

# JLUS Planning Map

## Joint Land Use Study (JLUS)

The JLUS for the Naval Air Station (NAS) Fort Worth Joint Reserve Base (JRB) region was published in March 2008 and is an initiative of Benbrook, Fort Worth, Lake Worth, River Oaks, Westworth Village, White Settlement, and Tarrant County, in cooperation with the North Central Texas Council of Governments.

The JLUS program was developed by the Department of Defense as a cooperative land use planning effort between affected local government(s) and military installations. The JLUS program is designed to provide a cooperative environment within which present and future land development and land use decisions can be made.

The 2008 JLUS evaluated the current status of the implementation of the recommendations issued in the 2002 Air Installations Compatible Use Zones (AICUZ) Study and to make recommendations for additional actions by local governments designed to improve land use decisions that may affect the mission of the base.

## Overview

All military installations attract development. Housing is constructed for military installation employees who want to live near the installation, and businesses are established to cater to the airport. As development increases around the airfield, more people are exposed to the noise and accident potential associated with aircraft operations.

In the early 1970s, the United States Department of Defense (DOD) initiated the Air Installations Compatible Use Zones (AICUZ) Program to balance the need for aircraft operations with community concerns related to aircraft noise and accident potential. The goal of the AICUZ Program is to protect the health, safety, and welfare of those living and working in the vicinity of a military installation while sustaining the Navy's operational mission. Under the AICUZ Program, the Navy has established guidelines that define high-noise zones and accident potential zones (APZs) surrounding a military airfield and recommends land uses that are compatible within these zones. Local governments are encouraged to incorporate AICUZ guidelines as an element of land use planning and development practices. The Navy's guidance on AICUZ may be found in the Chief of Naval Operations Instruction (OPNAVINST) 11010.36C.

## Noise Zones

The DOD identifies noise exposure zones surrounding a military airfield as a planning tool for local municipalities. Noise exposure from aircraft is measured using the day-night average sound level (DNL). DNL is an average of cumulative noise exposure produced by individual events that occur over a 24-hour period. Noise generated from each event is accounted for by a noise metric that integrates the changing sound level over time. Aircraft operations conducted at night (between 10:00 p.m. and 7:00 a.m.) are weighted to represent the added intrusiveness of sounds occurring during normal sleeping hours, when ambient sound levels are typically lower. Although DNL provides a single measure of overall noise impact, it does not provide specific information on the number of noise events or the individual sound levels that occur during the day. The DNL is depicted visually as a noise contour that connects points of equal value.

## Accident Potential Zones (APZs)

The DOD identifies APZs as areas where an aircraft accident is most likely to occur in the vicinity of airfields; however, APZs do not reflect the probability of an accident. APZs follow the departure, arrival, and pattern flight tracks of a runway and are based upon analysis of historical data DOD-wide. The DOD provides APZs as a planning tool to assist municipalities with land use planning and future community development. The DOD defines three APZs—the Clear Zone, APZ I, and APZ II. The Clear Zone extends beyond the runway and has the highest potential for accidents. APZ I extends beyond the Clear Zone, and APZ II extends beyond APZ I. If an accident were to occur, it would most likely occur in the Clear Zone and would be more likely to occur in APZ I than APZ II.

## NAS Fort Worth JRB, Fort Worth, Texas



The mission of NAS Fort Worth JRB is to provide "unsurpassed support and quality training for our Reserve and Guard war fighters in all branches of the Armed Services." NAS Fort Worth JRB ensures that reservists receive quality training in preparation for mobilization readiness. Specifically, the installation's primary responsibility is to train and equip air crews and aviation ground support personnel in preparation for deployment.

The Navy is the host of the JRB, which is currently used by units of the of United States Army, Navy, Marine Corps, and Air Force; the Texas Air National Guard; and non-military tenants. Lockheed Martin Air Force Plant 4 is located adjacent to NAS Fort Worth JRB. Lockheed Martin is currently manufacturing the F-16 Fighting Falcon and provides final stages of manufacture, assembly, and delivery of the F-35.

The station has been a military aviation facility since it was built in 1932 and continues to be an ideal location for military air operations. NAS Fort Worth JRB has one north-south runway, Runway 18/36, and utilizes designated airspace to conduct training exercises. NAS Fort Worth JRB is located in Tarrant County, Texas, within the greater Dallas/Fort Worth metro area, just 6 miles west of downtown Fort Worth and immediately south of the Lake Worth reservoir.

