WELCOME PACKET: INFORMATION FOR THE COMMUNITIES AROUND NAS JRB FORT WORTH: TECHNICAL MEMO

JOINING FORCES
NORTH TEXAS

WELCOME PACKET: INFORMATION FOR THE COMMUNITIES AROUND NAS JRB FORT WORTH

APRIL 2024

INTRODUCTION

A key recommendation from the 2018 Joint Land Use Study was the preparation and distribution of a "'welcome packet' with information on the base's background, mission, and operations for incoming residents to promote an understanding of operations and potential impacts as neighborhoods transition and redevelop." The NAS JRB Fort Worth Regional Coordination Committee (RCC) identified this as a critical need for the communities around NAS JRB Fort Worth and directed North Central Texas Council of Governments staff to work closely with municipal staff and the base's Community Planning Liaison Officer (CPLO) to develop and distribute a welcome packet that would help new residents and businesses understand the benefits and challenges of living near a military installation and understand ways the base and municipalities seek to address residents' concerns.

DEVELOPMENT

NCTCOG staff worked with the CPLO to draft the primary information brochure for the welcome packet in fall 2021. The base provided historical background and photographs and reviewed the final draft. A branded folder was also designed to hold this primary brochure and additional brochures of interest created through previous efforts. J'Nell L. Pate's comprehensive history of the military presence in Tarrant County, *Arsenal of Defense: Fort Worth's Military Legacy*, was also an invaluable resource for information about the base's background.

The welcome packet and folder were presented to the RCC Technical Subcommittee for review at their January 2022 meeting. (As discussed in another white paper, the Technical Subcommittee is NCTCOG's primary venue for coordination with municipal staff.) At this meeting, it was determined that all residents living near NAS JRB Fort Worth would benefit from education about the base, the RCC, and the resources to be included in the welcome packet; therefore, the subcommittee directed NCTCOG to rethink elements of the primary brochure for this broadening of the welcome packet's intended audience. Furthermore, although the subcommittee affirmed the importance of distributing a print version of the welcome packet, they also directed staff to prepare digital versions in English, Spanish and Vietnamese. Subcommittee members provided additional feedback on this draft throughout spring 2022, during which time NCTCOG shifted their focus to other JLUS tasks.

"IT WAS DETERMINED THAT ALL RESIDENTS LIVING NEAR NAS JRB FORT WORTH WOULD BENEFIT FROM EDUCATION ABOUT THE BASE, THE RCC, AND THE RESOURCES TO BE INCLUDED IN THE WELCOME PACKET"

NCTCOG presented a revised print version of the eight-page primary information brochure at the subcommittee's March 2023 meeting. Feedback was reflected in the following changes: refreshed layout and design, more photos and maps to add visual interest, darker font throughout, additional information about the noise contours and safety zones, and updated economic impact statistics. The folder was also renamed "Get to Know NAS JRB Fort Worth" to reflect the broader audience. The subcommittee then asked staff to present the revised welcome packet concept to the RCC, along with print and web versions of the primary brochure and a proposed distribution plan, at their April meeting. It was also determined that NCTCOG should work with the CPLO to prepare an additional information piece about how UAS operators can safely fly in the base's airspace. At its April meeting, the RCC approved a final draft of the brochure for print. NCTCOG then worked with the Technical Subcommittee to refine the distribution plan at their June 2023 meeting.

Print and web versions of the primary brochure were finalized and procured during the summer (including translations into Spanish and Vietnamese). Work on the UAS information piece was delayed while NAS JRB Fort Worth awaited word about whether a new UAS flight authorization system (LAANC) would be implemented by the Federal Aviation Administration. It was determined in October 2023 that FAA did not have a clear timeline for implementing LAANC, so a double-sided flyer explaining the current UAS flight authorization system was drafted in coordination with the CPLO.

All materials, including the UAS flyer, were placed online following the October RCC meeting, and the final print version of the welcome packet was provided to municipal staff at the January 2024 RCC meeting. In late January, the FAA unexpectedly deployed the LAANC system in NAS JRB Fort Worth's airspace, so the UAS flyer was substantially revised in spring 2024.

CONTENTS

The final print version of the welcome packet contains the following items:

- **Get to Know Naval Air Station Joint Reserve Base Fort Worth** (**Appendix 1**): Folder created through this JLUS Implementation Grant.
- **Get to Know NAS JRB Fort Worth** (**Appendix 2**): Primary information brochure created through this JLUS Implementation Grant. The following topics are addressed:

- NAS JRB Fort Worth: Past and Present
- Base Economic Impact
- Sound Mitigation Efforts
- Air Installation Compatible Use Zones
- Regional Coordination Committee Mission
- RCC Meetings
- RCC Membership
- Planning and Zoning Ordinances
- RCC Development Review Tool
- Department of Defense Coordination
- Unmanned Aircraft Systems
- Resources and Contact Information

- **How to Fly Your Drone Around NAS JRB Fort Worth** (**Appendix 3**): Flyer created through this JLUS Implementation Grant to provide instruction to UAS operators about how to fly safely in the base's airspace. Updated in April 2024 to reflect FAA deployment of the LAANC flight authorization system.
- **Mission: Compatible Regional Growth** (**Appendix 4**): Brochure previously created by NCTCOG to educate the public about the 2008 JLUS. This brochure features several maps showing the safety zones and noise contours from the AICUZ.
- **2013 Joint Land Use Study for Naval Air Station Fort Worth Joint Reserve Base** (**Appendix 5**): Brochure previously created by NCTCOG to educate the public about the 2008 JLUS.
- **JLUS Planning Map** (**Appendix 6**): Large foldout brochure previously created by NAS JRB Fort Worth in 2013 to educate the public about the 2008 JLUS. This brochure has a large map and features extensive information about the different aircraft that fly out of NAS JRB Fort Worth.
- **Joining Forces: Aligning Community & Military Missions** (**Appendix 7**): Brochure previously created by NCTCOG in 2021 to educate the public about the 2018 Regional JLUS.
- **Public Comment Form** (**Appendix 8**): Form with instructions for providing a public comment to NCTCOG staff. This form is not part of the web version since staff contact information is provided on the website.

In addition, a web version of the primary information brochure is available online in English, Spanish and Vietnamese at https://www.nctcog.org/rccinfo. This version contains numerous hyperlinks to the resources mentioned in the print version as well as PDF versions of the UAS flyer and additional print brochures included in the folder. The web version was re-titled "NAS JRB Fort Worth Defense Community Information" to avoid confusion about whether the webpage was owned by NAS JRB Fort Worth.

DISTRIBUTION

Folders with the full contents outlined above were provided to six of the seven member cities for

distribution at their municipal offices. The City of Sansom Park did not request print versions for distribution. In addition, NCTCOG designed and procured postcards (**Appendix 9**) and water bill inserts (**Appendix 10**) with QR codes so all of the RCC members could notify their residents about the availability of this information. A newsletter article and social media content were also provided (**Appendix 11**). Benbrook and White Settlement mailed the water bill insert to every account holder in their cities. NCTCOG also ordered additional items for distribution at future RCC meetings and events. The following print items were ordered and distributed at the January 2024 RCC meeting:

Entity	Welcome Brochures	Folder	UAS one-pager	Postcard	Water bill insert
NCTCOG	100	100	100	100	0
Benbrook	100	100	100	0	7,300
Fort Worth	100	100	100	50	50
Lake Worth	100	100	100	50	0
River Oaks	100	100	100	100	100
Westworth Village	100	100	100	0	800
White Settlement	100	100	100	100	6,900
TOTAL:	**700**	**700**	**700**	**400**	**15,150**

NEXT STEPS

NCTCOG has received three noise complaints since launching the web version of the primary information brochure in fall 2023. NCTCOG staff acknowledge every comment received and share all comments about base operations with the CPLO and RCC. NCTCOG will continue to coordinate with the base to maintain an updated web version. The City of River Oaks has expressed interest in ordering more water bill inserts so it can notify all account holders. NCTCOG staff will consult with the RCC Technical Subcommittee to determine if funding for additional print items should be requested as part of a subsequent JLUS Implementation Grant.

