



Air Installations Compatible Use Zones Study

Beale Air Force Base, California

2020



U.S. AIR FORCE



Air Installations Compatible Use Zones Program

The Department of Defense's (DoD's) Air Installations Compatible Use Zones (AICUZ) Program balances the needs of aircraft operations with community concerns by focusing on people, safety, and protection.¹ This brochure summarizes the Beale Air Force Base (AFB), California, 2020 AICUZ Study. The 2020 AICUZ Study

provides an update to the 2005 AICUZ Study for Beale AFB. The update incorporates changes in aircraft operations, including increased KC-135 tanker operations, changes in flight tracks, and changes in noise modeling methodology. The study also provides compatible land use recommendations for land areas surrounding Beale AFB.

Land close to Beale AFB is exposed to increased noise levels. Without compatible land use controls, development in these areas surrounding Beale AFB could result in incompatible uses that create conflicts between military flight operations and landowners.



¹The Air Force's guidance on the AICUZ program may be found in Air Force Instruction 32-1015 (2019).

Beale Air Force Base History and Mission

Beale AFB is located on the site of the former Camp Beale, which was constructed by the Army in 1942 in response to the Japanese attack on Pearl Harbor on December 7, 1941. The installation was transferred to the Air Force in 1948 and renamed Beale Air Force Base in 1951. The installation has hosted many types of aircraft and missions over the years, including the SR-71 Blackbird starting in the 1960s and the U-2 Dragon Lady and RQ-4 Global Hawk today.

The primary mission of Beale AFB is to train, deploy, and employ our Airmen and assets to deliver combat power and globally integrated intelligence, surveillance, and reconnaissance in support of national objectives.

Between 2006 and 2008, local communities participated in the Beale Joint Land Use Study, a strategy guide intended to protect the viability of current and future missions at Beale AFB while accommodating growth, sustaining the economic health of the region, and protecting public health and safety.



Economic Impact

DoD operations at Beale AFB contributed a total economic impact of \$627 million in fiscal year 2017, including all procurement and military and civilian payroll. The economic impact of the installation extends throughout the state of California but is concentrated in the five counties making up the surrounding region: Butte, Nevada, Placer, Sutter, and Yuba counties.

Beale AFB provides installation support to DoD and other federal agencies serving a population of over 11,500 Airmen, civilians, and dependents.

Noise Zones, Clear Zones, and Accident Potential Zones

Under the AICUZ Program, the DoD provides noise zones to define noise exposure. The Air Force and the State of California use a metric called the Community Noise Equivalent Level (CNEL) to measure noise exposure based on the accumulation of noise energy from all aircraft noise events in a 24-hour day. The CNEL takes into account the time of day that a noise event takes place:

- The CNEL adds a 10-dB adjustment to each noise event between 10:00 p.m. and 7:00 a.m. to account for the intrusiveness of nighttime aircraft operations.
- The CNEL also adds an adjustment of 5 dB to each evening operation between 7:00 p.m. and 10:00 p.m.

