

# **AICUZ STUDY**

## **CITIZEN'S BROCHURE**



**North Auxiliary Air Field  
Charleston AFB, South Carolina  
United States Air Force  
1993**

## **What Is AICUZ?**

Air Installation Compatible Use Zone (AICUZ) is a program concerning people, their comfort, safety and protection. This brochure briefly summarizes the AICUZ study - an extensive analysis of the effects of noise, aircraft accident potential, and land use and development upon present and future neighbors of North Auxiliary Airfield (North AAF), South Carolina. AICUZ seeks a cooperative understanding and a reasonable solution to this intricate problem.

## **Is there a problem?**

Military airfields attract development to immediate surrounding areas. Lacking compatible land use controls, inappropriate uses may be made of property near the installation causing eventual conflicts between flight operations and landowners. Because land close to North AAF is subject to high noise levels and aircraft accident potentials, certain types of development are not suitable.

## **What has been done?**

Charleston AFB has attempted to be a good neighbor by restricting North AAF flying activities that could adversely affect its neighbors. Although North AAF is used for special night training operations and practice personnel/material air drops, operations are normally conducted during daylight hours when expected noise disruptions are less than it would be during evening hours. Charleston AFB has planted trees at North AAF that minimize the visual and acoustic impact of the airfield on the town of North. Altitude of flight patterns and the runway approach angles have been adjusted over the years to reduce noise impacts while maintaining safe operations. Base personnel have displayed a spirit of cooperation and good-will by participating in local events, and entertaining Boy Scout campouts and an annual Open House. Area residents have been extremely amiable to the airfield's presence and needs. Continued cooperation by Charleston AFB, local governments, and the local populace will further reduce potential land use conflicts. This action will help ensure that future land use is compatible and beneficial.

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## What are the benefits?

Besides protecting the public safety and health, primary benefits include protecting the taxpayer's investment in national defense provided by North AAF and protecting economic benefits to the surrounding communities generated by base activities. The local economy is enhanced by North AAF's expenditures for repairs and maintenance, fuel, supplies for the airfield's wildlife management program, and off-base accommodations for travelers. Income from the ten full-time civilian employees and the 35 active duty Air Force members provides secondary economic benefits to the area. In addition, base firefighters respond, as needed, to area emergencies. While shrinking Department of Defense budgets challenge the leadership at Charleston AFB and North AAF, the airfield continues to be a strong partner in the economic future of the local communities and Orangeburg County.

## Why AICUZ now?

Orangeburg County and its communities have experienced little land use development since the airfield's inception in 1942, and land use development near the airfield is generally compatible with the airfield's flight operations. Modifications to flight operations at North AAF have resulted in increased airfield usage by Charleston AFB and other Air Force installation aircraft. This trend is expected to continue in the future as other DoD installations experience increased airspace restrictions. Due to the relatively undeveloped state of the North AAF environs, now is an ideal time to implement airfield zoning and compatible land use plans which protect *citizens from the dangers of aircraft overflight and high noise levels*. By using the 1993 AICUZ map and information provided in the 1993 AICUZ Study, neighboring communities are better equipped to make land use decisions and adopt land use controls that are compatible with North AAF, yet enable growth and economic use of private property. Information provided in the AICUZ report is intended to offer assistance and guidance to those planning the future of Orangeburg County and its communities.

## What does AICUZ mean to me?

AICUZ means protection of the public safety and health as well as protection of the Air Force's national defense mission. The AICUZ itself is a composite of many factors: average noise levels, accident potential, and

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aircraft flight paths and altitudes. Noise contours and accident potential zones have been combined and displayed on the AICUZ maps found on pages six and seven of this brochure. The current noise conditions are depicted on page six, while noise conditions based on Air Force C-17 aircraft procurement predictions are depicted on page seven. The numbers 65 dB through 80 dB indicate the average sound levels in decibels for a particular area using the Day-Night Average A-Weighted Sound Level (DNL) metric for describing the noise environment. The clear zones (CZs) and accident potential zones (APZs) are based upon statistical analysis of past DoD aircraft accidents. The clear zone, the area closest to the runway end, is the most hazardous. The total risk is so high that the Department of Defense generally acquires the land through purchase or easement to prevent development. 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 reduced, yet still significant, potential for accidents. While aircraft accident potential in APZs I and II do 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 (FAA) and DoD have identified for height limitations. Air Force obstruction criteria are based upon those contained in Federal Aviation Regulation Part 77, Subpart C and AFR 86-14.