WELCOME PACKET: INFORMATION FOR THE COMMUNITIES AROUND NAS JRB FORT WORTH: APPENDIX 1

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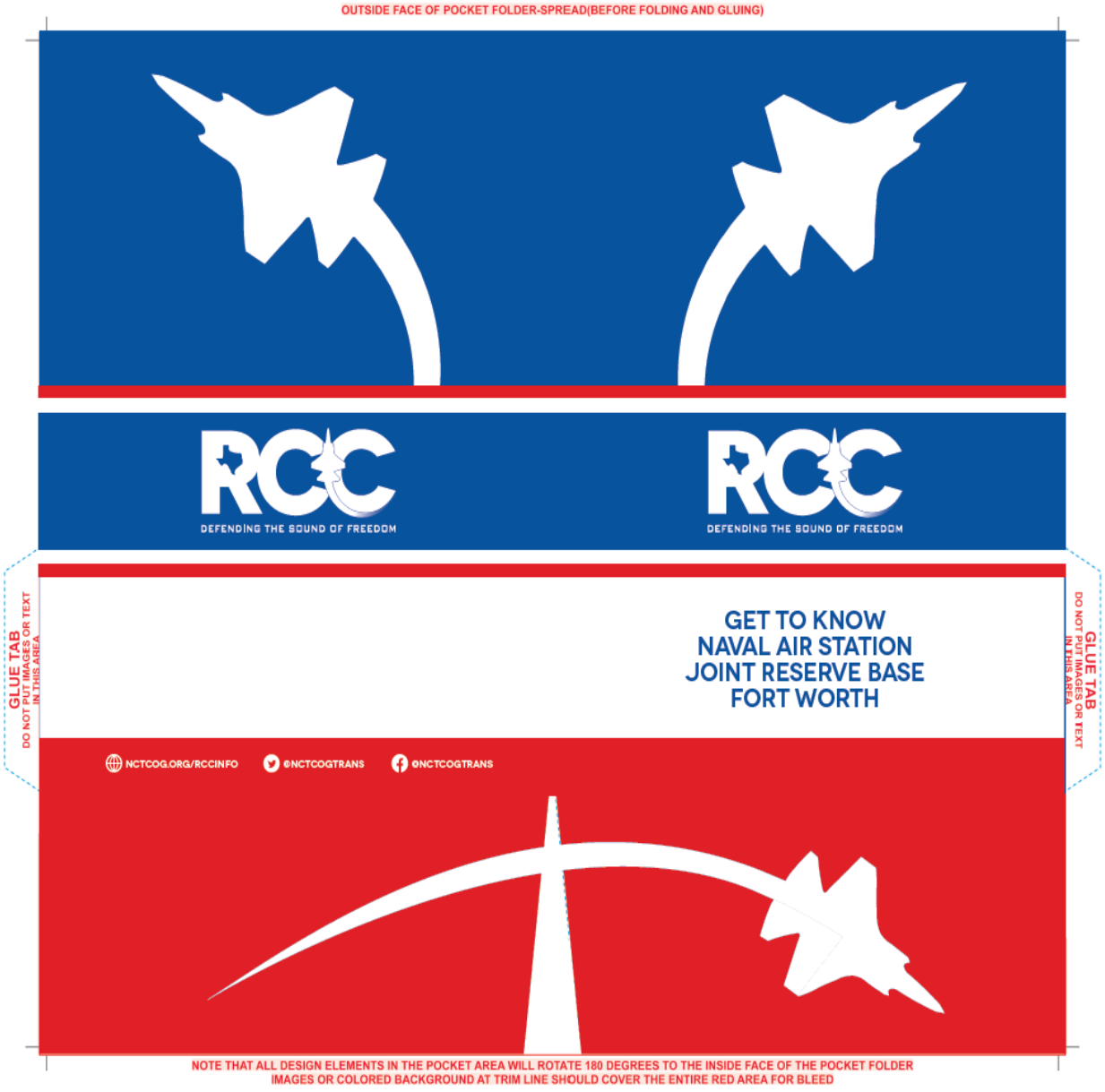
FOLDER



WELCOME PACKET: INFORMATION FOR THE COMMUNITIES AROUND NAS JRB FORT WORTH: APPENDIX 2

GET TO KNOW NAS JRB FORT WORTH

GET TO KNOW NAS JRB FORT WORTH

NAS JRB FORT WORTH: PAST AND PRESENT[1]

The military presence in Tarrant County goes back to the nineteenth century, and the aviation sector here goes back to World War I when the county hosted three airfields for flight training. However, the military installation currently known as Naval Air Station Joint Reserve Base Fort Worth was first established during World War II as an airfield adjoining a bomber factory near Lake Worth and eventually became known as the Fort Worth Army Air Field.

Unlike many World War II-era military installations, Fort Worth Army Air Field remained open after the war. The U.S. Air Force was officially established as a separate branch of the military in 1947, and in 1948, the Fort Worth Army Air Field became Carswell Air Force Base. The base was named to honor the memory of Major Horace S. Carswell, Jr., a Fort Worth native who gave his life attempting to pilot his damaged B-24 to safety after a bombing run. For "a supreme effort to save all members of his crew," Major Carswell was awarded a posthumous Medal of Honor. To this day, longtime North Texas residents will refer to the base as "Carswell Field."

Beginning in 1988, the United States Department of Defense has pursued a policy of increasing the efficiency of its post-Cold War operations through a process known as Base Realignment and Closure (BRAC). Carswell Air Force Base was selected for BRAC in 1991. As a result, the base was transferred to the U.S. Navy in 1994 and became the first joint reserve base in the country.

Currently, NAS JRB Fort Worth is home to a variety of Navy, Marine Corps, Air Force, Army and Texas Air National Guard units—approximately 40 separate commands—with more than 10,000 active duty military, Guardsmen, Reservists, and civilian employees working to support national defense goals and the local community.

[1] Information in this section comes from J'Nell L. Pate's book *Arsenal of Defense: Fort Worth's Military Legacy*, an excellent resource for those interested in the area's military history.

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BASE IMPACT

ECONOMIC IMPACT

NAS JRB Fort Worth is just one facet of Tarrant County's thriving defense sector: Lockheed Martin, Bell, L3Harris and Raytheon all operate facilities locally and maintain a footprint in North Texas. Lockheed Martin, one of Tarrant County's largest employers, operates an aircraft manufacturing plant adjoining the base. Accordingly, defense spending is a significant contributor to the local, regional and state economies. This investment reflects the military's respect for the people, businesses and civic leadership of Tarrant County.

15,164 PEOPLE EMPLOYED
directly and indirectly as a result of NAS JRB Fort Worth[2]

$516.3 M IN DEFENSE PERSONNEL
spending in Tarrant County[3]

$2.7 B IN ECONOMIC VALUE
as a result of NAS JRB Fort Worth operations[2]

$12.0 B IN DEFENSE CONTRACT SPENDING
in Tarrant County, the fourth highest in the country[3]

TEXAS RANKED THIRD
among states for defense contract spending[3]

TEXAS RANKED THIRD
among states for defense personnel numbers and personnel spending[3]

[2] Texas Military Preparedness Commission, Biennial Report, 2021-2022

[3] U.S. Department of Defense, Office of Local Defense Community Cooperation, FY 2021 Defense Spending by State

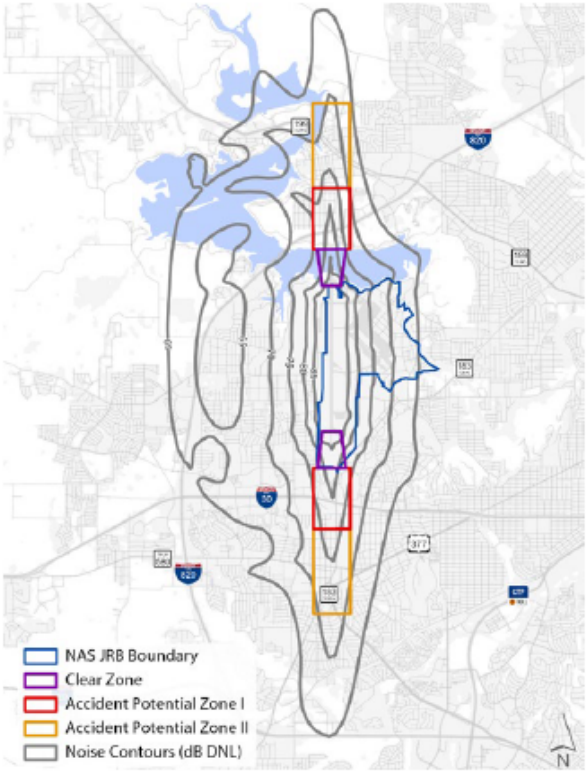
SOUND MITIGATION EFFORTS

Over the years, several thriving communities have grown up around NAS JRB Fort Worth, which has made avoiding, minimizing and reducing noise a priority for the base. US Navy guidelines have specific sound attenuation recommendations that NAS JRB Fort Worth actively pursues. Noise abatement procedures apply to flight operations and engine run-up and maintenance operations conducted on base. NAS JRB Fort Worth implements these procedures under the NAS JRB Fort Worth Air Ops Manual. For example, aircrews are instructed to avoid low-altitude flight over populated areas whenever possible, and local flight procedures are regularly reviewed to balance safety, mission effectiveness and noise impacts. Other measures include base staff maintaining open lines of communication with municipal staff and community leaders to develop and implement noise abatement procedures when possible.

The Department of Defense (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. 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. On the map, the DNL is depicted visually as noise contours showing zones of 65, 70, 75 and 80 decibels.

SAFETY ZONES

The DOD identifies safety zones as areas where an aircraft accident is most likely to occur in the vicinity of airfields. The DOD provides accident potential zones (APZ) as a planning tool to assist municipalities with land use planning and future community development. The DOD defines three safety zones—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.



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BASE AND COMMUNITY COORDINATION

REGIONAL COORDINATION COMMITTEE

NAS JRB Fort Worth and community leaders recognize the need for a positive and mutually beneficial relationship between the base and surrounding cities. A 2008 study recommended the formation of a cooperative forum for developing and implementing programs and policies to help the base and surrounding communities thrive together. Therefore, the NAS JRB Fort Worth Regional Coordination Committee (RCC) was established as an initiative of seven surrounding cities in conjunction with Tarrant County.

Over the past several decades, the Dallas-Fort Worth area has experienced rapid growth, with a population estimated at 8 million people. Local community leaders understand that encroachment from urban development may have a long-term effect on the base's ability to sustain its military training mission. Encroachment occurs when conditions outside a military installation limit the ability of the military to perform its mission safely and effectively, or when military operations diminish the quality of life in surrounding areas.

