



### What is AICUZ?

The Air Installation Compatible Use Zone (AICUZ) Program concerns people and their comfort, safety, and protection. This pamphlet briefly summarizes the 2011 *Air Installation Compatible Use Zone Study for Little Rock Air Force Base*, which is an analysis of the effects of aircraft noise, accident potential, land use compatibility, and planning guidelines for present and future neighbors of Little Rock Air Force Base (AFB).

### Is there a problem?

Military airfields attract development to adjacent areas. In the absence of controls to ensure compatible land use, inappropriate uses might be made of property near or adjacent to an installation that could eventually cause conflicts between flight operations and surrounding landowners. Because land close to Little Rock AFB is subject to aircraft noise and the potential for aircraft accidents, certain types of development are not suitable.

### What has been done?

Little Rock AFB strives to be a good neighbor by restricting flying activities that could adversely affect its neighbors. For example, most departures and arrivals are conducted between the hours of 7:00 a.m. and 10:00 p.m. when expected noise disruptions are less than they would be during the night. 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. The installation has demonstrated a spirit of cooperation by participating with communities in the area-wide planning process.

The State of Arkansas has restricted land uses for property near military installations since 1995; the law was recently updated in 2005 (Act 540 of 2005, implemented via Arkansas Code 14-56-426). To comply with state law, the cities of Jacksonville and Sherwood established AICUZ overlay zones to restrict future land uses that might be hazardous to aircraft operations. Continued cooperation between Little Rock AFB, local governments, and the local populace will further reduce potential land use conflicts.

### What are the benefits?

In addition to protecting public safety and health, the primary benefits of incorporating AICUZ guidelines into local planning include protecting the taxpayer's investment in national defense provided by Little Rock AFB and protecting economic benefits to the neighboring communities generated by installation activities and employment. The local economy benefits from Little Rock AFB expenditures for salaries, contracts, construction, retirement pay, Impact Aid to schools, health insurance payments, and off-installation accommodations for travelers. Little Rock AFB employs about 7,300 people, which includes Active-Duty, Reserve, and Guard members; civilians; and contractors, with a collective \$358 million annual payroll. Additionally there are about 40,000 retirees and family members. As the largest employer for the City of Jacksonville, Little Rock AFB generates a \$609 million economic contribution in this region.

### Why AICUZ now?

The 2011 AICUZ Study addresses the changes that have occurred since the last AICUZ Study in 2003. Differences between the 2003 AICUZ Study and the 2011 AICUZ Study are attributable to the following:

- Changes in assigned and transient aircraft operations since the 2003 AICUZ Study
- The implementation of the 2005 Base Realignment and Closure actions at Little Rock AFB
- Modifications to the Department of Defense- (DOD) approved NOISEMAP software program made subsequent to the release of the 2003 AICUZ Study.

The area surrounding Little Rock AFB continues to experience growth. Information provided in the 2011 AICUZ Study is intended to offer assistance to those planning the future of the neighboring communities. By using the 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 the missions at Little Rock AFB.

### What does AICUZ mean to me?

The purpose of the AICUZ Program is to protect public safety and health, and the national defense mission of the U.S. Air Force (USAF). The AICUZ Program consists of many factors including the Day-Night Average Sound Level (DNL) metric, aircraft flight paths and altitudes, and accident potential zones (APZs). Noise zones and APZs reflecting 2011 current conditions are displayed in **Figure 1**.

The AICUZ Program uses the DNL metric developed and approved in the early 1970s by the U.S. Environmental Protection Agency to describe the noise environment. The AICUZ Study contains DNL noise zones plotted in increments of 5 A-weighted decibels (dBA), ranging from 65 dBA up to 80+ dBA DNL.

The APZs are based upon statistical analysis of past DOD aircraft accidents. APZs consists of a clear zone (CZ), APZ I, and APZ II (see **Figure 1**). The CZ, the area closest to the runway end, is potentially the most hazardous. The overall risk is high enough that DOD generally acquires the land through purchase or easement to prevent development. APZ I is an area beyond the CZ that possesses a significant potential for accidents. APZ II is an area beyond APZ I having a lower, but still significant, potential for accidents. While the aircraft accident potential in APZs I and II does not warrant land acquisition by the USAF, 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 DOD have identified for height limitations for structures. USAF obstruction criteria are based upon those contained in Federal Aviation Regulation Part 77, Subpart C, amended April 1971.