The accompanying generalized land use charts and AICUZ maps provide a quick reference to the various noise and accident potential zones around North AAF. More detailed information can be found in the North AAF 1993 AICUZ Study, Volume I.

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## COMPATIBILITY CHART\* LAND USE/AIRCRAFT NOISE

Generalized Land Use	DNL NOISE CONTOURS			
	65-70 dB	70-75 dB	75-80 dB	80+ dB
Residential	No <sup>1</sup>	No <sup>1</sup>	No	No
Manufacturing	Yes	Yes	Yes	Yes
Transportation, Communications, and Utilities	Yes	Yes	Yes	No
Trade, Business, and Offices	Yes	Yes	Yes	No
Shopping Districts	Yes	Yes	Yes	No
Public and Quasi-Public Service	Yes	No <sup>1</sup>	No <sup>1</sup>	No
Recreation	Yes	Yes	No	No
Public Assembly	Yes	No	No	No
Agriculture and Mining	Yes	Yes	Yes	Yes

<sup>1</sup>Unless sound attenuation materials are installed.

\*This chart is for general information. Refer to Volume I, Figure 4 for specific land uses and guidelines.

## COMPATIBILITY CHART\* LAND USE/ACCIDENT POTENTIAL ZONES

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Generalized Land Use	ACCIDENT POTENTIAL ZONES		
	Clear Zone	APZ I	APZ II
Residential	No	No	Yes <sup>1</sup>
Manufacturing	No	Yes <sup>2</sup>	Yes <sup>2</sup>
Transportation, Communications, and Utilities	No	Yes <sup>2</sup>	Yes <sup>2</sup>
Trade, Business, and Offices	No	Yes <sup>2</sup>	Yes <sup>2</sup>
Shopping Districts	No	No	Yes <sup>2</sup>
Public and Quasi-Public Service	No	No	Yes <sup>2</sup>
Recreation	No	Yes <sup>2</sup>	Yes <sup>2</sup>
Public Assembly	No	No	No
Agriculture and Mining	No <sup>3</sup>	Yes <sup>2</sup>	Yes <sup>2</sup>

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<sup>1</sup>Suggested maximum density of one 1 dwelling unit per acre.