Therefore, the RCC's mission is two-fold:

1. **Serve as a forum for dialogue between the base and the surrounding communities to implement recommendations from studies and plans related to compatible development, livability and public engagement.**

2. **Provide support for the base and members of the military to preserve NAS JRB Fort Worth as a strategic military asset and to enhance the economy and quality of life in the surrounding communities.**

RCC

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MEETINGS

The RCC meets quarterly to discuss base operations, new developments, transportation and infrastructure, municipal plans and policies, legislative actions and other items affecting the local community. Meetings are open to the public and occur on the fourth Monday of January and third Mondays of April, July, and October at 1:30 pm. The location rotates among the voting entities. Time for public comments is reserved at the end of every meeting.

MEMBERSHIP

The RCC is comprised of eight voting entities: the cities of Benbrook, Fort Worth, Lake Worth, River Oaks, Sansom Park, Westworth Village, and White Settlement as well as Tarrant County. Each entity may place two members on the RCC. NAS JRB Fort Worth participates as a non-voting member and provides regular briefings to the committee. The North Central Texas Council of Governments (NCTCOG), a regional planning agency, provides staff and administrative support to the RCC. In addition, the following non-voting entities also participate in RCC meetings and activities:

Chambers of Commerce
Department of Defense, Office of Local Defense Community Cooperation
Lockheed Martin Corporation
Local and State transportation agencies
NAS JRB Fort Worth
Realtor associations
School districts
State and Federal legislative offices
Tarrant Regional Water District
Texas military commissions and committees

Please feel free to contact your city or county RCC member with any questions or concerns about base operations.

DEFENDING THE SOUND OF FREEDOM

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COMMUNITY TOOLS

PLANNING AND ZONING

State law determines many of the strategies available to local governments seeking to promote compatibility around military installations. Zoning is a common mechanism for reducing conflicts by controlling the intensity or type of development near military operations. The voting entities of the Regional Coordination Committee have adopted municipal zoning measures to regulate the types of development permitted near NAS JRB Fort Worth. To ensure compatible land uses, these zoning tools may recommend limits on the height of certain structures in a flightpath or recommend sound mitigation, such as insulation or types of windows and doors, in certain types of developments.

For example, Fort Worth has adopted an Airport Overlay District and Compatible Use Zone sub-districts for land located north and south of the base that the Department of Defense has determined is at risk if a plane crashes during takeoff or landing. Depending on the location, these districts may prohibit all development, or they may simply discourage certain types of dense residential development or education facilities.

RCC DEVELOPMENT REVIEW TOOL

To help facilitate early consideration of proposed developments near NAS JRB Fort Worth, the RCC maintains an online Development Review Tool. The system is a clearinghouse to discuss various project types, including zoning changes, height obstructions and site plans. City and county staff are able to enter proposed planning and zoning cases into the tool and receive feedback from the base, the North Central Texas Council of Governments (NCTCOG) and other RCC members about whether a development project poses a compatibility concern. These discussions are assisted by compatible land use guidelines prepared by the U.S. Department of Defense. Members of the public may view the proposed projects as well.

RCC

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DEPARTMENT OF DEFENSE COORDINATION

The RCC and NCTCOG regularly coordinate with the Department of Defense through its Office of Local Defense Community Cooperation on opportunities to address compatibility issues in the community. This coordination has led to two Joint Land Use Studies since 2006. These studies are collaborative processes among local governments, military installations, citizens and other stakeholders to identify, address and help prevent encroachment issues that may affect current and future military missions and nearby communities. Through these studies, NCTCOG has sought to involve the public through meetings and interviews to ensure the community has a voice in planning and compatibility decisions.

UNMANNED AIRCRAFT SYSTEMS (UAS)

The availability of smaller, affordable UAS (or drones) has spurred the rapid growth of commercial and hobbyist activities. UAS can create physical hazards, such as midair strikes with aircraft, or pose security and safety threats by flying near military personnel or over sensitive operational areas. Being a good neighbor to NAS JRB Fort Worth means exercising good judgment when flying UAS and following all laws and Federal Aviation Administration rules and regulations for UAS. In the past, NCTCOG's North Texas UAS Safety and Integration Task Force has provided regular Know Before You Fly workshops to teach UAS users about how to fly their UAS safely. The task force continues to meet and work on initiatives to educate the community. Learn more about the UAS Safety and Integration Initiative at www.NorthTexasUAS.com.

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RESOURCES AND CONTACT INFORMATION

NAVAL AIR STATION JOINT RESERVE BASE FORT WORTH

Homepage: cnrse.cnic.navy.mil/Installations/NAS-JRB-Fort-Worth
Community Planning Liaison Officer: Amelia Owre, amelia.t.owre.civ@us.navy.mil
Facebook: facebook.com/NASJRBFortWorth

NAS JRB FORT WORTH REGIONAL COORDINATION COMMITTEE

Current membership roster, bylaws, meeting agendas, minutes and presentations: nctcog.org/RCC
RCC Development Review Tool: publicinput.com/rcctool

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

Email: transinfo@nctcog.org
Phone Number: 817-695-9240
Facebook: facebook.com/nctcogtrans
Twitter: twitter.com/nctcogtrans

MILITARY–COMMUNITY PLANNING AT NCTCOG

The military-community planning program at NCTCOG seeks to facilitate a dialogue around common interests and strengthen compatibility among local governments, community members and military installations through communication, education and the planning process.
Reports, past studies and other resources: nctcog.org/jlus
Joint Land Use Study: joiningforcesntx.org

UNMANNED AIRCRAFT SYSTEMS

North Texas UAS Safety and Integration Task Force: nctcog.org/trans/plan/aviation/uas
UAS Safety and Integration Initiative: northtexasuas.com

STATE AND NATIONAL RESOURCES

Department of Defense, Office of Local Defense Community Cooperation: oldcc.gov
Texas Military Department: tmd.texas.gov
Association of Defense Communities: defensecommunities.org

North Central Texas Council of Governments

Imagery provided by:
NAS JRB Fort Worth and GETTY Images
Produced September 2023

WELCOME PACKET: INFORMATION FOR THE COMMUNITIES AROUND NAS JRB FORT WORTH: APPENDIX 3

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UAS FLYER

HOW TO FLY YOUR DRONE AROUND NAS JRB FORT WORTH

The Naval Air Station Joint Reserve Base Fort Worth (NAS JRB Fort Worth) currently tracks an increasing number of unauthorized drone operations per month in the Class D airspace surrounding the base. These unauthorized flights present a significant danger to manned aircraft, especially those with only one engine. Many flights taking off and landing at the base are single-engine F-16s, F-35s or training aircraft, and military planes have already had to maneuver twice to avoid close contact with a drone.

1. TESTING AND CERTIFICATION

All recreational and commercial drone operators must pass a free, online knowledge and safety test called The Recreational UAS Safety Test (TRUST) before flying. This test can be taken as many times as needed until passed.

Commercial operators must also take an in-person exam at a Federal Aviation Administration (FAA) testing center. After passing this test, operators receive FAA Remote Pilot certification, which allows them to operate under the Part 107 regulations that govern commercial drone pilots.

2. REGISTRATION

A drone weighing more than 0.55 pounds must be registered with the FAA and display a current FAA registration on its body. To register your drone, create an account on the DroneZone website: faadronezone-access.faa.gov. Operators must also carry proof of registration when flying.

3. AUTHORIZATION

Operators must have FAA authorization in order to fly in controlled airspace. Authorization to fly in the controlled airspace surrounding NAS JRB Fort Worth can be obtained using the FAA's automated LAANC system. The LAANC system can be accessed via one of the public service providers listed to the right.

PUBLIC SERVICE PROVIDERS

- AirMatrix
- Airspace Link
- Aloft
- AstraUTM
- Avision
- Botlink
- eTT Aviation
- FlightReady
- UASidekick

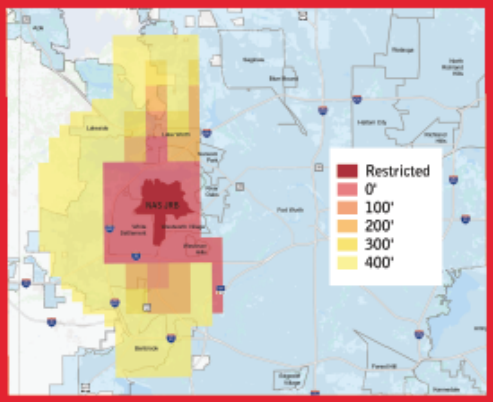
Operators must also ensure they fly at or below the altitude limit indicated in the FAA authorization. These limits vary depending on the operator's location (see map below).

AIRSPACE APPROVAL PROCESS FOR NAS JRB FORT WORTH

To fly a drone in NAS JRB Fort Worth's Class D Airspace, you must submit a request for airspace authorization via the FAA's automated LAANC system. LAANC provides near-real time authorizations for operations within pre-approved altitude limits. Further coordination requests can be made to fly above pre-approved altitudes as long as the operation is under 400 feet. These requests must be:

- Submitted at least 72 hours in advance
- Reviewed and approved by an Air Traffic Manager for the controlled airspace.

In order to operate within the 0' altitude area around NAS JRB Fort Worth (light red), a further coordination request must be submitted. These requests are only available to commercial Part 107 certified operators. Recreational operators may not operate within the 0' altitude area.



