5. AICUZ STRATEGIES AND RESPONSIBILITIES

The AICUZ Program was developed to describe current air operations and, in some cases, possible future operations scenarios. This AICUZ Study provides the best source of information to ensure land use planning decisions made by the local municipalities are compatible with a future installation presence.

Implementation of the AICUZ Study must be a joint effort between the USAF and adjacent communities. The USAF's role is to minimize the noise impact of Dyess AFB operations on local communities. The role of the communities is to ensure the longevity of the installation mission by incorporating the information presented in this AICUZ Study into local zoning regulations and building codes.

5.1 Future Missions

A proactive program that considers "the way ahead" is always more successful than one based on a reactionary approach.

The AICUZ noise zones provided in this AICUZ Study describe the noise characteristics of a specific operational environment and can change if aircraft operations increase or decrease or with changes in the Dyess AFB mission. DOD recommends that this AICUZ Study be used with all other planning data in an effort to make good land use planning decisions. Therefore, specific land use control decisions should not be based solely on the noise zone boundaries presented in this AICUZ Study. Should a new mission be established that adds a larger number of airplanes or different aircraft types at Dyess AFB, this AICUZ Study would likely need to be updated. **Section 3.2.3** offers a hypothetical example of an operational increase.

No increase in the number of aircraft assigned to Dyess AFB is projected at this time; therefore, there are no known additional changes to the current flying mission or related flying activity. This AICUZ Study would potentially need to be updated if any new mission is proposed at Dyess AFB.

5.2 Land Use Controls

Three types of land use controls have been developed in order to minimize conflicts between military and civilian airfields and nearby communities: compatible zoning, building code modifications, and aviation easements. These are controls that local planners and zoning commissions can employ to protect an installation against further encroachment by incompatible development and future conflicts with aircraft activities. Dyess AFB is an important contributor to the adjacent communities' economic well-being and support from local communities is critical to the installation's continued operation.

5.2.1 Compatible Zoning

Proper zoning can facilitate compatible future land use development. Zoning can ensure that the land uses of a community are properly situated in relation

to each other, and zoning is the most commonly used legal device for implementing land use plans. Zoning changes can support airport compatibility by directing new growth into compatible areas and thus prevent the future development of noise-sensitive land uses in AICUZ environs. Areas within the AICUZ environs that currently contain incompatible uses could be re-zoned to more compatible categories, such as commercial or industrial.

A variety of Federal, state, and local legislative and policy programs allow Dyess AFB staff to monitor and help direct development around the installation.

Because of the relative impermanence of zoning regulations, continuous monitoring is necessary to preclude the encroachment of incompatible development into undeveloped areas within the AICUZ environs. Zoning that achieves compatibility will be subject to continued pressure for change. Appropriate zoning changes can increase the value of land within noise–affected areas, promote compatibility, and leave land in private ownership on the tax rolls for an economically productive community.

5.2.2 Building Code Modifications

Building codes can ensure that the structural requirements for a safe building are met. Local codes can address the noise levels to which the structures are subjected. The general objective is to achieve a maximum interior noise level of 45 dBA or lower. Codes can include acoustical treatment standards for new or modified noise-sensitive structures and sound-attenuating construction techniques. Building code modifications can also establish sound insulation standards, such as wall insulation values, double-pane windows, and roof insulation.

Local jurisdictions are responsible for modifying community building codes or adopting a state building code that includes provisions for soundproofing structures impacted by aircraft noise. Provisions for building code modifications, to include sound insulation from exterior noise sources, require local legislation and enforcement by building inspectors. Additional sound insulation can slightly increase the cost of the construction but provide significant benefits.

Building codes, residential standards, and zoning within the Dyess AFB environs should be modified to address AICUZ development concerns with respect to the AICUZ Program and the noise zones presented in this AICUZ Study. The majority of the land that is zoned within the 2007 noise zones is within the City of Tye. The City of Tye does not currently have an established building code or residential standards (Shipp 2008b). The City of Abilene currently uses the 2003 International Building Code, which does not include NLR measures (Sartor 2008). Zoning and building standards can require the incorporation of NLR measures for construction potentially affected by aircraft noise beyond established threshold levels and limit the types of land uses allowed in areas impacted by noise and accident potential, as previously described. Adoption and strict enforcement of these ordinances by local governments can effectively limit incompatible land uses. Land use density restrictions can also be amended to curtail incompatible development within Dyess AFB APZs.