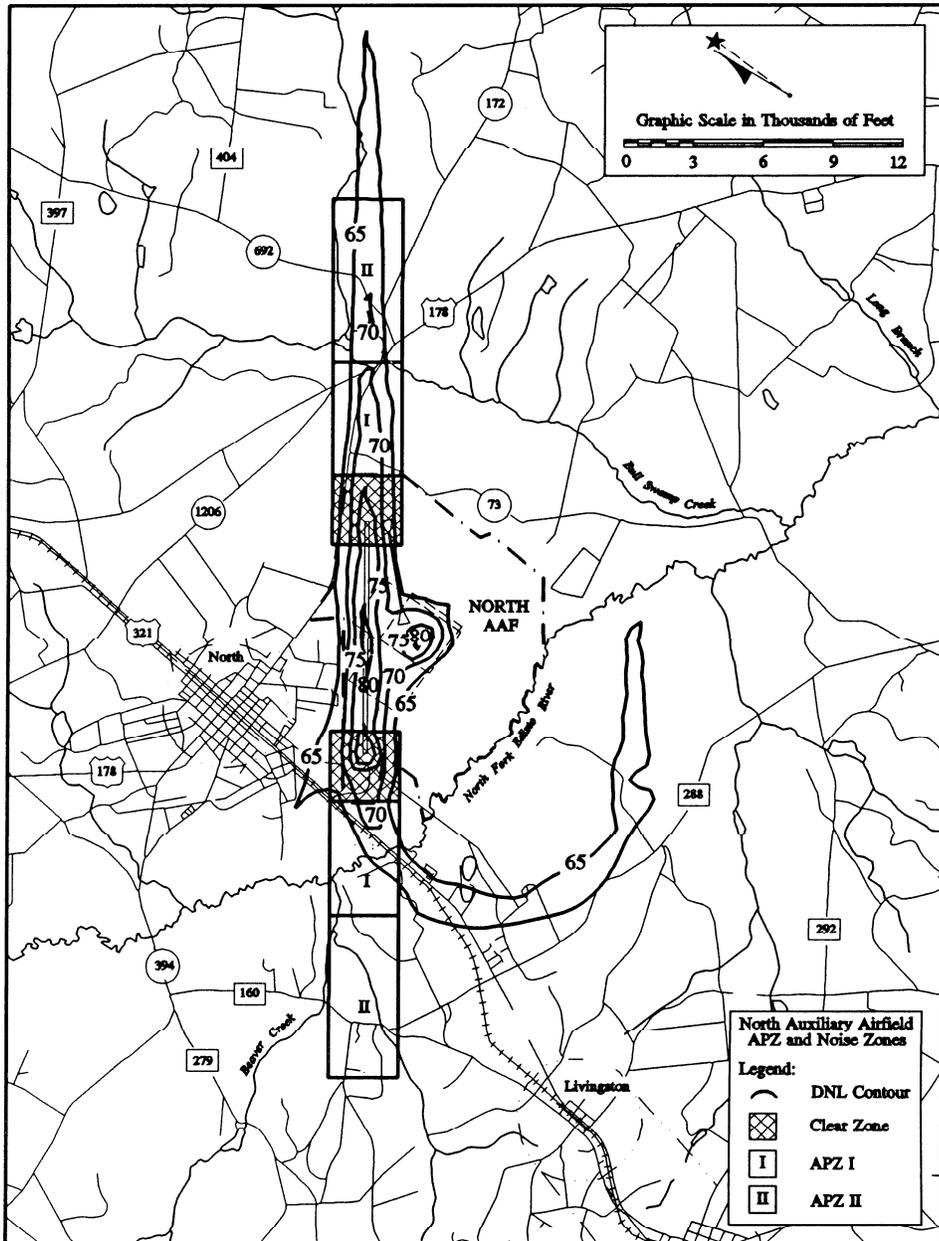
<sup>2</sup>Only limited low-density, low-intensity uses recommended.

<sup>3</sup>Except limited agricultural uses are permitted.

