

CHARLESTON AIR FORCE BASE AIR INSTALLATION COMPATIBLE USE ZONE STUDY

CITIZEN'S BROCHURE

2004



What is AICUZ?

Air Installation Compatible Use Zone (AICUZ) is a program concerning people, their comfort, safety, and protection. This brochure summarizes the AICUZ Study for Charleston Air Force Base (AFB), South Carolina. The AICUZ program is an extensive analysis of the effects of aircraft noise, aircraft accident potential, and land use development upon present and future neighbors of Charleston AFB. The AICUZ program seeks a cooperative understanding and a reasonable solution to this intricate situation.

Is there a problem?

Military airfields, as employment centers, attract development in the immediate area. In the absence of compatible land use controls, inappropriate uses may be made of property near or adjacent to the installation causing eventual conflicts between flight operations and landowners. Because land close to Charleston AFB is subject to high noise levels and potential aircraft accidents, certain types of development are not compatible.

What has been done?

Charleston AFB has attempted to be a good neighbor by restricting flying activities that could adversely affect its neighbors. When possible, practice approach and departure operations are conducted during daylight hours when expected noise disruptions are less than they would be during evening hours. Flight pattern altitudes and the runway approach angles have been adjusted over the years in an effort to reduce noise impacts while maintaining safe operations. Charleston AFB also has demonstrated a spirit of cooperation by consulting with local communities in the area wide planning process relating to land use near the installation. The cities of North Charleston, Charleston, and Hanahan also have played major roles by supporting the Charleston AFB AICUZ program in their ongoing planning and zoning decisions. Continued cooperation between Charleston AFB, local governments, and the local populace will further reduce potential land use conflicts. This action will also help to insure that future land uses are compatible and beneficial.

What are the benefits?

In addition to protecting the public safety and health, other benefits include protecting the taxpayer's investment in national defense provided by Charleston AFB and protecting economic benefits to the surrounding communities generated by Charleston AFB activities and employment. The local economy is enhanced by Charleston AFB's expenditures for salaries, contracts, construction, retirement pay, tuition aid to schools, health insurance payments, and off-installation accommodations for travelers. In terms of total economic impact in the region, Charleston AFB generates approximately 11,558 jobs. The economic impact is felt not only in the area of employment, but also in an annual payroll totaling

almost \$452.4 million that is spent in the local community. Charleston AFB is a strong partner in the economic future of the region.

Why AICUZ now?