UAS Altitude Limits Within
NAS JRB Fort Worth Controlled Airspace

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FLIGHT PLANNING RESOURCE

Download one of the four FAA-approved B4UFly apps to determine if it is safe to fly in a particular location. These apps provide information about controlled airspace, special use airspace, critical infrastructure, airports, national parks, military training routes and temporary flight restrictions for the entire United States.

REMOTE ID

All drone pilots required to register their UAS must operate in accordance with the Remote ID rule. Remote ID acts like a digital license plate, so the drone broadcasts its ID and location information in flight. Remote ID helps the FAA, law enforcement and other federal agencies locate the control station when a drone appears to be flying in an unsafe manner or in airspace where it is not allowed to fly.

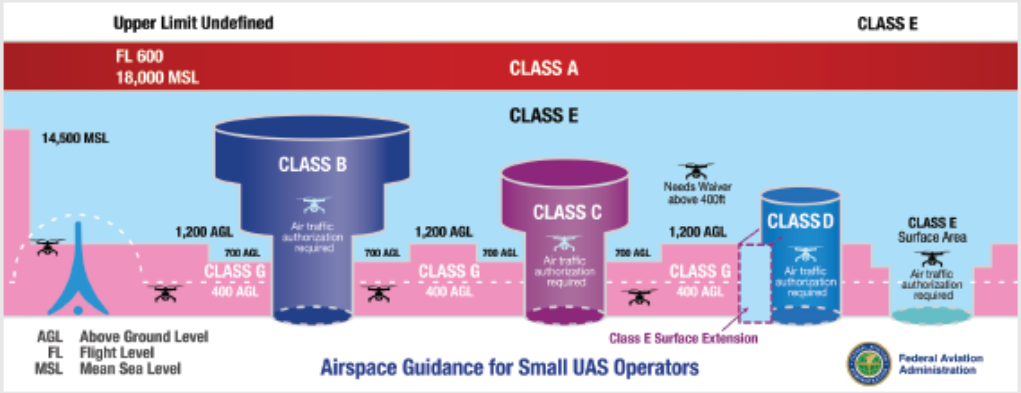
There are three ways drone pilots can meet the requirements of Remote ID:

1. Operate a Remote ID drone manufactured with built-in Remote ID broadcast capabilities.
2. Operate a drone retrofitted with an aftermarket Remote ID broadcast module.
3. Operate a drone without Remote ID capabilities only in an FAA-recognized identification area (FRIA).

FAA'S RULES FOR RECREATIONAL OPERATORS

Source: https://www.faa.gov/uas/recreational_flyers

1. Fly only for recreational purposes (personal enjoyment).
2. Follow the safety guidelines of an FAA-recognized Community Based Organization (CBO).
3. Keep your drone within the visual line of sight or use a visual observer who is co-located (physically next to) and in direct communication with you.
4. Give way to and do not interfere with other aircraft.
5. Fly at or below FAA-authorized altitudes in controlled airspace (Class B, C, D, and surface Class E designated for an airport) only with prior FAA authorization by using LAANC or DroneZone.
6. Fly at or below 400 feet in Class G (uncontrolled) airspace.
   Note: Flying drones in restricted airspace is not allowed. Drone pilots should always check for airspace restrictions prior to flight on a B4UFLY app or the UAS Facility Maps webpage.
7. Take The Recreational UAS Safety Test (TRUST) and carry proof of test passage when flying.
8. Have a current FAA registration, mark your drones on the outside with the registration number, and carry proof of registration with you when flying.
9. Do not operate your drone in a manner that endangers the safety of the national airspace system.



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WELCOME PACKET: INFORMATION FOR THE COMMUNITIES AROUND NAS JRB FORT WORTH: APPENDIX 4

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MISSION COMPATIBLE REGIONAL GROWTH

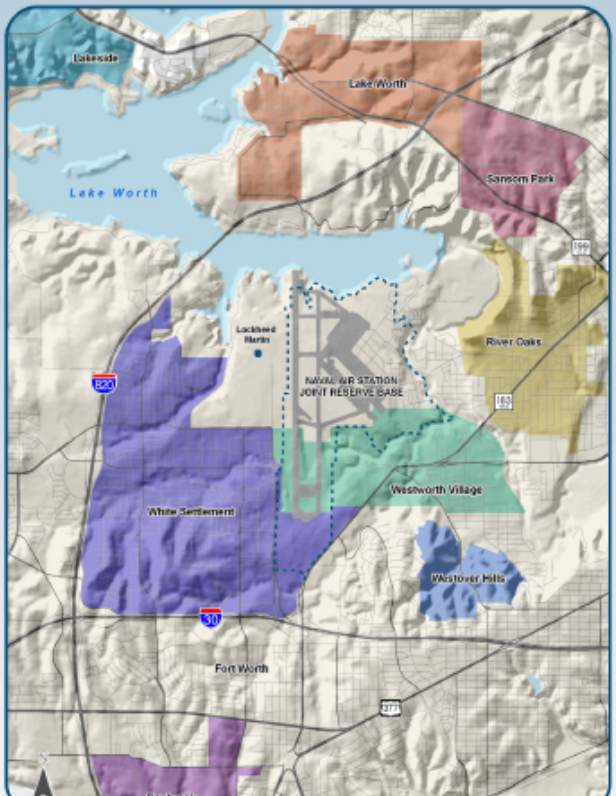
Mission: Compatible Regional Growth

Naval Air Station Fort Worth, Joint Reserve Base (NAS Fort Worth, JRB) Fort Worth, Texas

The Naval Air Station Fort Worth, Joint Reserve Base (NAS Fort Worth, JRB) is located on the site of the former Carswell Air Force Base in Tarrant County, Texas, and has been a military installation since 1941. NAS Fort Worth, JRB is home to U.S. Navy, U.S. Air Force, U.S. Army, U.S. Marine Corps and Texas Air National Guard units - employing over 11,000 Active Duty, Reserve, and civilian personnel. Over time, NAS Fort Worth, JRB has transformed from a Strategic Air Command base operating B-52 bombers to a multifaceted reserve base that supports aircraft such as the F/A-18, C-130, and F-16. The mission of NAS Fort Worth, JRB is to provide support to ensure that the Reserve force is ready to serve at home and abroad.

NAS Fort Worth, JRB provides quality training for Active Duty, Guard, and Reserve components for all branches of the Armed Forces

NAS Fort Worth, JRB is centrally located in the United States making it a strategic center for military operations. Because of the installation's location, it serves as a hurricane evacuation site for military families and aircraft throughout the United States. NAS Fort Worth, JRB provides services for Active Duty, Guard, and Reserve as well as the more than 150,000 retired military personnel throughout the region. The installation is also important to the local economy, providing an annual economic impact of approximately $1.3 billion. In addition, Lockheed Martin, which is currently producing the F-16 Fighting Falcon and F-35 Joint Strike Fighter, is adjacent to the base and employs 14,500 people. Preservation of this unique facility is important to the region's economy and to national defense.



NAS Fort Worth, JRB's Location in North Central Texas Source: NCTCOG

The Joint Land Use Study is a Department of Defense program that encourages military installations and nearby local governments to explore development options that allow them to coexist through compatible development and community education efforts

Maintaining Compatible Community Growth

Development is drawn to the areas surrounding military installations because these facilities require a variety of services to support operations and personnel. However, some development may not be compatible with the mission of the installation, and it can affect the way in which the facility operates, bringing nearby communities into conflict with military facilities.

Recognizing development pressure surrounding NAS Fort Worth, JRB, a Joint Land Use Study (JLUS) was initiated in 2006 to identify actions needed to enable the base to continue its mission while allowing the surrounding communities to grow compatibly. The study was completed in 2008 with input from communities, local chambers of commerce, the Department of Defense (DOD), Lockheed Martin, and the North Central Texas Council of Governments (NCTCOG). The partnership formed during the study resulted in the identification of actions that can be taken by the community and installation to promote the compatibility of current and future development.

Military Installations and the Community

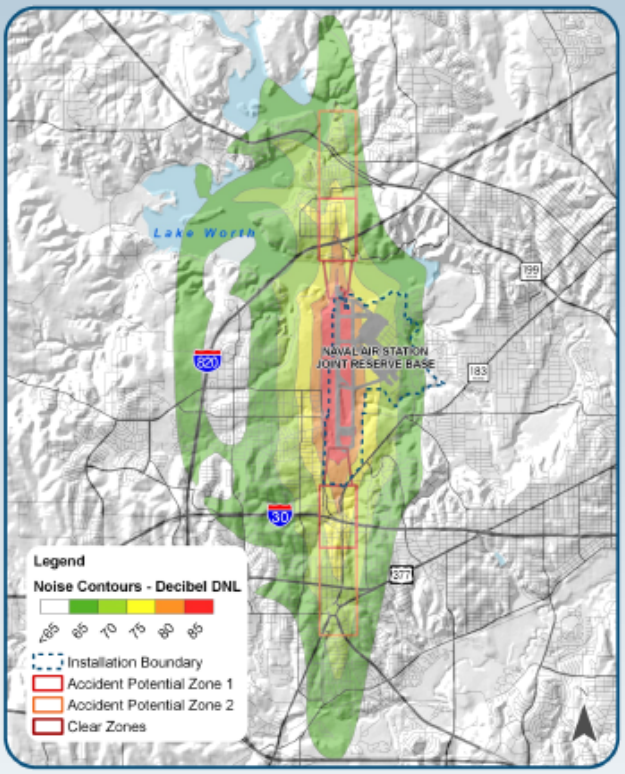
Safety

Safety is a concern around military installations both for members of the Armed Forces who are training for readiness and for those who live close to these facilities.