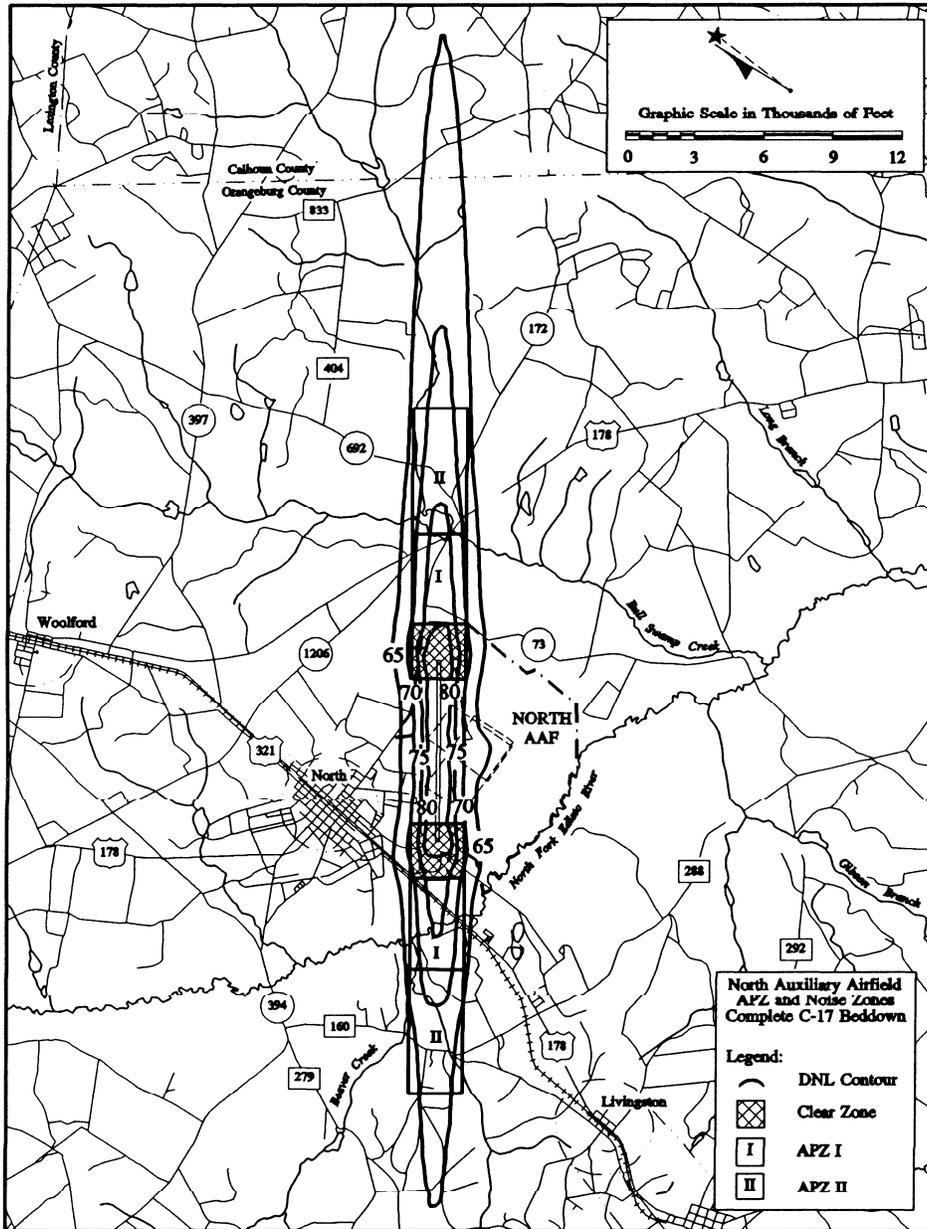
\*This chart is for general information. Refer to Volume I, Figure 4 for specific land uses and guidelines.

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AICUZ MAP, CURRENT CONDITIONS



## AICUZ MAP, CONDITIONS AFTER C-17 CONVERSION



**The AICUZ report includes the following recommendations:**

**The AICUZ report** *should be adopted as an official guideline by affected jurisdictions for planning purposes.*

**Zoning ordinances** *should be adopted in affected jurisdictions that reflect the compatible land uses outlined in the North AAF 1993 AICUZ Report.*

**Fair disclosure ordinances** *should be enacted to specify to the public those AICUZ items directly related to operations at North AAF.*

**Height control of structures near flight paths** *should be regulated by incorporating AICUZ recommendations in local ordinances.*

**Building codes** *should be incorporated to require noise level reduction in areas that are affected by noise generated from North AAF aircraft.*

**Capital improvement programs** *should be carefully reviewed to discourage incompatible land use patterns, with particular emphasis on infrastructure planning.*

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## **How can I help?**

Historically, the citizens of the town of North and Orangeburg County and the personnel of North AAF and Charleston AFB have worked together in cooperative and harmonious efforts to better serve the needs and desires of all concerned. We have collectively found solutions that have maximized the benefits of North AAF while minimizing annoyances. If the future of North AAF is to be as bright as its past, the citizens of the North AAF environs need to participate in achieving a suitable resolution of our mutual concerns. We request your careful and considered review of the recommendations contained in North AAF's 1993 AICUZ report.

## **Who prepared the AICUZ study?**

The AICUZ report was developed by many concerned people at Charleston AFB under supervision of Headquarters United States Air Force and Headquarters Air Mobility Command. The complete report is available at Charleston AFB from the Public Affairs Office, and copies have been placed in local public libraries and are on file with the Orangeburg County Recorder. Only the major points of the complete 1993 AICUZ report are included in this brochure.

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