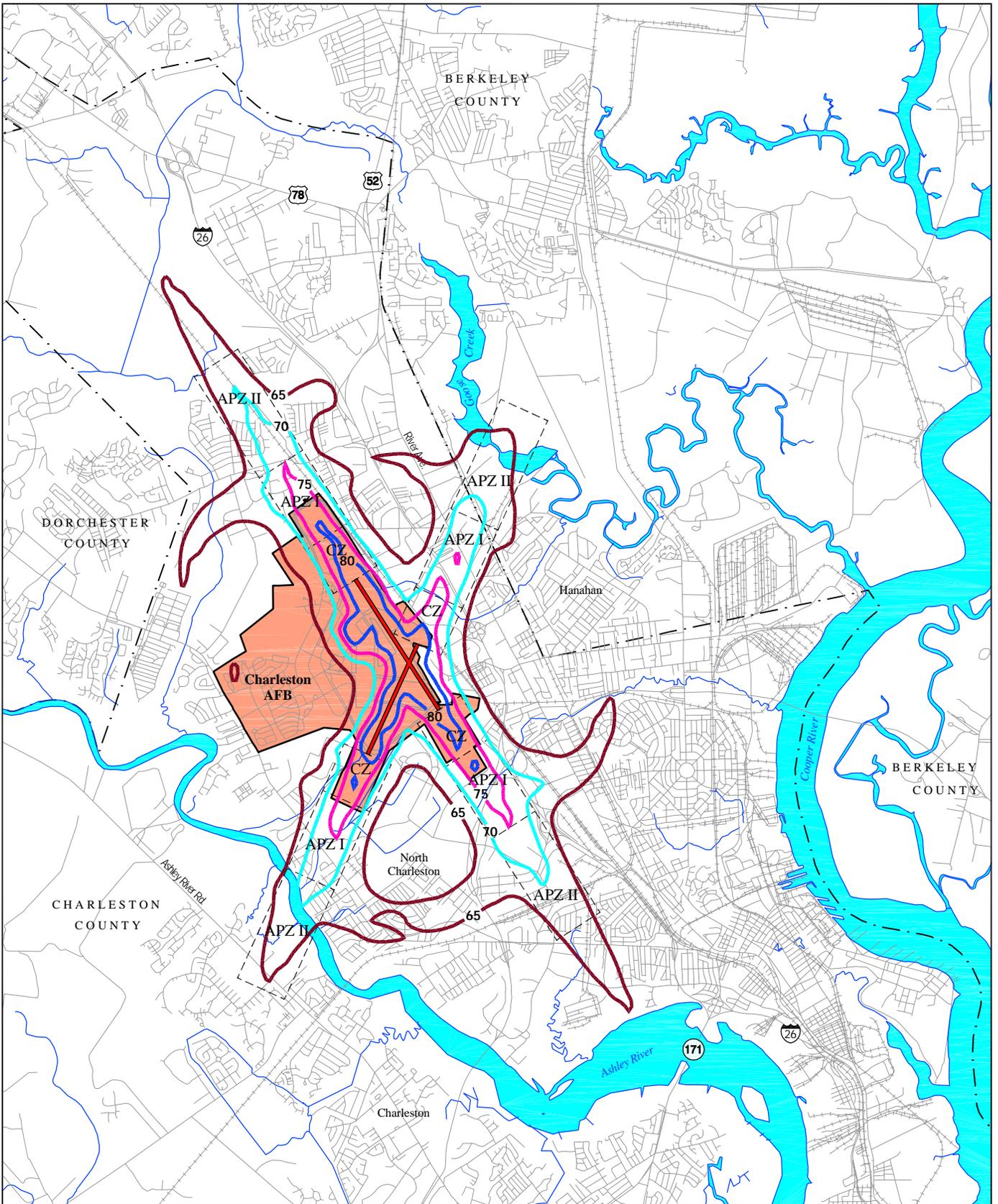
As growth continues in the communities in this area, it is important that local governments have an understanding of the current noise and accident potential data related to aircraft operations at Charleston AFB. Information provided in this AICUZ report is intended to offer assistance to those planning the future of the communities surrounding the installation: the communities of North Charleston, Charleston, and Hanahan, as well as Charleston, Berkeley, and Dorchester counties. By using the updated AICUZ map and information provided in the AICUZ Study, neighboring communities are better equipped to make land use decisions and adopt land use controls that are compatible with Charleston AFB, while accommodating growth and economic development.

This AICUZ Study provides an update to the previous 1992 AICUZ Study. This update presents and documents the changes to the AICUZ for the period 1993-2002 and is based on the 2002 aircraft operations condition to include anticipated future operations. This AICUZ Study reaffirms Air Force policy of promoting public health, safety, and general welfare in the areas surrounding Charleston AFB. Specifically, the report documents changes in flight operations since the last study, as well as anticipated operations, and provides noise contours and compatible use guidelines for land areas surrounding Charleston AFB.

What does the AICUZ program mean to me?

The AICUZ program means protection of the public safety and health as well as protection of the Air Force's national defense mission. The AICUZ program itself is a composite of many factors: average noise levels; accident potential; and aircraft flight paths and altitudes. Noise and accident potential zones reflecting current conditions have been combined and displayed on the contour map on the next page. The numbers 65dB through 80dB indicate the average sound levels in decibels using the Day-Night Average A-Weighted Sound Level (DNL) metric for describing the noise environment. DNL is the energy-averaged sound level measured over 24 hours with a 10 dB penalty applied to nighttime (10:00 p.m. to 7:00 a.m. as defined by the noise metric) sound events to account for increased annoyance from late night noise.

The clear zones (CZs) and accident potential zones (APZs) are based upon statistical analysis of Air Force aircraft accidents throughout the United States. The CZ, the area closest to the runway end, is the most hazardous. The Air Force generally acquires the land in the CZ through purchase or easement to prevent development.