The Department of Defense established the Air Installation Compatible Use Zone (AICUZ) program to balance the needs of military and aircraft operations with the quality of life for surrounding communities. AICUZ guidelines define zones of high noise and accident potential and recommend compatible land uses within these zones.

The AICUZ program defines Clear and Accident Potential Zones as a land use tool for local planning agencies. To establish these zones, the Department of Defense compiled and analyzed crash data from all military airfields. The data showed that accidents occur in three distinct areas. Based on these findings, three zones were created: the Clear Zone (CZ), Accident Potential Zone I (APZ I), and Accident Potential Zone II (APZ II). These are standardized zones used for all military airfields and are not specific to NAS Fort Worth, JRB.

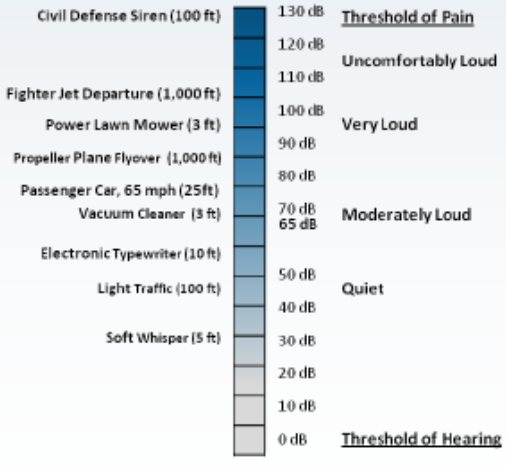
The Accident Potential Zones extend from the ends of each runway and define areas where the potential for an accident is greatest. The probability of an incident decreases farther away from the runway. It is important that land uses within these zones are compatible with aircraft operations and potential hazards associated with base operations.



Noise Contours Surrounding NAS Fort Worth, JRB Source: NCTCOG

Common Noise Sources

Noise Source at a Given Distance



Noise

Noise is considered any sound that is undesirable or that interferes with general hearing. A common negative effect associated with airfields is the noise created by flight operations. Overexposure to sound can have a negative impact on the communities that surround airfields. AICUZ defines zones of high noise based on typical flight operations at a specific facility and recommends land uses that are compatible with each of the defined zones.

While noise is typically a perceived event, sound can be objectively measured. Sound is measured in decibels (dB). The Federal Aviation Administration (FAA) and the DOD have developed a standard to measure sound associated with military airfields and recommendations for development within various noise levels.

When determining the noise impact on communities caused by flight operations, a day-night average sound level (DNL) is used. DNL represents average sound level over a 24-hour period. The DNL includes factors such as the change in sound levels for a specific event, weather, and how the time of day affects the perceived noise level. This calculation provides an assessment of the actual sound impacts of flight operations in a community.

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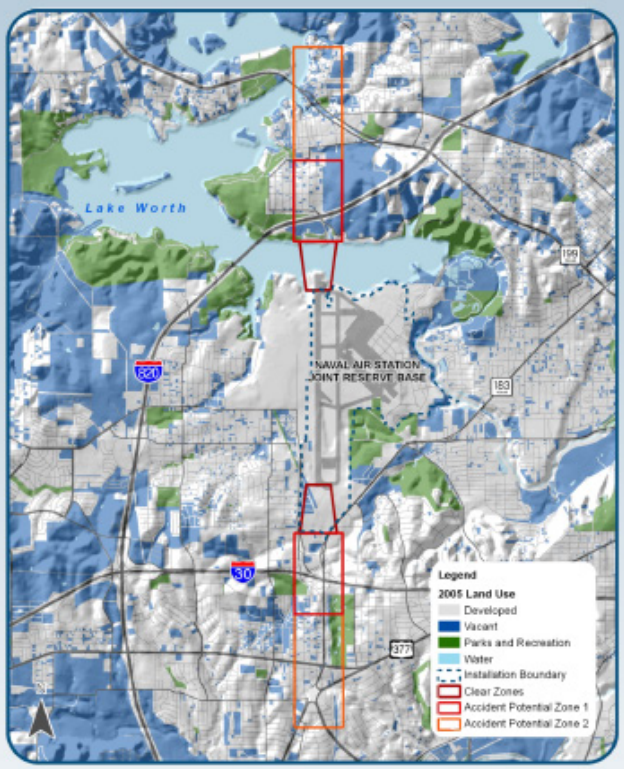
NORTH TEXAS

Compatible Land Use



2005 Land Use Surrounding NAS Fort Worth, JRB Source: NCTCOG

Compatible Land Use

Land use refers to the primary function of a parcel of land. General land use categories include residential, industrial, commercial, and agricultural. Local governments keep records of existing and planned land uses within their jurisdictions to guide growth and development.

Land use near a military installation can complement or compromise the utility and effectiveness of the installation and its mission. Incompatible development can force reduced hours of operation and changes in training capacity of the facility, reducing the overall effectiveness of the installation. Incompatible development can also affect the residents around the installation by placing them in high-noise or high-accident potential areas. The noise associated with the operations of the installation can be a nuisance to residents, and building in specific zones can create a potential safety hazard. People-intensive and noise-sensitive development should be avoided in certain areas. Compatible land use has the potential to impact the safety and quality of life for residents and to enhance the long-term viability of the base by ensuring compatibility with the community.

The NAS Fort Worth, JRB Joint Land Use Study found that safety, height hazards, noise, and communication were areas of concern

Land Use Compatibility Example

	Noise Zones				Accident Potential Zones		
Example Land Uses	< 65 DNL	65-70 DNL	70-75 DNL	>75 DNL	APZ II	APZ I	Clear Zone
Single Family Residential	●	◔	◔	⊘	◑	⊘	⊘
Neighborhood Parks	●	●	●	⊘	◑	◑	⊘
Classrooms, Libraries, Religious Facilities	●	◔	◔	⊘	⊘	⊘	⊘
Office Buildings	●	●	◔	◔	◑	⊘	⊘
Retail Facilities	●	●	◔	◔	●	⊘	⊘
Agriculture (Except Livestock)	●	●	●	●	●	●	●

● Compatible ◔ Compatible with Sound Attenuation ◑ Compatible on Conditional Basis ⊘ Incompatible

Source: Based on Air Installation Compatible Use Zones Program

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Additional Resources

Regional Coordination Committee Participating Members

Voting Entities	Non-Voting Entities
City of Benbrook	DOD Office of Economic Adjustment
City of Fort Worth	Naval Air Station Fort Worth, Joint Reserve Base
City of Lake Worth	Benbrook Area Chamber of Commerce
City of River Oaks	Fort Worth Chamber of Commerce
City of Westworth Village	Lockheed Martin
City of White Settlement	North Central Texas Council of Governments
Tarrant County	

Naval Air Station Fort Worth, Joint Reserve Base Regional Coordination Committee

Local governments surrounding the Naval Air Station Fort Worth, Joint Reserve Base have voluntarily formed the Regional Coordination Committee (RCC) to promote and preserve the military mission at the installation. The Committee is responsible for encouraging compatible land use planning, conducting community outreach, and participating in military affairs surrounding NAS Fort Worth, JRB. Local governments alone are responsible for regulating land use.

For more information on the RCC and how you can get involved, please visit:

www.nctcog.org/rcc

817-695-9240

NAS Fort Worth, JRB Web site:

www.cnic.navy.mil/Fortworth/index.htm

817-782-7815

To request additional copies please contact the North Central Texas Council of Governments @ 817-695-9240.

Bringing a Regional Approach to Securing the Future of NAS Fort Worth, JRB and Surrounding Communities

North Central Texas Council of Governments
P.O. Box 5888 | Arlington, TX 76005-5888
www.nctcog.org

WELCOME PACKET: INFORMATION FOR THE COMMUNITIES AROUND NAS JRB FORT WORTH: APPENDIX 5

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2013 JLUS BROCHURE

Installation Mission
NAS Fort Worth JRB's primary responsibility is to train and equip air crews and aviation ground-support personnel in preparation for deployment. The Navy has been the host of the Installation since it was designated a JRB. The JRB is used by fighter/attack and airlift units from Navy, Army, Marine Corps, Air Force (USAF), and Texas Air National Guard commands, along with non-military tenants. The installation shares the runway with Government Contractor Lockheed Martin, where its Air Force Plant 4 manufactures the F-16 and provides final stages of manufacture, assembly, and delivery of the F-35.

Airfield History

1932 The Installation was built and known as Tarrant Field Airdrome.

1941 Following the attack on Pearl Harbor, the airdrome became Fort Worth Army Air Field.

1948 The base became one of the first Strategic Air Command (SAC) bases.

1992 SAC was officially disestablished during the Air Force-wide reorganization period.

1993 In September 1993, BRAC recommendation was implemented and the base was closed; however, in October, the 301st Fighter Wing assumed base responsibilities, establishing Carswell as an Air Reserve Base (ARB). Under the 1993 BRAC decision, a new concept of joint reserve operations was formed, and numerous reserve units from the Navy, Marine Corps, and Air Force, and the Texas Air National Guard, were relocated to the Installation.

1994 After the restructuring, the base reopened as the first JRB in the country, assuming the name NAS Fort Worth JRB at Carswell Field.

