3/ Total Daily Operations = Arrivals + Departures + (2 x Closed Patterns). A closed pattern counts as two operations because it consists of a departure segment and an arrival segment.

4/ A transient aircraft may be grouped with similar aircraft in an appropriate category, if its daily operations are less than 0.50.

Source: Vandenberg AFB AICUZ Noise Study, 2006.

5.0 Draft Compatibility Factors

The four compatibility factors depicted on the following exhibits were developed consistent with guidance provided in the California Department of Transportation's (Caltrans) Airport Land Use Compatibility Handbook Update (Handbook) (2011) and represent data provided in the Vandenberg Air Force Base's 1986 AICUZ Study and the Vandenberg AFB AICUZ Noise Study (December 2006). Each compatibility factor is further discussed below.

5.1 Draft Noise Compatibility Data

Exhibit A-4 shows noise contours reflecting operating conditions at VAFB for year 2009 conditions as provided consistent with the 2009 noise contours produced as an addendum to the December 2006 AICUZ Noise Study. As shown on the Exhibit, the noise contours reflect 8,652 annual operations, or 23.706 annual average daily operations. There are no based aircraft at VAFB and all operations represent transient aircraft either arriving, departing, or operating within VAFB's closed traffic pattern.

5.2 Draft Safety Compatibility Data

Exhibit A-5 shows the Accident Potential Zones (APZs) for the Airport. The APZs for VAFB were provided in the 1986 Vandenberg AFB AICUZ Study and represent standard APZs employed at military airfields. **Table A-4** describes APZs in detail.

Table A-4 – Accident Potential Zones

Landside Facilities	
Safety Zone	**Description**
Clear Zone	• Runway Protection Zone • The trapezoidal area lying immediately beyond the end of the runway and outward along the extended runway centerline for a distance of 3,000 feet.
APZ I	• The rectangular area beyond the Clear Zone, APZ I is typically 3,000 feet wide by 5,000 feet long and may be rectangular or curved to conform to the predominant flight track.
APZ II	• The rectangular area beyond APZ I, typically 3,000 feet wide by 7,000 feet long, and like APZ I, may be curved to correspond to the predominant flight track.

Source: Caltrans Airport Land Use Compatibility Handbook, 2011.

5.3 Draft FAR Part 77 Airspace Compatibility Data

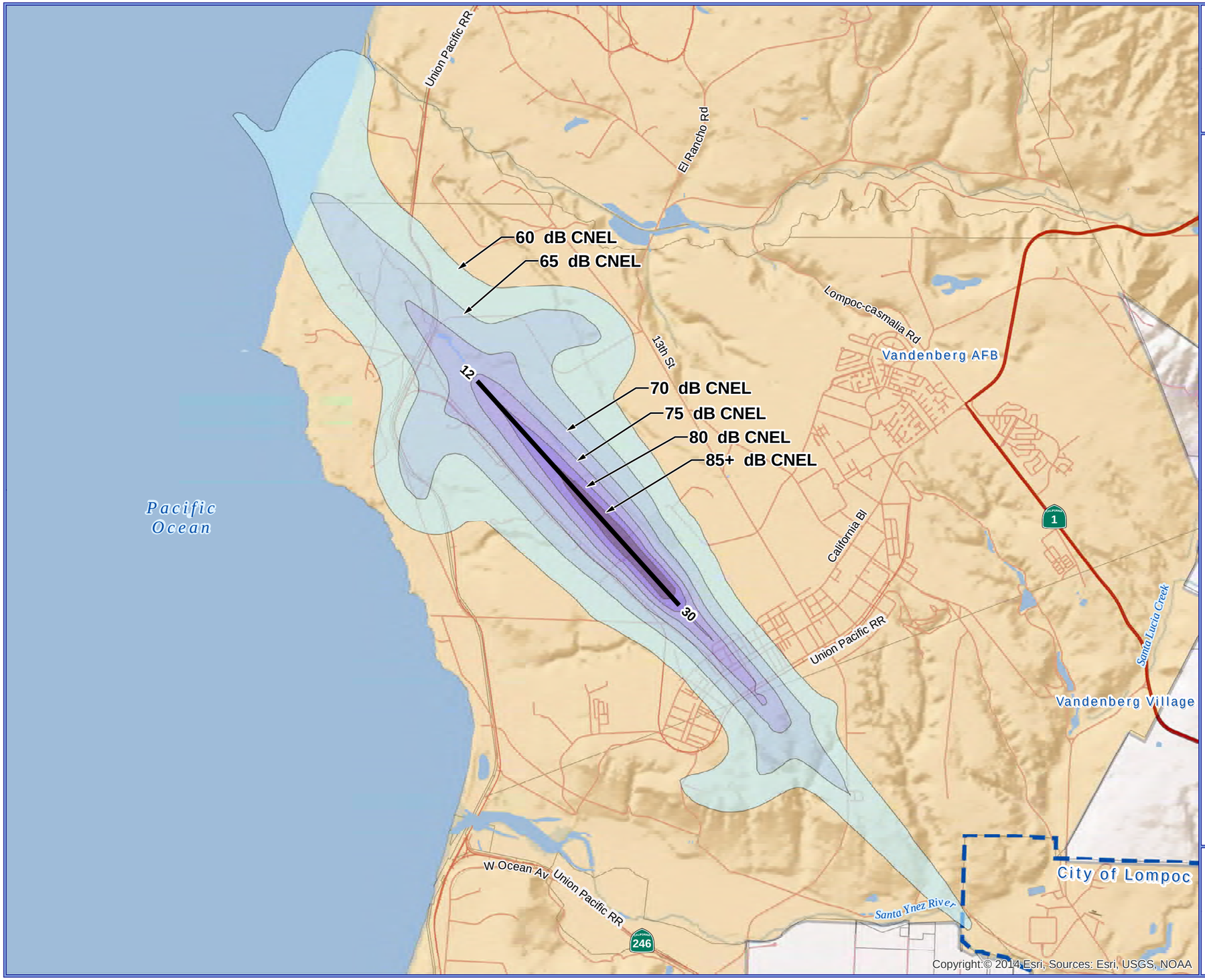
Exhibit A-6 shows the Airspace Control Surface Plan derived from Appendix E of 1986 Vandenberg AFB AICUZ Study. The Exhibit depicts the planes and surfaces that constitute the airspace protection surfaces for Vandenberg AFB.