## Compatible Development

To protect public health, safety, and welfare, land use should be compatible with airfield noise zones, APZs, and flight safety criteria. Land use activities outside of the installation boundaries fall under the jurisdiction of local governments and can have impacts on DOD operations in the area. The JLUS provides tools for local governments to protect public health, safety, and welfare by encouraging compatible development around the airfield while still supporting the Navy mission.

The Navy's AICUZ compatibility guidelines encourage noise-sensitive land uses (e.g., houses, churches) to be placed outside high-noise zones and discourages people-intensive uses (e.g., apartments, theaters) in APZs. Such uses are incompatible in that they jeopardize public health, safety, and welfare. Table 1 provides a general overview of land use compatibility recommendations for development within the noise zones and APZs.

Local communities are encouraged to restrict development that could endanger safety or compromise aircraft operations. The Federal Aviation Administration (FAA) and DOD have defined flight safety zones (imaginary surfaces) below aircraft arrival and departure flight tracks and surrounding the airfield. To ensure safety, the heights of structures and vegetation are restricted in these zones.

The FAA and DOD height standards are presented in the U.S. Code of Federal Regulations, Title 14, Part 77, "Objects Affecting Navigable Airspace." The FAA must be notified of any development that is inconsistent with height standards.

Additional hazards include:

- Uses that would attract birds, especially waterfowl
- Towers, structures, and vegetation that penetrate navigable airspace
- Lighting (direct or reflected) that would impair pilot vision
- Uses that would generate smoke, steam, or dust
- Electromagnetic interference (EMI) with aircraft communication, navigation, or other electrical systems

## Real Estate Disclosure

Areas in the vicinity of NAS Fort Worth JRB experience aircraft noise and over-flights to varying degrees. Property owners, buyers, and lessees need to be aware of where their property is located within the noise contours and APZs and the potential impact from military activities. Real estate disclosures allow prospective buyers, lessees, or renters of property in the vicinity of NAS Fort Worth JRB to make informed decisions regarding the purchase or lease of property.

Table 1: Land Use Classifications and Compatibility Guidelines

Land Use	Land Use Compatibility with AICUZ Noise Zone (DNL)						Land Use Compatibility with APZs		
	Noise Zone 1		Noise Zone 2		Noise Zone 3		Clear Zone	APZ I	APZ II
	<55	55-65	65-70	70-75	75-80	>80			
Single-Unit, Detached (residential)								(1)	
Multi-Family Residential, (apartment, transient lodging)									
Public Assembly									
Schools and Hospitals			(2)	(2)					
Manufacturing (e.g., petrol/chem, textile)									
Parks							(4)	(4)	
Business Services				(2)	(2)		(3)	(3)	
Agriculture, Forestry, and Mining									

KEY: ■ Compatible ■ Incompatible

NOTES: This generalized land use table provides an overview of recommended land use. To determine specific land use compatibility, see OPNAVINST 11010.36C.

1. Maximum density of 1-2 dwellings per acre.
2. Land use and related structures generally compatible; however, measures to achieve Noise Level Reduction (NLR) 25 or 30 must be incorporated into design and construction of the structures.
3. Maximum floor area ratio that limits people density may apply.
4. Facilities must be low intensity.

Source: Adapted from OPNAVINST 11010.36C, Navy 2008

## Aircraft Stationed at NAS Fort Worth JRB



**F-16C Fighting Falcon** The F-16C Fighting Falcon is a single-engine, supersonic, multi-role tactical aircraft. Though no longer being purchased by the Air Force, improved versions are still being built by Lockheed Martin at Plant 4. The aircraft is highly maneuverable and has proven itself in air-to-air combat and air-to-surface attack. Twenty seven F-16C aircraft are currently stationed at NAS Fort Worth JRB and are assigned to the Air Force's 301st Fighter Wing. In addition, Lockheed Martin F-16C aircraft utilize the runway in conjunction with manufacturing and testing activities.



**C-40A Clipper** The Boeing C-40A flies the Navy Unique Fleet Essential Airlift (NUFEA) mission, providing high-priority cargo and passenger airlift for the Navy fleet worldwide. The C-40A is certified to operate in three configurations: an all-passenger configuration, an all-cargo configuration, and a combination configuration. The Navy's VR-59, a Navy Fleet Logistics Support Squadron, currently operates three C-40As at NAS Fort Worth JRB.