Real Estate Disclosure
Real estate disclosures allow prospective buyers, lessees, or renters of property in the vicinity of military operations areas to make informed decisions regarding the purchase or lease of property. Disclosure of aviation noise and safety zones is an important tool in informing the community about expected impacts of aviation noise and locations of airfield safety zones, subsequently reducing frustration and anti-airport criticism by those who were not adequately informed before buying properties within impact areas.

Sound Insulation
The AICUZ Program, as specified in OPNAVINST 11010.36C, has noise-attenuation recommendations. NAS Fort Worth JRB actively pursues operational measures to minimize aircraft noise. Noise abatement procedures apply to flight operations and engine run-up and maintenance operations conducted on station. Noise abatement procedures at NAS Fort Worth JRB are implemented under the NAS Fort Worth JRB Air Ops Manual. The Public Affairs Officer is responsible for addressing aircraft noise complaints and communicating complaints to the Installation's Commanding Officer.

Further Information:
Contact the Community Plans and Liaison Officer at (817) 782-7609

Noise Concerns:
Contact the Public Affairs Office at (817) 782-7764

Naval Air Station Fort Worth JRB:
www.cnic.navy.mil/fortworth

Joint Land Use Study (JLUS) for Naval Air Station (NAS) Fort Worth Joint Reserve Base (JRB)

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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.

Joint Land Use Study (JLUS)

The JLUS for NAS Fort Worth JRB 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 2008 JLUS evaluated the implementation status of the recommendations issued in the 2002 Air Installations Compatible Use Zones (AICUZ) Study and recommended additional actions to be taken by local governments to improve land use decisions that may affect the mission of the base.

AICUZ Program

The DOD established the AICUZ Program to balance the need for aircraft operations with community concerns related to aircraft noise and accident potential. The U.S. Department of the Navy's (Navy's) guidance on the AICUZ Program is found in Office of the Chief of Naval Operations Instruction (OPNAVINST) 11010.36C.

Noise Zones and Noise Metric

Under the AICUZ Program, the DOD provides noise zones as a planning tool for local planning agencies. Noise exposure is measured using the day-night average sound level (DNL). DNL represents the average of cumulative noise exposure produced by individual events that occur over a 24-hour period. The DNL includes a 10-decibel (dB) adjustment, or penalty, for aircraft noise occurring between 10:00 p.m. and 7:00 a.m. because people are more sensitive to noise during normal sleeping hours.

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.

Land Use and Compatibility

To protect public health, safety, and welfare, land use should be compatible with airfield noise zones and APZs. 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 recommendations for local governments that encourage compatible development around the airfield while still supporting the Navy misison.

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.

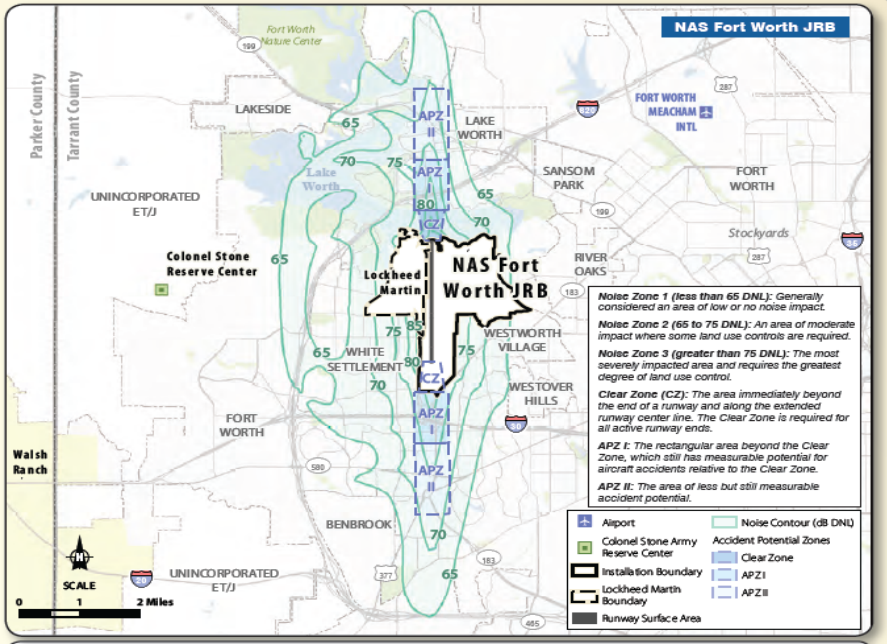

Table 1

Land Use	Land Use Compatibility with AICUZ Noise Zone (DNL)						Land Use Compatibility with APZs		
	Noise Zone 1		Noise Zone 2		Noise Zone 3				
	<65	65-66	66-70	70-75	75-80	>80	Clear Zone	APZ I	APZ II
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, May 2008

WELCOME PACKET: INFORMATION FOR THE COMMUNITIES AROUND NAS JRB FORT WORTH: APPENDIX 6

JLUS PLANNING MAP

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.

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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.

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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				
	<55	55-65	65-70	70-75	75-80	>80	Clear Zone	APZ I	APZ II
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									

Source: Adapted from OPNAVINST 11010.36C, Navy 2009

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.

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NORTH TEXAS

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

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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.

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.

F-35 A/B/C Joint Strike Fighter, Lightening 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, containerdelivery-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.

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-40s 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 B200C 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).

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.

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NORTH TEXAS

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 photormapping 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.

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 operational-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.

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.

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.

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.

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.

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NORTH TEXAS

Joint Land Use Study (JLUS) Brochure for

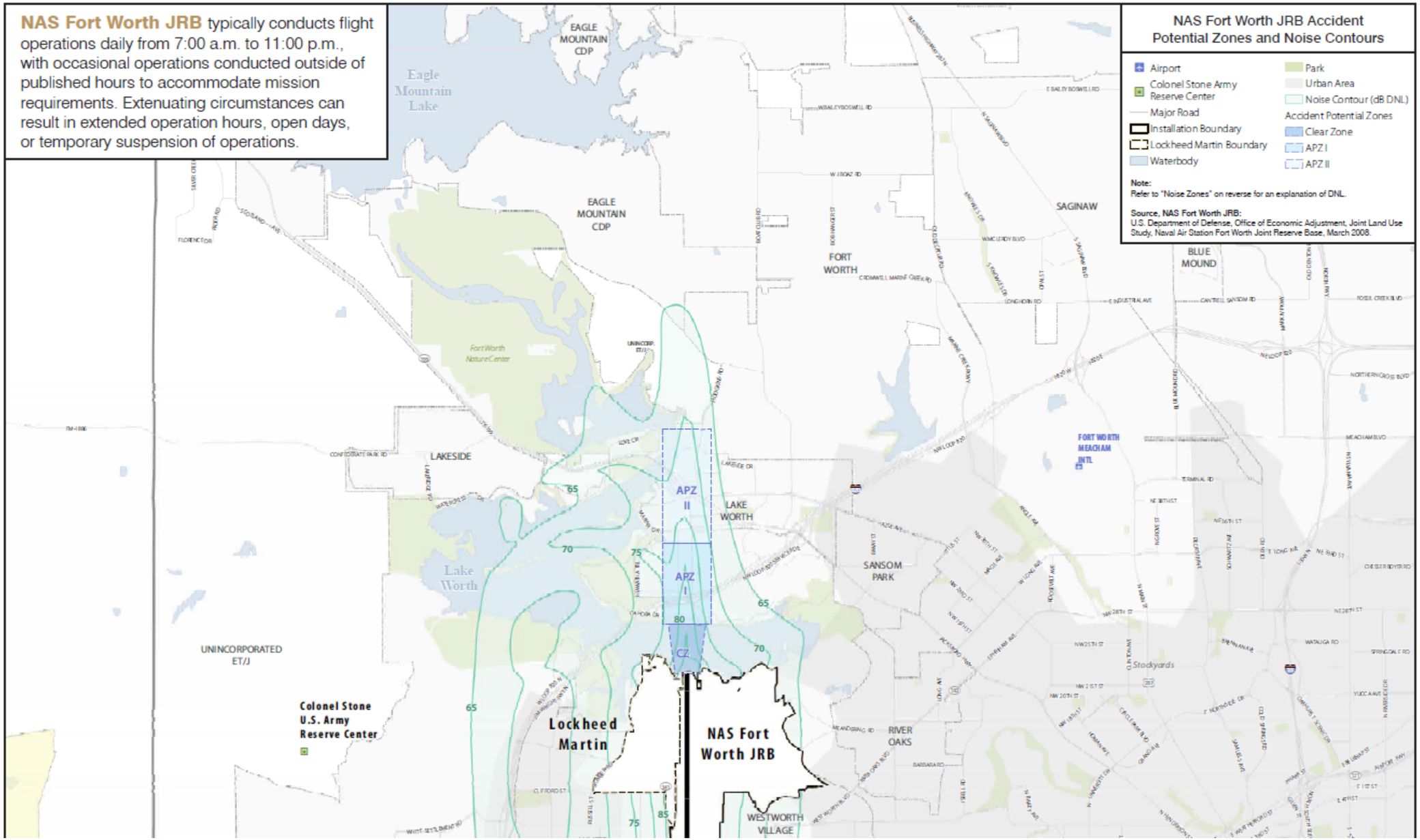
Naval Air Station (NAS) Fort Worth Joint Reserve Base (JRB)

Fort Worth, Tarrant County, Texas

2013

JOINING FORCES
NORTH 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.