5.4 Draft Overflight Compatibility Data

Exhibit A-7 shows the overflight notification area for VAFB. The overflight notification area includes all areas covered by the Airspace Control Surface Plan, as described in Section 5.3, above, as well as traffic patterns that extend beyond the Surface Plan boundaries. Generally, flight tracks used to model noise contours are dispersed to account for normal variation in aircraft flight paths. However, as no dispersal tracks were available, generalized corridors centered on the flight tracks are depicted.

5.5 Draft Airport Influence Area

Exhibit A-8 shows the Airport Influence Area (AIA) for VAFB. The AIA is “the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses.” (Business and Professions Code 11010(b)(13)(b).) As Vandenberg AFB is owned by the federal government, it is not subject to the ALUCP. The crosshatched areas show the portions of the AIA located “off base” and subject to the jurisdiction of the Airport Land Use Commission. The AIA is divided into two areas. Review Area 1 and Review Area 2. Review Area 1 consists of a combination of the noise contours and APZs, and represents areas where noise and/or safety concerns may require limitations on the type and density/intensity of compatible land uses. Review Area 2, consists of areas beyond Review Area 1 but within the area covered by the combined airspace surfaces and overflight notification area. Restrictions on the height of objects within Review Area 2 may apply.



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Legend

Noise Exposure Range

- 60 - 65 dB
- 65 - 70 dB
- 70 - 75 dB
- 75 - 80 dB
- 80 - 85 dB
- 85+ dB
- Runways
- Vandenberg Air Force Base
- City Limits
- Freeways/Highways
- Primary, Secondary or Minor Streets

Prepared by: URS Corporation; CPH Jones Consulting; ATAC Corporation

Source: Parcels - County of Santa Barbara Clerk-Recorder-Assessor's Mapping Division, November 2016; Roadway Centerlines - Santa Barbara County Mapping and GIS, December 2010; ESRI Layer Package: North American Airports - ESRI, November 2010; World Shaded Relief - ESRI Online (Sources ESRI, USGS, NOAA), 2014 (Updated February 2017), http://goto.arcgisonline.com/maps/World_Shaded_Relief.

0 1 2 Miles

0 2,500 5,000 7,500 10,000 Feet

NAD 1983 StatePlane California V FIPS 0405 (US Feet)

N

Exhibit A-4

Noise Compatibility Data Map: Vandenberg Air Force Base

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Legend

Safety Zones
- Clear Zone
- Accident Protection Zone I
- Accident Protection Zone II
- Runways
- Vandenberg Air Force Base
- City Limits
- Parcel Lines
- Freeways/Highways
- Primary, Secondary or Minor Street

Prepared by: URS Corporation; CPH Jones Consulting; ATAC Corporation.