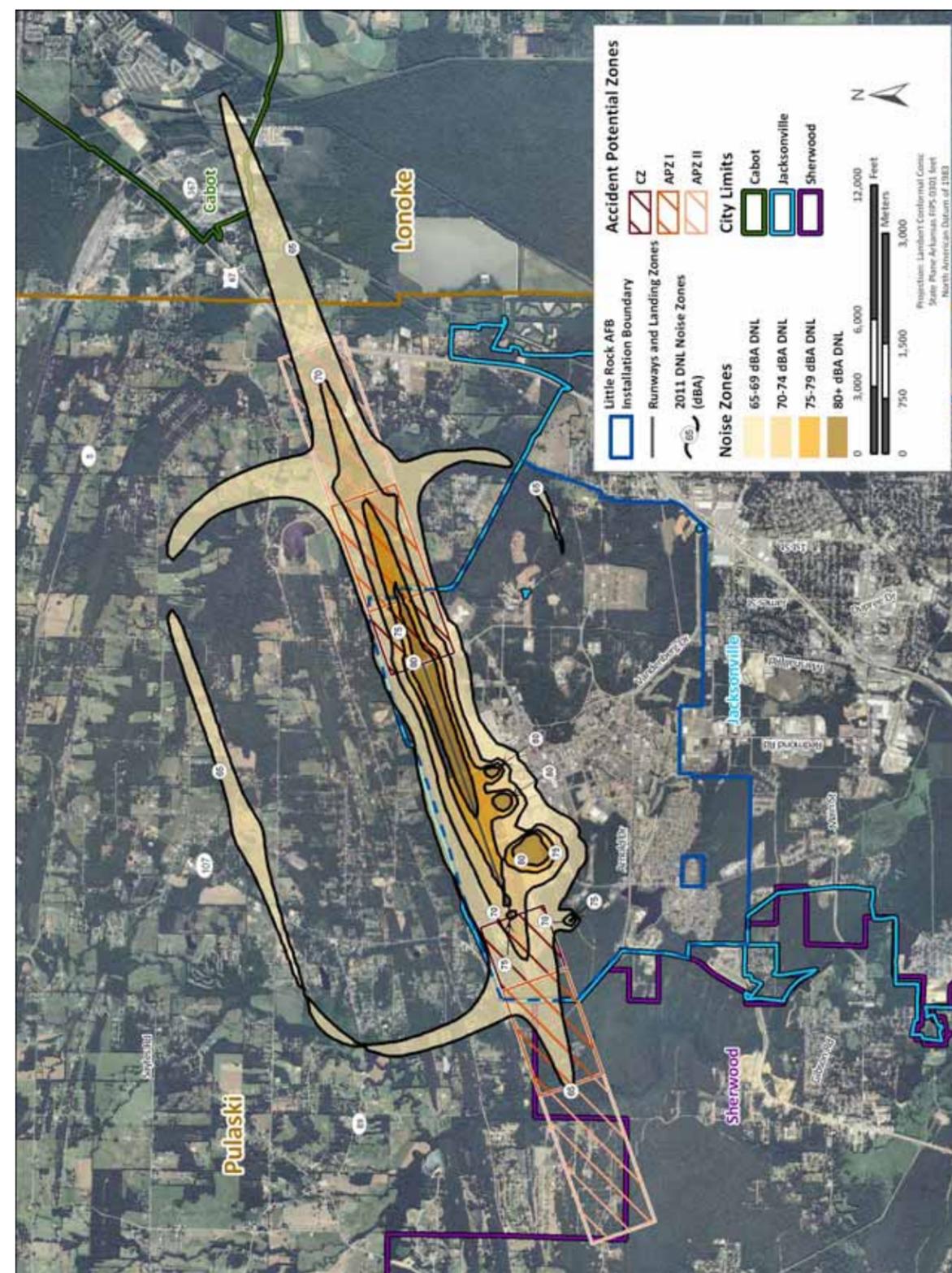


Figure 1. 2011 DNL Noise Zones and Accident Potential Zones at Little Rock AFB



**Table 1** provides a quick reference of compatible land uses within the various noise zones and APZs around Little Rock AFB. For additional details on the land use compatibility guidelines presented in this table, please refer to **Section 3** of the 2011 AICUZ Study for Little Rock AFB, which includes a more comprehensive summary of land use compatibility with respect to aircraft noise and accident potential.

