

# aviation and development

## LIVING TOGETHER

By William H. Hoge



The A-10 Warthog is one of the frequent uses of Poinsett ECR. A major portion of its range activity centers on the 30 MM Tank-killer Gun.

In the 1940s and 1950s, the United States experienced the major introduction of the airplane into everyday life. First came military aviation in World War II and that was followed by the great expansion of the airline industry in the 1950s with the introduction of the jet passenger aircraft and the Boeing 707. To accompany that major expansion in both areas, airfields had to be constructed throughout the country.

## RETAINING MILITARY ACTIVITY WHILE ENSURING REGIONAL ECONOMIC EXPANSION

The article highlights the steps taken over time by one community to ensure that aviation and development can live and grow together for the benefit of all for many years. It is intended to offer ideas to other communities with aviation and development a method to ensure they can enjoy similar compatibility of land uses and prosperity for many years. This shows a city and county where government has helped the economic growth of the entire community for over 20 years and has procedures in place for continued prosperity.

Airfield expansion was tremendous in the country during World War II. Training bases were built from the Atlantic to Pacific coasts in the southern tier of states where good weather year round and low-density populations permitted the hundreds of thousands of training sorties needed to support the war. After World War II, many of those airfields were closed for military use and transitioned to civilian use. Finally, the 1950s saw the construction of additional civilian fields to support the growing airline industry. They, like many of the World War II airfields, were constructed away from population centers to allow flying operations and minimum impact on the local residents.

## NATIONAL AIRFIELD EXPANSION WITH CHANGING LOCAL GROWTH PATTERNS

Shaw Air Force Base (AFB) in Sumter, South Carolina, is one of those World War II airfields that was built to support training. However,

unlike hundreds of others that closed at the end of the war, Shaw AFB (then Shaw Field) remained active and does so even today. Like so many others, it was built 10 miles from the host city of Sumter and away from the small communities of Stateburg and Wedgefield.

But as so many communities know, times are changing and growth and development are moving away from the core cities to the suburbs where families expect large lots and homes and a quiet, peaceful environment. Sumter and Shaw AFB are no dif-

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ferent in that respect, but over the last 25 years the local governments have taken and continue to take steps so that the *base flying operations and community growth complement each other through compatible land uses and almost daily coordination.*

Before explaining how this has been accomplished, a short description of the base and community are needed:

1. Sumter, SC: This community is located in central South Carolina about 45 miles east of the capital of Columbia. The county had an estimated population of just over 106,000 in 2003 and encompasses about 680 square miles. The city of Sumter is located in the center of the county with a population of just over 43,000 in 2003. The overall population has been growing at just less than 1 percent per year for the past 10 years and is projected to continue at that rate for the next 20 years. Other than Sumter, there are only two small incorporated townships in the county with populations less than 1,000.
2. Shaw AFB is an United States Air Force and Air Combat Command base with over 5,000 military personnel, 1,000 civilian employment (government and contract), one Fighter Wing with 72 assigned F-16s, a Numbered Air Force headquarters, and numerous smaller units. The economic impact based on salaries, contracts, and personnel, including retirees, is about \$800 million per year. This represents almost one-third of the total sales in the local economy.



Shaw AFB is an Air Combat Command base hosting 72 F-16s and over 6000 military and civilian jobs in the Sumter community.

Shaw AFB is the largest employer in the Sumter community and a key to the long term health of the community.

3. Shaw AFB is located 10 miles from downtown Sumter but was annexed into the city in 1989. While in the city, most of the area immediately surrounding the base is in the unincorporated portion of the county. As such, nearby land is controlled by two local governments.

As many as 25 years ago, local residents and government officials recognized two major facts. First, Shaw AFB is a major part of the entire community, especially its economic stability. Second, steps needed to be taken to protect local flying operations and local citizens. Both of those items remain very true today and into the foreseeable future. Added to those two items is the continued study by the federal government of all military bases for consolidation of operations and it is easy to see that local government has and continues to face major challenges in keeping Shaw AFB as a major part of the local community.

So what actions have Sumter City and County Councils taken to insure that aviation and development can live together?

