





Noise, Safety, and Land Use Compatibility

AICUZ Program Overview

The Department of Defense's (DoD's) Air Installations Compatible Use Zones (AICUZ) Program balances the needs of aircraft operations with community concerns by promoting compatible use of lands in the vicinity of military airfields. This is done to protect public health, safety, and welfare without degrading flight safety and mission requirements. AICUZ studies analyze the effects of aircraft noise, aircraft accident potential, and land development on present and future neighbors of U.S. Air Force bases.



Beale Air Force Base's (AFB's) 2020 AICUZ Study is an update to the 2005 AICUZ Study and documents changes in flight operations and noise contours.

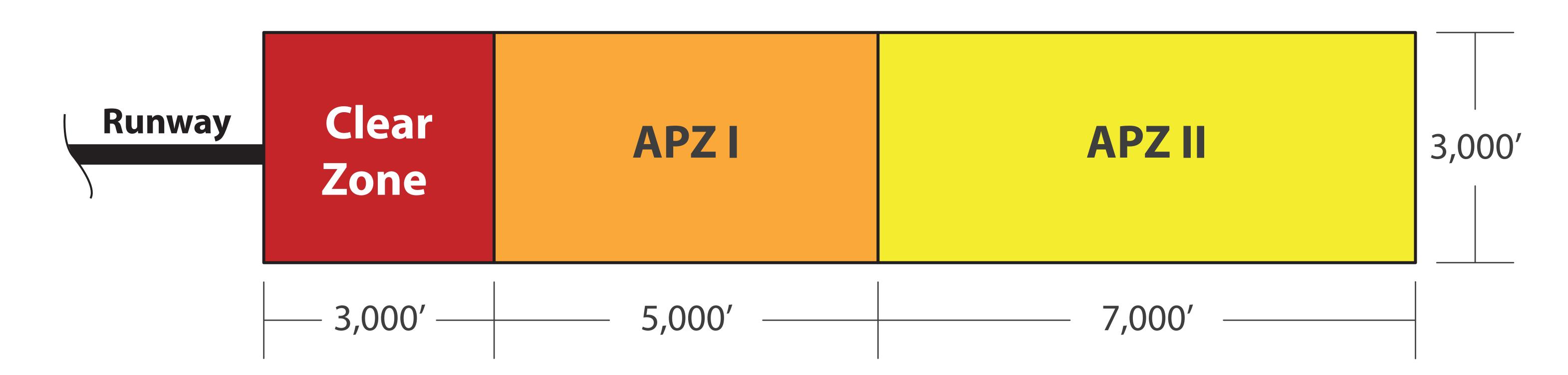
Noise Metrics and Contours

Under the AICUZ Program, the DoD and State of California provide noise zones to define noise exposure using the Community Noise Equivalent Level (CNEL). The CNEL is based on the average number of aircraft operations over a 24-hour period and takes into account the time of day that a noise event takes place by:

- Adding a 10-dB penalty to each noise event between 10:00 p.m. and 7:00 a.m. to account for the intrusiveness of nighttime aircraft operations.
- Adding a penalty of 5 dB to each evening operation between 7:00 p.m. and 10:00 p.m.

Clear Zones and Accident Potential Zones

The DoD provides Clear Zones and Accident Potential Zones (APZs) as planning tools for local agencies. Clear Zones and APZs define the areas where an aircraft accident is likely to occur, if an accident occurs. The Clear Zones and APZs are calculated from the end of each runway.



Land Use Compatibility

Recommendations for land use within noise zones, Clear Zones, and APZs are shown in the table below. In general, AICUZ Program guidelines recommend that noise-sensitive land uses be placed outside of high noise zones and people-intensive uses not be placed within APZs.

Land Use Classification and Compatibility Guidelines

	NOISE ZONE (dB CNEL)						CLEAR		
Generalized Land Use	<65	65-69	70-74	75-79	80-84	85+	ZONE	APZI	APZ II
Residential	Yes	No ¹	No ¹	No	No	No	No	No	No ¹
Commercial	Yes	Yes	Yes²	Yes²	No	No	No	Yes²	Yes²
Industrial	Yes	Yes	Yes	Yes	Yes ²	No	No	Yes²	Yes ²
Public/Quasi-Public	Yes	Yes ²	Yes²	Yes ²	No	No	No	No	Yes²
Recreation	Yes	Yes ²	Yes²	No	No	No	No	Yes ²	Yes²
Open/Agriculture/Low Density	Yes	Yes ²	Yes²	Yes ²	Yes ²	Yes²	No	Yes ²	Yes²
Undesignated	Yes	No	No	No	No	No	No	No	No

Key:Compatible

Incompatible

Compatible

Compatib

Source: Adapted from AFI 32-1015 Refer to AICUZ Study Appendix A for details