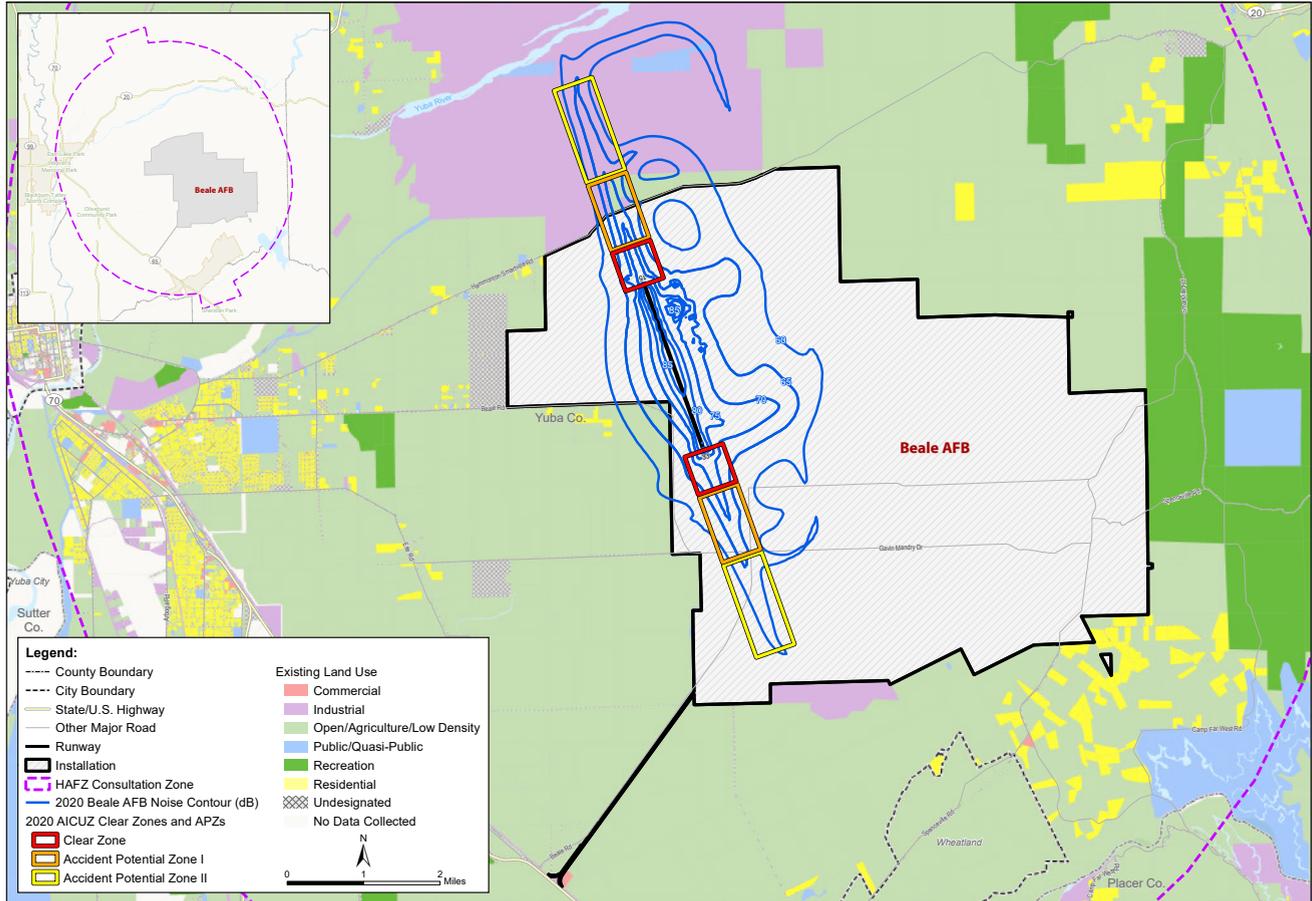
The Air Force also defines Clear Zones and Accident Potential Zones (APZs) in the Beale AFB 2020 AICUZ Study. Extending a combined total of 15,000 feet from the end of each runway along the runway's extended centerline, Clear Zones and APZs define the areas where an aircraft accident is likely to occur, if an accident occurs.

The map on the next page shows Beale AFB's noise zones, Clear Zones, and APZs over existing land use data for individual parcels provided by local communities.

Noise contours are based on typical operations and flight tracks during normal operations. Weather conditions, wind, pilot technique, and other air traffic can cause some lateral deviation within the traffic pattern around a runway.



2020 AICUZ Noise Contours, Clear Zones, and APZs for Beale Air Force Base



Compatible Development

The AICUZ Program includes recommendations for land use compatibility within noise zones, Clear Zones, and APZs. In general, these guidelines recommend that noise-sensitive land uses be placed outside of high noise zones and that people-intensive uses not be placed within APZs. Land development should be compatible with noise zones, Clear Zones, and APZs around a military airfield. At Beale AFB, most existing land uses and zoning districts within the noise zones, Clear Zones, and APZs are compatible with aircraft operations at the installation.

Although the military can serve in an advisory capacity, local governments control land use and development beyond the boundaries of Beale AFB. To promote compatible development in areas surrounding the installation, Yuba County has created the Airport Environs Overlay District to identify the range of uses compatible with Beale AFB's APZs and noise zones and prohibit development of incompatible uses.



Hazards to Aircraft Flight Zone (HAFZ)

Other land uses and activities that can pose potential hazards to flight include:

- Uses that would attract birds;
- 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; and
- Electromagnetic interference (EMI) with aircraft communication and navigation.

The HAFZ is a consultation zone within which the Air Force requests that project applicants and local planning bodies consult with the Air Force to ensure proposed projects are compatible with the installation's operations relative to these concerns.



Air Force and Community Roles

Implementation of the AICUZ Study must be a joint effort between Beale AFB and surrounding communities. The 2020 Beale AFB AICUZ Study provides the best source of information about the roles the Air Force, local government, and the community can play to ensure land use planning decisions are compatible with a future installation presence.

For a copy of the Beale AFB AICUZ Study, please contact the 9th Reconnaissance Wing Public Affairs Office at 530-634-8887.

More Information

Concerned citizens with noise complaints are encouraged to contact the 9th Reconnaissance Wing Public Affairs Office at 530-634-8887.

Beale AFB also posts information online, including notices of upcoming aircraft operations that are able to be shared publicly:

Website: <https://www.beale.af.mil/>

Facebook: <https://www.facebook.com/BealeAirForceBase/>

Twitter: <https://twitter.com/9thrw>