742097 CSC-CBR.DWG

Charleston Air Force Base

LEGEND

- 65 dBA Contour
- 70 dBA Contour
- 75 dBA Contour
- 80 dBA Contour
- CZ Clear Zone
- APZ I Accident Potential Zone I
- APZ II Accident Potential Zone II
- Charleston AFB
- Runway
- Roadway



2004 AICUZ Study

**Average Busy Day
Noise Contours for
Future Aircraft Operations
and Clear Zones and
Accident Potential Zones**

APZ I is an area beyond the clear zone that possesses a significant potential for accidents. APZ II is an area beyond APZ I having a lower, but still significant, potential for accidents. Statistically, 68 percent of Air Force accidents have occurred along the runway or within the CZ, APZ I, and APZ II. While aircraft accident potential in APZs I and II does not warrant acquisition by the Air Force, land use planning and controls are strongly encouraged in these areas for the protection of the public. An additional constraint involves areas that the Federal Aviation Administration and Department of Defense have identified for height limitations. Air Force obstruction criteria are based upon those contained in Federal Aviation Regulation (FAR) Part 77, Subpart C.

The accompanying AICUZ map and Recommended Land Use table provide a quick reference to the various noise and accident potential zones associated with flying operations projected for Charleston AFB and land use compatibility. More detailed information can be found in the 2004 Charleston AFB AICUZ Study.

How can I help?

Historically, the citizens of the surrounding communities and Charleston, Berkeley, and Dorchester counties and the personnel of Charleston AFB have cooperated to better serve the needs and desires of all concerned. The Air Force has developed solutions intended to maximize the benefits of Charleston AFB while minimizing annoyances. If the future of Charleston AFB is to be as bright as it's past, you, the citizens of this area need to participate in the process of achieving a suitable resolution of our mutual concerns. We request your careful review of the recommendations contained in Charleston AFB's AICUZ Study.

Who prepared the AICUZ Study?

The AICUZ Study was developed by concerned people at Charleston AFB under supervision of Headquarters

United States Air Force and Headquarters Air Mobility Command.

This Citizen's Brochure summarizes the 2004 Charleston AFB AICUZ Study, with only the major points of the report included in this brochure. The complete report is available at Charleston AFB from the Public Affairs Office; copies have also been placed in local libraries, and are on file with the Charleston County Recorder.

Summary

The AICUZ report includes the following recommendations:

- The Charleston AFB AICUZ report should be adopted as an official guide for future planning;
- Incorporate AICUZ policies and guidelines into the comprehensive plans of surrounding communities and Charleston. Use overlay maps of the AICUZ noise contours and Air Force Land Use Compatibility Guidelines to evaluate existing and future land use proposals.
- Modify existing zoning ordinances and subdivision regulations to support the compatible land uses outlined in the AICUZ Study.
- Implement height and obstruction ordinances that reflect current Air Force and FAR Part 77 requirements.
- Modify building codes to ensure new construction within the AICUZ area has the recommended noise level reductions incorporated into its design and construction.
- Continue to inform Charleston AFB of planning and zoning actions that have the potential of affecting air operations.

Recommended Land Use							
Generalized Land Use	Clear Zones and Accident Potential Zones			Noise Zones			
	Clear Zones	APZ I	APZ II	65-69 dB	70-74 dB	75-79dB	80+ dB
Residential	No	No	Yes ¹	Not Recommended ⁴	Not Recommended ⁴	Not Recommended	Not Recommended
Commercial	No	No	Yes ²	Recommended	Recommended	Recommended	Not Recommended
Industrial	No	Yes ²	Yes ²	Recommended	Recommended	Recommended	Recommended
Public/Quasi-Public	No	No	Yes ²	Recommended	Not Recommended ⁴	Not Recommended ⁴	Not Recommended
Recreational	No	Yes ²	Yes ²	Recommended	Recommended	Not Recommended	Not Recommended
Open/Agriculture / Low Density	No ³	Yes ²	Yes ²	Recommended	Recommended	Recommended	Recommended

¹ Suggested maximum density 1 dwelling unit per acre.

² Only limited low-density, low-intensity uses recommended.

³ Except limited agricultural uses are permitted.

⁴ Unless sound attenuation materials are installed.

This chart is for general information. See Table 4.3 in the AICUZ Study for more detailed information.