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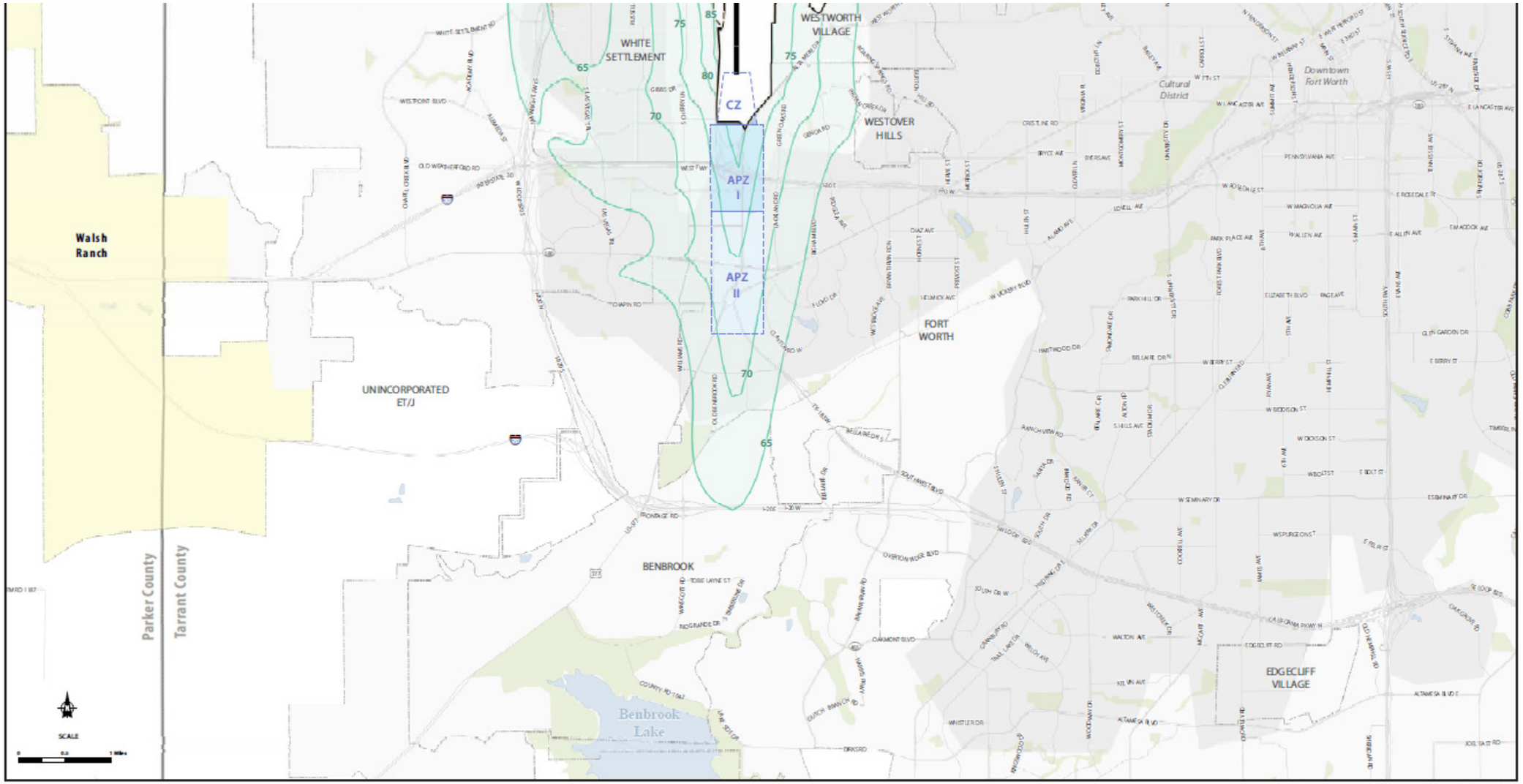

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WELCOME PACKET: INFORMATION FOR THE COMMUNITIES AROUND NAS JRB FORT WORTH: APPENDIX 7

JOINING FORCES
NORTH TEXAS

JOINING FORCES BROCHURE

BUILDING ON SUCCESSES

For a decade, the issue of compatible development has been central to NAS Fort Worth JRB and nearby municipalities:

Benbrook	Sansom Park
Fort Worth	Westworth Village
Lake Worth	White Settlement
River Oaks	Tarant County

A 2008 JLUS concluded with 17 voluntary recommendations. Two key outcomes focused on quality of life enhancements benefiting nearby residents and encouraging compatible development to preserve abilities of the military's missions. For recommendations that have been fully implemented, the most successful was creation of the Regional Coordination Committee (RCC).

The RCC works collaboratively to discuss current and future land use decisions, encourage infrastructure improvements and advocate for supportive policies at the local, State and national levels.

Many RCC successes are shown on the map in the inside of this brochure. The map also displays a Joining Forces analysis illustrating the development in the area since the 2008 study. A positive trend in compatibility was identified through land use decisions and communications as a result of the RCC.

All photos courtesy of NAS Fort Worth JRB Public Affairs.

HIGHLIGHTED IMPLEMENTATION ACTIONS FROM THE 2008 STUDY

- ✓ Form Regional Coordination Committee
- ✓ Updates to cities' future land use plans to address compatibility
- ✓ Add overlay zoning to encourage compatibility
- ✓ Update building codes to enhance sound attenuation
- ✓ Enhance stormwater drainage to prevent flooding
- ✓ Real estate disclosure for property sales
- ✓ Surface transportation improvements
  - Commercial vehicle inspection gate (complete)
  - Main gate improvements (complete)
  - Meandering Road (funded)
  - SH 199 (funded)
  - SH 183 (planned)

JOINING FORCES GOALS

The 2017 Joining Forces study focused on four goals to continue to build on the RCC's successes. The study sought to balance the region's strong population growth and development with protection of military operational capabilities; address encroachment issues associated with emerging technologies, such as renewable energy and unmanned aircraft systems; maintain the long-term viability and positive economic impact of military facilities in North Texas; and carry forward recommendations from the prior study and foster additional partnerships across installations and communities throughout the region and across Texas. The following page shows the top recommended strategies from the 2017 study.

HIGH-PRIORITY, SHORT-TERM STRATEGIES

- Identify "no fly zones" for drones and provide education to the public.
- Continue communicating among local governments and NAS Fort Worth JRB regarding development, including zoning overlays and tools that facility dialogue.
- Provide better information to real estate agents and home buyers through the real estate seller's disclosure form as well as "welcome packets" of what to expect living near a military installation.
- Coordinate with energy companies on the siting of energy infrastructure.
- Explore land conservation, or easements, where appropriate.
- Enhance new and existing buildings with sound attenuation to improve compatibility with the Navy's guidelines.
- Maintain and improve flood control infrastructure and utilize techniques to reduce storm water impacts.
- Continue implementing priority transportation improvements.
- Pursue statewide legislation to encourage compatibility.
- Hold a regional summit with other military installations in North Texas annually to share best practices and encourage efficient utilization of resources.

JOINING FORCES

NORTH TEXAS

COMPATIBLE DEVELOPMENT

NAS Fort Worth JRB strives to be a good neighbor while conducting critical training missions to prepare our nation's military forces for deployment across the globe. Cities around the base are growing and there is a need to develop in a way that is compatible with the military mission. To protect public health, safety, and welfare, land use should be compatible with airfield noise zones and accident potential zones (APZs). Land use activities outside of the installation boundaries fall under the jurisdiction of local governments and can have impacts on military installations.

JLUS STUDY

Completed in 2017, Joining Forces has been a collaborative process among local governments, military installations, citizens and other stakeholders to identify and help mitigate and prevent encroachment issues that may affect current and future military missions and nearby communities. Encroachment occurs when conditions outside the military installation limit the ability of the military to perform its mission safely and effectively, or when military operations diminish qualify of life in surrounding areas.

This study built on work begun following a similar study in 2008 and examined the progress made towards greater compatibility and made further recommendations to balance the needs of the military and the community.

Following an in-depth study, discussions with stakeholders and public meetings, ongoing compatibility issues were identified for both the area surrounding NAS Fort Worth JRB as well as larger regional issues in North Texas and beyond. Once the issues were identified, recommended strategies were developed to make continued improvement toward compatibility. These recommendations are voluntary for communities surrounding the base.

The full report, including the complete list of recommendations is available at **www.JoiningForcesNTX.org.**

The JLUS program was developed by the Department of Defense as a cooperative land use planning effort between affected local governments 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.

JOINING FORCES

Aligning Community & Military Missions

A Joint Land Use Study (JLUS) for
Naval Air Station Fort Worth
Joint Reserve Base and
Surrounding Communities

REGIONAL OVERVIEW

The North Texas region is one of the nation's most diverse and dynamic economies. Significant industry clusters include aviation/aerospace, finance, healthcare, high technology, logistics and manufacturing.

Military-related facilities are also major contributors to the region's diverse economy. Installations provide direct jobs to military personnel, contractors, civilians and support staff. Additionally, veterans compose a substantial percentage of the population, making up 6.5 percent of civilians age 18 or older in the 12-county DFW region.

ECONOMIC GENERATOR

Thr primary responsiibility of NAS Fort Worth JRB is to ensure combat readiness by training and equipping aircrews and aviation ground-support personnel. The base hosts over 45 tenant commands that represent the US Navy, US Marine Corps, US Army, US Air Force and Texas Air National Guard. The approximately 10,000 personnel operating at the 2,300-acre base conduct an average of 2,000 air operations each month.