The 2005 U.S. Navy *Guidelines for Sound Insulation of Residences Exposed to Aircraft Operations* (U.S. Navy 2005) provides a comprehensive overview of sound insulation techniques for homeowners and builders who are concerned with modifying an existing residence or constructing a new residence that incorporates sound insulation principles. A typical home built with standard design and materials might provide 20 to 30 dBA of NLR from military aircraft noise exposure. In contrast, an acoustically well-insulated home can provide 30 to 35 dBA of NLR. Providing more than 35 to 40 dBA of NLR is not usually practical for a residence. Please see **Appendix E** for more information on these guidelines.

5.2.3 Aviation Easements

As part of the AICUZ Program, the USAF received congressional authorization for property acquisition in the CZs. Real property interests are acquired by fee or easement giving the installation control over the use of the property. The Dyess AFB CZs are mostly within the installation boundaries to the north. However to the south, there is agricultural land use inside the CZ to the east and south and mixed land use to the west. Compatible land use controls for the remaining airfield environs should be accomplished through the community land use planning processes.

5.3 USAF Responsibilities

In general, the USAF perceives its AICUZ-related responsibilities as encompassing the areas of flying safety, noise abatement, and providing information to aid local governments implementing their land use planning processes.

Well-maintained aircraft and well-trained aircrews do much to ensure that aircraft accidents are avoided; however, history demonstrates that accidents do occur. In an effort to reduce the exposure of lives and minimize damage to property, overflights of populated areas are avoided whenever possible.

USAF regulations require commanders to periodically review existing air traffic patterns, instrument approaches, minimum weather conditions under which aircraft can use the airfield (e.g., visibility, ceiling), and operating practices, and to evaluate these factors in terms of their potential to affect populated areas and potentially increase surrounding incompatible land uses. In order to satisfy this requirement, all AICUZ studies must include an analysis of flying and flying-related activities designed to reduce and control the effects of such operations on surrounding land areas.

Dyess AFB is sensitive to community concerns regarding noise exposure. Flight tracks are normally routed to avoid the heavily populated area east of the installation.

The preparation and presentation of this Dyess AFB AICUZ Study is one example of the USAF providing information to assist local governments in implementing their planning process. It is recognized that as local communities update their land use plans, the USAF must be ready to provide additional inputs.

It is also recognized that the AICUZ Program will be an ongoing activity even after compatible development plans are adopted and implemented. Installation personnel are prepared to participate in the continuing discussion of zoning and other land use matters as they might affect, or be affected by, Dyess AFB. Installation personnel are available to provide information, criteria, and guidelines to state, regional, and local planning bodies; civic associations; and other similar groups.

5.4 Local Community Responsibilities

The residents of the cities of Abilene and Tye and Jones and Taylor counties have a long history of working together with personnel from Dyess AFB. Adoption of the following recommendations during the revision of relevant land use planning or zoning regulations will strengthen this relationship, increase the health and safety of the public, and help protect the integrity of the installation's flying mission.

- The cities of Abilene and Tye have incorporated elements from the 2000 AICUZ Study into their land use plans and zoning regulations. Community planners should continue to use the recommendations of the AICUZ Study. In addition, planners should consider additional guidelines suggested in this AICUZ Study.
- The City of Tye is encouraged to implement height and obstruction ordinances that reflect current USAF and 14 CFR Part 77 requirements.
- Enact fair disclosure ordinances to specify disclosure to the public for those AICUZ items that directly relate to aircraft operations at Dyess AFB.
- The City of Tye is encouraged to enact building/residential codes to ensure that new construction in the vicinity of Dyess AFB has the recommended NLR measures incorporated into the design and construction of structures.
- Local governments should formalize procedures regarding planning and zoning activities that have the potential to be incompatible with aircraft operations at Dyess AFB. These procedures could include the creation of a working group representing city planners, county commissioners, and Dyess AFB to discuss AICUZ concerns and major development proposals that could affect Dyess AFB operations.
- Carefully review capital improvement programs to discourage incompatible land use patterns, with particular emphasis on utility extension planning.