**FA-18 A+ Hornet** The FA-18 Hornet is an all-weather, supersonic aircraft used as an attack aircraft as well as a fighter. In its fighter mode, the FA-18 is primarily used as a fighter escort, for reconnaissance, and for fleet air defense; in its attack mode, the FA-18 is used for force projection, interdiction, and close and deep air support. MAG-41 (VMFA-112) currently operates 12 FA-18A+ Hornets at NAS Fort Worth JRB.



**C-12R Huron** C-12 variants are used by the Air Force, Army, Marine Corps, and Navy. The C-12R variant is an off-the-shelf King Air 2200C for the U.S. Army Reserve and National Guard. These aircraft are used for various duties, including embassy support, medical evacuation, passenger and light cargo transport, and as aerial reconnaissance. Currently, the nine C-12R aircraft stationed at NAS Fort Worth JRB are with the Army (339th Military Intelligence Company).



**F-35 A/B/C Joint Strike Fighter, Lightning II** Lockheed Martin's F-35 has three variants: the conventional takeoff and landing variant (Air Force F-35A), the STOVL variant (Marine Corps F-35B), and a carrier-based variant (Navy F-35C). Lockheed Martin F-35s (all three variants) utilize the NAS Fort Worth JRB runway in conjunction with manufacturing and testing activities.



**C-130 Hercules** The C-130 Hercules primarily performs the intra-theatre portion of the airlift mission. The C-130 can be rapidly configured for various types of cargo, including palletized equipment, floor-loaded material, airdrop platforms, container-delivery-system bundles, vehicles and personnel, or aeromedical evacuation. Currently, the eight C-130 Hercules aircraft stationed at NAS Fort Worth JRB are with the Texas Air National Guard's 136th Airlift Wing.



**KC-130T Hercules** The KC-130 is the basic designation for a family of the extended-range tanker version of the C-130 Hercules transport aircraft modified for aerial refueling. The KC-130T is a multi-role/multi-mission tactical tanker/transport. This versatile asset provides in-flight refueling for tactical aircraft and helicopters, as well as rapid ground refueling, when required. Marine Aerial Refueler Transport Squadron 234 (VMGR 234) currently operates 14 aircraft from NAS Fort Worth JRB.

## Transient Aircraft



**KC-135 Stratotanker** The KC-135 is primarily an aerial refueling military aircraft. However, KC-135 variants serve as flying command posts, pure transport, electronic reconnaissance, and photo-mapping aircraft.



**B-1 Lancer** The B-1 is a long-range, multi-role strategic bomber for the Air Force. This aircraft carries the largest payload in the Air Force's long-range bomber fleet and can rapidly deliver massive quantities of precision and non-precision weapons against any adversary, anywhere in the world, at any time.



**B-52 Stratofortress** The B-52 Stratofortress is a long-range, strategic heavy bomber capable of dropping or launching the widest array of weapons in the U.S. inventory. The B-52 has been in active service with the Air Force since 1955 and is the longest serving bomber in U.S. history. B-52s were stationed at NAS Fort Worth JRB when the base was Carswell AFB. The Air Force continues to rely on the B-52 because it remains an effective and economical heavy bomber used for strategic attack, air interdiction, and offensive counter-air and maritime operations.



**E-3 Sentry (AWACS)** The E-3 Sentry is an airborne warning and control system (AWACS) aircraft that provides all-weather surveillance, command, control, and communications needed by commanders of U.S. and NATO air defense forces. Consoles onboard display computer-processed data in graphic and tabular format on video screens. Console operators perform surveillance, identification, weapons control, battle management, and communications functions. In support of air-to-ground operations, the Sentry can provide direct information needed for interdiction, reconnaissance, airlift, and close-air support for friendly ground forces. It can also provide information for commanders of air operations to gain and maintain control of the air battle.