Regionally, NAS Fort Worth JRB generates an estimated $6.6 billion in goods and services. The installation supports jobs for 17,266 people and provides direct and indirect employment to 47,256 workers. The presence of the base and nearby Lockheed Martin has elevated the region to a top aviation and aerospace hub. From 2004 through 2014, military employment in Tarrant County increased by 6 percent. Supporting the military mission is vital to the economies of Texas and the DFW region.

WELCOME PACKET: INFORMATION FOR THE COMMUNITIES AROUND NAS JRB FORT WORTH: APPENDIX 8

JOINING FORCES
NORTH TEXAS

NAS JRB FORT WORTH REGIONAL COORDINATION COMMITTEE

PUBLIC COMMENT SHEET

Instructions:

1. Please mark the box indicating whether you would like to make an oral comments, a written comment, or both oral and written comments, and if you would like to be added to the mailing list.
2. Please fill in your name and affiliation along with address (postal and email).
3. If you are submitting a written comment, please write your comment on this form.
4. Please return this form to any NCTCOG employee.

☐ **I wish to make an oral comment at the public meeting.**

☐ **I wish to submit a written comment at the public meeting.**

☐ **I wish to make both oral and written comments at the public meeting.**

☐ **I wish to be added to the NAS JRB Fort Worth Regional Coordination Committee's interested parties email notification list.**

Name/Affiliation _____

Postal Address _____

_____

Email Address _____

Please provide written comments below. You may use the back of this page if you need additional space.

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To submit comments or questions by mail, fax, or e-mail, please send to: NCTCOG, c/o Amanda Wilson, P.O. Box 5888, Arlington, TX 76005-5888 **Phone**: (817) 695-9284 **Fax**: (817) 640-3028 **E-mail**: awilson@nctcog.org **Website**: http://www.nctcog.org/jlus

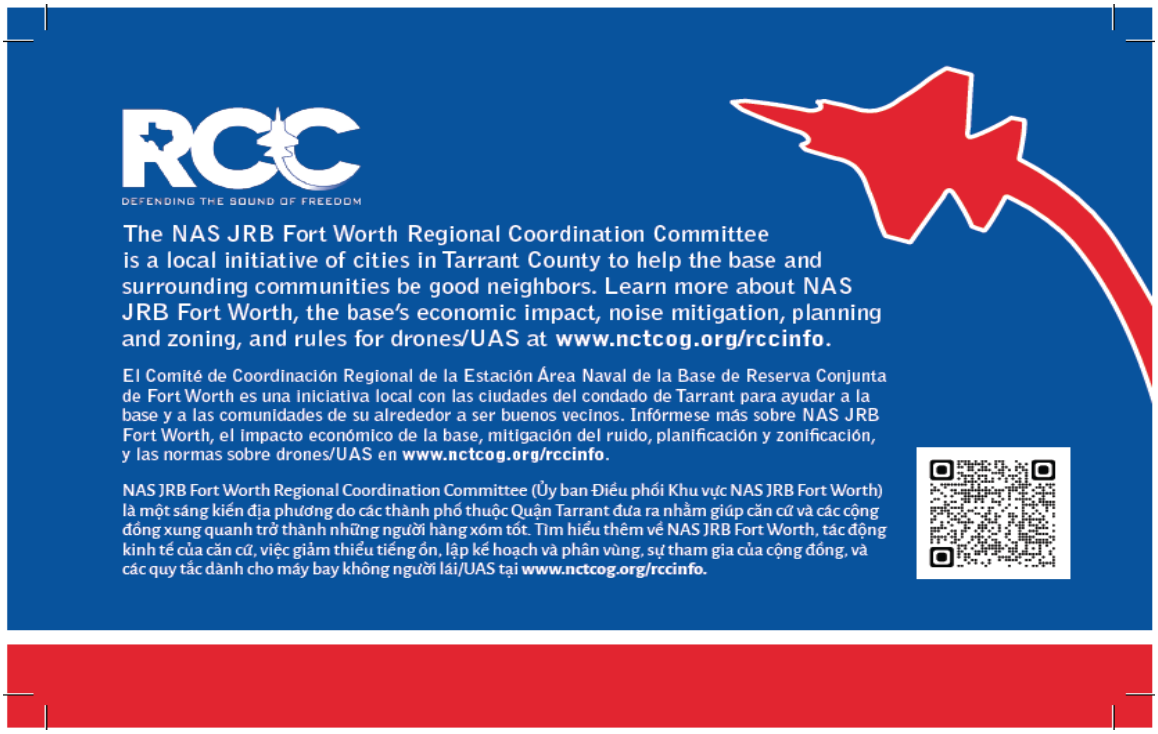
The work of the NAS JRB Fort Worth Regional Coordination Committee is comprised of Tarrant County and the cities of Benbrook, Fort Worth, Lake Worth, River Oaks, Sansom Park, Westworth Village, and White Settlement.

North Central Texas Council of Governments

WELCOME PACKET: INFORMATION FOR THE COMMUNITIES AROUND NAS JRB FORT WORTH: APPENDIX 9

JOINING FORCES
NORTH TEXAS

POSTCARD



RCC
DEFENDING THE SOUND OF FREEDOM

Hello, neighbor!

The Naval Air Station Joint Reserve Base Fort Worth is the first Joint Reserve Base in the country. NAS JRB Fort Worth provides support and training for all branches of the Armed Services. The base is also an active participant in the Tarrant County community. Get to know us at www.nctcog.org/rccinfo.

WELCOME PACKET: INFORMATION FOR THE COMMUNITIES AROUND NAS JRB FORT WORTH: APPENDIX 10

JOINING FORCES
NORTH TEXAS

WATER BILL INSERT

The Naval Air Station Joint Reserve Base Fort Worth Regional Coordination Committee is a local initiative of cities in Tarrant County to help the base and surrounding communities be good neighbors. Learn more about NAS JRB Fort Worth, the base's economic impact, noise mitigation, planning and zoning, and rules for drones/UAS at **www.nctcog.org/rccinfo.**

El Comité de Coordinación Regional de la Estación Área Naval de la Base de Reserva Conjunta de Fort Worth es una iniciativa local con las ciudades del condado de Tarrant para ayudar a la base y a las comunidades de su alrededor a ser buenos vecinos. Infórmese más sobre NAS JRB Fort Worth, el impacto económico de la base, mitigación del ruido, planificación y zonificación, y las normas sobre drones/UAS en **www.nctcog.org/rccinfo.**

NAS JRB Fort Worth Regional Coordination Committee (Ủy ban Điều phối Khu vực NAS JRB Fort Worth) là một sáng kiến địa phương do các thành phố thuộc Quận Tarrant đưa ra nhằm giúp căn cứ và các cộng đồng xung quanh trở thành những người hàng xóm tốt. Tìm hiểu thêm về NAS JRB Fort Worth, tác động kinh tế của căn cứ, việc giảm thiểu tiếng ồn, lập kế hoạch và phân vùng, sự tham gia của cộng đồng, và các quy tắc dành cho máy bay không người lái/UAS tại **www.nctcog.org/rccinfo.**

RCC

DEFENDING THE SOUND OF FREEDOM

WELCOME PACKET: INFORMATION FOR THE COMMUNITIES AROUND NAS JRB FORT WORTH: APPENDIX 11

JOINING FORCES
NORTH TEXAS

ARTICLE AND SOCIAL MEDIA

Get to Know the Naval Air Station Joint Reserve Base

A new effort to provide Tarrant County residents with more information about the Naval Air Station Joint Reserve Base Fort Worth (NAS JRB Fort Worth) has launched at www.nctcog.org/rccinfo. The webpage provides background on NAS JRB Fort Worth, its economic impact, and local coordination efforts on noise mitigation, planning and zoning, and rules for drones/unmanned aircraft systems (UAS).

First established during World War II, NAS JRB Fort Worth provides support and training for all branches of the Armed Services. Through the Regional Coordination Committee (RCC), the base is also an active participant in the community and coordinates with the cities of Benbrook, Fort Worth, Lake Worth, River Oaks, Sansom Park, Westworth Village, and White Settlement in conjunction with Tarrant County.

The RCC was initiated in 2008 to help the base and community work together to address the challenge of uran development around a military installation, balancing concerns about local quality of life with the base's ability to sustain its military training mission. The RCC is composed of voting members from these local governments as well as non-voting members from other interested orgainzations, including NAS JRB Fort Worth. Staff from the North Central Texas Council of Governments (NCTCOG) provide administrative support.

The RCC's efforts focus on promoting compatible land use, minimizing height obstructions, and expanding community outreach regarding the importance of the base's mission, operations, and economic impact. In addition, the RCC has helped push transportation improvements forward through planning studies and creative funding partnerships. To learn more about NAS JRB Fort Worth and the RCC, visit www.nctcog.org/rccinfo.

Social Media Message 1

The NAS JRB Fort Worth Regional Coordination Committee is a local initiative of cities in Tarrant County to help the base and surrounding communities be good neighbors. Learn more about the Naval Air Station Joint Reserve Base Fort Worth, the base's economic impact, noise mitigation, planning and zoning, and rules for drones/UAS at www.nctcog.org/rccinfo.

Social Media Message 2

Have you ever wondered about the military base in Tarrant County? A new website has community information about the Naval Air Station Joint Reserve Base Fort Worth. Learn more about the base, its economic impact, noise mitigation, planning and zoning, and rules for drones/UAS at www.nctcog.org/rccinfo.