Source: Parcels - County of Santa Barbara Clerk-Recorder-Assessor's Mapping Division, November 2016; Roadway Centerlines - Santa Barbara County Mapping and GIS, December 2010; ESRI Layer Package: North American Airports - ESRI, November 2010; World Shaded Relief - ESRI Online (Sources ESRI, USGS, NOAA), 2014 (Updated February 2017), http://goto.arcgisonline.com/maps/World_Shaded_Relief.

0 1 2 3 Miles

0 6,000 12,000 Feet

NAD 1983 StatePlane California V FIPS 0405 (US Feet)

N

Exhibit A-5

Safety Compatibility Data Map: Vandenberg Air Force Base

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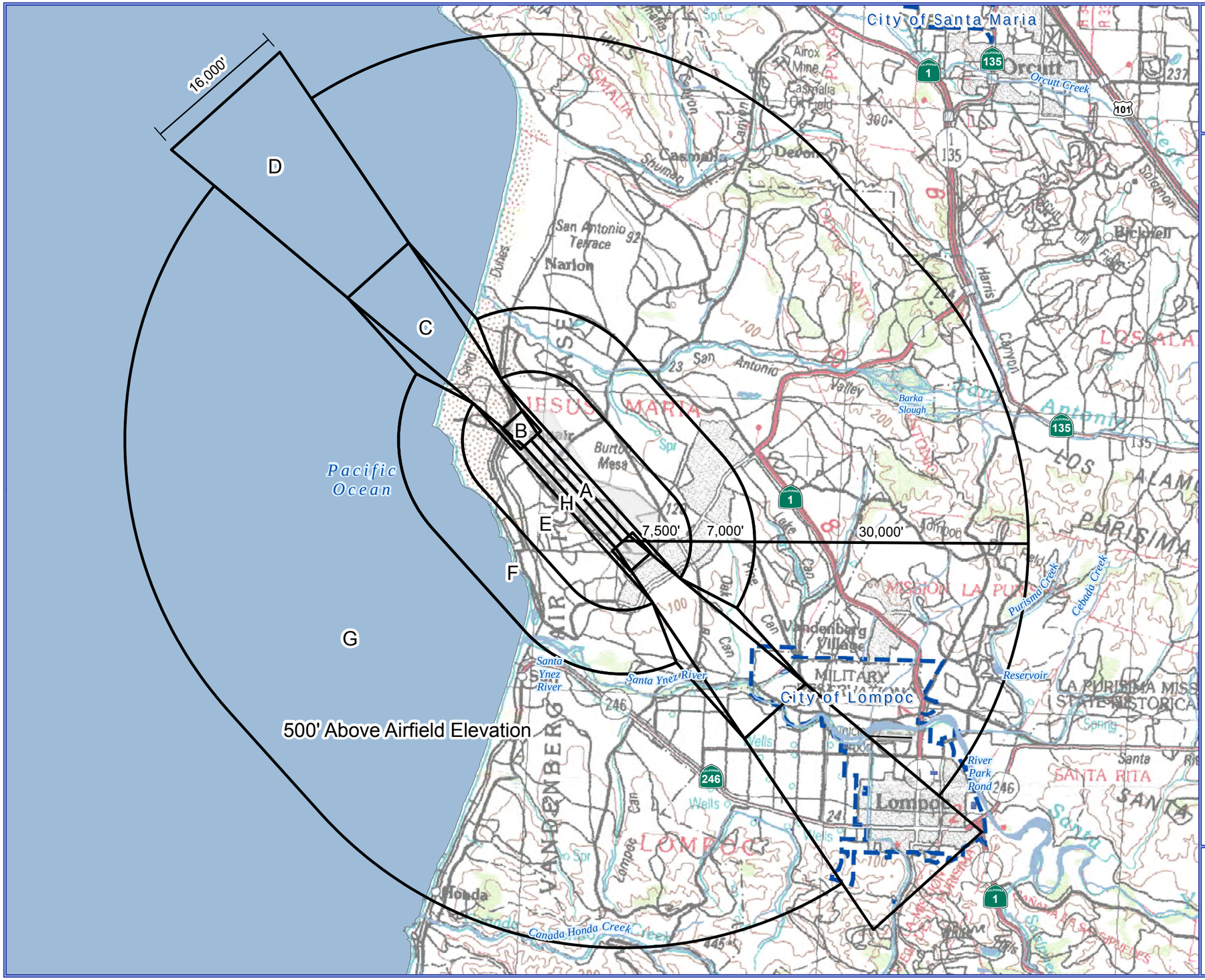