**FA-18 E/F Super Hornet** The FA-18E/F Super Hornet is an evolutionary redesign of the original FA-18. Compared to the Hornet, the Super Hornet is larger, heavier, and has improved range and payload capability. Two Super Hornet versions—the single-seat E model and the two-seat F model—are in production today and in service with the Navy. The Super Hornet is capable of performing virtually every mission in the tactical spectrum, including air superiority, day/night strike with precision-guided weapons, fighter escort, close air support, suppression of enemy air defenses, maritime strike, reconnaissance, forward air control, and tanker missions. The Super Hornet can operate from either aircraft carriers or land bases.



**T-38 Talon** The T-38 Talon is a two-seat, twin-engine, supersonic jet trainer. The T-38 trainers are primarily used by the Air Force's Air Education and Training Command for joint specialized undergraduate pilot training. Pilots from North Atlantic Treaty Organization (NATO) countries also train on the T-38 at the Sheppard Air Force Base in Texas through the Euro-NATO joint jet pilot training program.



**CH-47D Chinook** The CH-47D is a long-distance, heavy-lift, special operations, rotary-wing aircraft. It is equipped with aerial refueling capability, a fast-rope rappelling system, and other upgrades or operations-specific equipment. The CH-47D's primary mission is to move troops, artillery, ammunition, fuel, water, barrier materials, supplies, and equipment on the battlefield. This aircraft is periodically stationed at NAS Fort Worth JRB on a temporary basis for maintenance with the U.S. Army Reserve, B Company, 90th Aviation Support Battalion.



**H-60 and Variants** The H-60 is a twin-engine, four-bladed, single-rotor aircraft. The H-60 comes in many variants, including the UH-60A/L Blackhawk, the SH-60B/F Seahawk, the MH-60R/S Multi-Mission Helicopter, and the HH-60H Jayhawk. The UH-60A/L Blackhawk is the primary H-60 version stationed at NAS Fort Worth JRB with the Army tenant. This aircraft is periodically stationed at NAS Fort Worth JRB on a temporary basis for maintenance with the U.S. Army Reserve, B Company, 90th Aviation Support Battalion.



**AH-64D Apache** The AH-64D Apache is a four-blade, rotary-wing, twin-engine, attack aircraft with a tandem cockpit for a crew of two. The multi-mission AH-64D Apache Longbow is the next generation of the original AH-64A Apache. This aircraft is periodically stationed at NAS Fort Worth JRB on a temporary basis for maintenance with the U.S. Army Reserve, B Company, 90th Aviation Support Battalion.

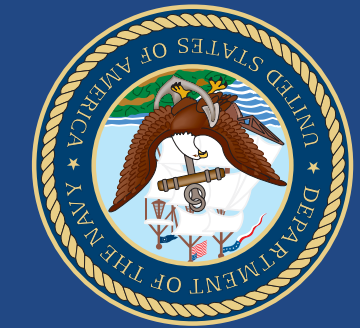
## For Further Information:

NAS Fort Worth JRB:  
Community Plans and Liaison Officer/  
Aircraft Operations Information  
(817) 782-7609

Written inquiries and correspondence should be sent to:  
NAS Fort Worth JRB  
Attn: Community Plans and Liaison Officer  
1510 Chennault Ave  
Fort Worth, TX 76127

Installation Website:  
[www.cnic.navy.mil/fortworth](http://www.cnic.navy.mil/fortworth)














2013



Brochure for  
Joint Land Use  
Study (JLUS)  
Naval Air Station (NAS)  
Fort Worth  
Joint Reserve Base (JRB)  
Fort Worth, Tarrant County, Texas

**NAS Fort Worth JRB** typically conducts flight operations daily from 7:00 a.m. to 11:00 p.m., with occasional operations conducted outside of published hours to accommodate mission requirements. Extenuating circumstances can result in extended operation hours, open days, or temporary suspension of operations.

**NAS Fort Worth JRB Accident Potential Zones and Noise Contours**

-  Airport
-  Park
-  Colonel Stone Army Reserve Center
-  Urban Area
-  Major Road
-  Noise Contour (dB DNL)
-  Installation Boundary
-  Lockheed Martin Boundary
-  Accident Potential Zones
-  Clear Zone
-  APZ I
-  APZ II
-  Waterbody

**Note:**  
Refer to "Noise Zones" on reverse for an explanation of DNL.

**Source, NAS Fort Worth JRB:**  
U.S. Department of Defense, Office of Economic Adjustment, Joint Land Use Study, Naval Air Station Fort Worth Joint Reserve Base, March 2008.