**How can I help?**

Historically, the citizens in the communities surrounding Little Rock AFB have worked together with the USAF and local municipalities in cooperative efforts to plan land use to better serve the community and the installation. If Little Rock AFB's future is to be as bright as its past, continued involvement by the citizens from the surrounding communities is needed to ensure solutions best address mutual concerns. In brief, the following recommendations are contained in the 2011 AICUZ Study:

- (a) Local governments should formalize procedures regarding the avoidance of planning and zoning activities that have the potential to be incompatible with aircraft operations at Little Rock AFB. This could include establishing a Little Rock AFB representative as an ex officio on city or county planning commissions.
- (b) The AICUZ overlay district regulations implemented by the cities of Jacksonville and Sherwood should continue to be applied and enforced to regulate potential development within the APZs.

- (c) Arkansas Code 14-56-426 (Act 540 of 2005) should be expanded to include any city or county affected by noise greater than 65 dBA DNL or accident potential from a USAF installation. This would extend the land use restrictions provided by the Jacksonville and Sherwood AICUZ overlay districts to all the areas affected by Little Rock AFB aircraft operations (the City of Cabot and Lonoke and Pulaski counties), thereby maintaining the installation's ability to fulfill its mission requirements.
- (d) Community planners from Pulaski, Lonoke, and White counties should consider the recommendations of this AICUZ Study when they are developing their land use plans and zoning regulations.
- (e) Several currently vacant areas in close proximity to Little Rock AFB are identified as available for residential development by the cities of Jacksonville and Sherwood. It is recommended that the cities consider the USAF land use compatibility guidelines in relation to DNL noise zones and APZs when developing these areas.

**Who prepared the AICUZ Study?**

The AICUZ Study was developed by many people at Little Rock AFB under the guidance of Headquarters USAF, Headquarters Air Mobility Command, and the Air Force Center for Engineering and the Environment. The complete AICUZ Study is available at the Little Rock AFB Public Affairs Office or by calling 501-987-3601. Copies have also been placed at the Esther Dewitt Nixon Library in Jacksonville, the Amy Sanders Library in Sherwood, and the Arlene Cherry Memorial Library in Cabot, Arkansas.

**Table 1. Land Use Compatibility Guidelines**

General Land Use	Accident Potential Zones			DNL Noise Zones			
	CZ	APZ I	APZ II	65-69 dBA	70-74 dBA	75-79 dBA	80+ dBA
Commercial	No	Yes <sup>1</sup>	Yes <sup>1</sup>	Yes	Yes <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Industrial	No	Yes <sup>1</sup>	Yes <sup>1</sup>	Yes	Yes <sup>2</sup>	Yes <sup>2</sup>	Yes <sup>2</sup>
Open Space/Low Density	Yes <sup>3</sup>	Yes	Yes	Yes <sup>4</sup>	Yes <sup>4</sup>	Yes <sup>4</sup>	Yes <sup>4</sup>
Public/Semi-Public Services	No	No <sup>5</sup>	No <sup>5</sup>	Yes <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>	No
Recreational	No	Yes <sup>6,7</sup>	Yes <sup>7</sup>	Yes	Yes <sup>2</sup>	Yes <sup>2</sup>	No
Residential	No	No	No <sup>8</sup>	No <sup>4</sup>	No <sup>4</sup>	No	No

For additional details on the land use compatibility guidelines presented in this table, please refer to the 2011 AICUZ Study for Little Rock AFB, which includes a more comprehensive summary of land use compatibility with respect to aircraft noise and accident potential.

- Notes:
1. Within each land use category, uses exist where further deliberating by local authorities could be needed due to the variation of densities in people and structures. Shopping malls and shopping centers are considered incompatible use in any accident potential zone (CZs, APZ I, or APZ II).
  2. Measures to achieve noise level reduction should be incorporated into the construction of the portions of these buildings where there are public facilities, office areas, or noise-sensitive areas.
  3. Factors to be considered: labor intensity, structural coverage, explosive characteristics, and air pollution.
  4. Measures to achieve outdoor to indoor noise level reduction need to be incorporated into the design and construction of structures. Noise level reduction will not eliminate outdoor noise problems. However, building location and site planning, and design and use of berms and barriers can help mitigate outdoor exposure. Measures that reduce outdoor noise should be used whenever practical in preference to measures that only protect interior spaces.
  5. Low-intensity uses only. Educational services, hospitals, nursing homes, churches, and cultural activities are incompatible.
  6. Facilities must be low-intensity. Clubhouse not recommended.
  7. Areas for gatherings of people are not recommended.
  8. Suggested maximum density of 1 to 2 dwelling units per acre, possibly increased under a Planned Unit Development where maximum lot coverage is less than 20 percent.



**CITIZEN'S BROCHURE**  
for the  
**Little Rock Air Force Base**  
**Air Installation Compatible Use**  
**Zone (AICUZ) Study**

**Headquarters Air Mobility Command**



**June 2011**