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Legend

- Airspace Control Surfaces
- Runways
- City Limits

Notes:

A. Primary Surface.
B. Clear Zone Surface (3,000' x 3,000').
C. Approach-Departure Clearance Surface (Glide Angle)
D. Approach-Departure Clearance Surface (Horizontal)
E. Inner Horizontal Surface
F. Conical Surface
G. Outer Horizontal Surface
H. Transitional Surface

Prepared by: URS Corporation; CPH Jones Consulting; ATAC Corporation

Source: Parcels - County of Santa Barbara Clerk-Recorder-Assessor's Mapping Division, November 2016; Roadway Centerlines - Santa Barbara County Mapping and GIS, December 2010; ESRI Layer Package: North American Airports - ESRI, November 2010; World Shaded Relief - ESRI Online (Sources ESRI, USGS, NOAA), 2014 (Updated February 2017), http://goto.arcgisonline.com/maps/World_Shaded_Relief.

0 1 2 3 4 5 Miles

0 4,000 8,000 12,000 16,000 20,000 Feet

NAD 1983 StatePlane California V FIPS 0405 (US Feet)

Exhibit A-6

Part 77 Airspace Protection Compatibility Data Map: Vandenberg Air Force Base

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Legend

- Overflight Notification Area
- Real Estate Disclosure Area Boundary
- Lompoc Airport Overflight Notification Area

Generalized Flight Corridors

Altitude (AGL)

- >3,500'
- 2,000-3,500'
- <2,000'
- Outer Boundary - Part 77 Conical and Approach Surfaces
- VAFB Helipad
- Runways
- Vandenberg Air Force Base
- City Limits
- Parcel Lines
- Freeways/Highways
- Primary, Secondary or Minor Street

Notes:

1. AGL = above ground level
2. Airport elevation 392 feet above mean sea level
3. Flight tracks represent both helicopter and fixed-wing operations.
4. Aircraft altitudes estimated based on information included in the Vandenberg AFB AICUZ Noise Study, 2006.
5. Unless otherwise noted, for helicopter operations estimated average altitude along flight tracks is 500 feet AGL.

Prepared by: URS Corporation; CPH Jones Consulting; ATAC Corporation

Source: Parcels - County of Santa Barbara Clerk-Recorder-Assessor's Mapping Division, November 2016; Roadway Centerlines - Santa Barbara County Mapping and GIS, December 2010; ESRI Layer Package: North American Airports - ESRI, November 2010; World Shaded Relief - ESRI Online (Sources ESRI, USGS, NOAA), 2014 (Updated February 2017), http://goto.arcgisonline.com/maps/World_Shaded_Relief.

0 1 2 3 4 Miles

0 4,000 8,000 12,000 16,000 20,000 Feet

NAD 1983 StatePlane California V FIPS 0405 (US Feet)

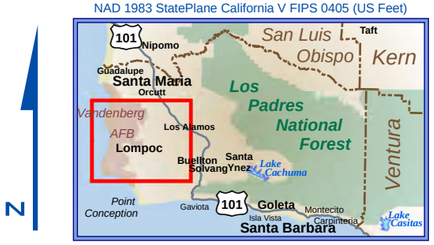

Exhibit A-7

Overflight Compatibility Data Map: Vandenberg Air Force Base

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Legend

- AIA-Review Area 1
- AIA-Review Area 2
- Extent of ALUC Jurisdiction
- Runways
- Vandenberg Air Force Base
- City Limits
- Parcel Lines
- Freeways/Highways
- Primary, Secondary or Minor Street

Prepared by: URS Corporation; CPH Jones Consulting; ATAC Corporation

Source: Parcels - County of Santa Barbara Clerk-Recorder-Assessor's Mapping Division, November 2016; Roadway Centerlines - Santa Barbara County Mapping and GIS, December 2010; ESRI Layer Package: North American Airports - ESRI, November 2010; World Shaded Relief - ESRI Online (Sources ESRI, USGS, NOAA), 2014 (Updated February 2017), http://goto.arcgisonline.com/maps/World_Shaded_Relief.

0 1 2 3 4 Miles

0 5,000 10,000 15,000 20,000 25,000 Feet

NAD 1983 StatePlane California V FIPS 0405 (US Feet)

Exhibit A-8

Airport Influence Area: Vandenberg Air Force Base

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