## AIRFIELD SAFETY AND ENCROACHMENT

In the early 1980s, safety was recognized as the major issue – encroachment would come later! Sumter County Council took three steps to address the issues between 1972 and 1986:

1. **Established base/community coordination:** Having a single, joint Planning Commission and staff for the city and county, a Memorandum of Understanding was signed with Shaw AFB to have a base community planner involved in all local actions. This continues today with a full exchange of information.
2. **Established Obstruction Height Limits Around Shaw AFB and Poinsett Range:** In the early 1980s, the County Council with USAF help adopted height regulations within 10 miles of the base that would ensure structures would not be built that would interfere with an instrument approach or local flying operations. This part of the county code continues today.
3. **Added Airfield Landing Zone to the County Zoning Ordinance:** About the same time, based on Air Installation Compatibility Use Zone data and advice from the base planner, the Zoning Ordinance had the first Clear Zone and Accident Potential areas added. These are zones aligned with the base runways, extending out to 15,000 feet and 2,000 feet either side of the center of the runways. There were no noise zones included with this action as its primary intent was safety from aircraft accidents.

## COUNTY-WIDE LAND USE ZONING TO PROTECT SHAW AFB

A brief mention must also be made of another significant change that occurred in 1991. Prior to that year, active zoning was only present within the city limits of Sumter and within a three-mile jurisdiction just beyond the city limits. In 1991, Sumter County Council adopted full, county-wide zoning. Sumter was one of the first counties in South



*Shaw AFB is home to the 20th Fighter Wing and 72 F-19CJs. Flying operations are five days a week with 25% of the flying at night.*

Carolina to take such action, and it was supported by most of the citizens as they recognized this action was directly related to Shaw AFB.

As part of the continuing and evolving process to keep the base and community growing together, additional changes were made in 1993 and 1994 that directly improved compatibility. In 1993, a grant from the Office of Economic Adjustment (OEA) in the Office of the Secretary of Defense was used to hire a contractor to conduct a Joint Land Use Compatibility Study (JLUCS). Based on that study, Sumter city and county modified each zoning ordinance to create an Airfield Compatibility District (ACD). The ACD was based on USAF studies and the Airfield Installation Compatibility Use Zone document for Shaw AFB. Essentially, the ACD formalized the Clear and Accident Potential Zones. For each of those zones, development rules, land uses, and densities were established by the local governments and administered by the Planning Commission for all construction and business licenses. Additionally, the first noise contours were established around the airfield and noise reduction standards were put into place for all new construction and major additions.

Most recently, the two councils have, for the first time, identified compatible land uses directly related to military operations in the comprehensive plan, added a similar Compatibility District around Poinsett Electronic Combat Range (ECR) and refined the ACD rules to ensure more safety and reduce noise issues.

Of those three actions, the comprehensive plan action is the most significant. Until 1999, neither council had adopted a comprehensive plan and map. Based upon the 1994 South Carolina Planning Enabling Act, both councils adopted com-

prehensive (long range) plans and maps in 1999. But, the plans did not directly identify the base or range for areas to control development and land uses to ensure compatibility.

Based on growth, developer comments, and growing concern of possible encroachment, the Planning Commission developed and forwarded to both councils, a text and map amendment that created a Military Protection District (MPD) around Shaw AFB and Poinsett ECR. The comprehensive plan map now shows those areas for all to see and the text clearly defines the purpose and objective of the Military Protection District. Additionally, future rezoning in those MPDs is limited to uses that are compatible with airfield operations and control use and residential density. Now all understand the community goal of compatible land use!

#### **NEW JOINT LAND USE STUDY**

The city and county's collective land use planning process also prompted a new Joint Land Use Study, also funded in part by a grant from the DOD Office of Economic Adjustment, which focused on Poinsett ECR. Based on the new study, a Range Compatibility District (RCD) was established around the range with identical rules to the ACD (noise contours are present but not Clear or Accident Potential Zones). With the Range Compatibility District, the planning staff can take similar steps to implement land use rules and noise attenuation to ensure good neighbors.

#### **NEW AIRFIELD COMPATIBILITY DISTRICT (ACD) APPROACH**

Finally, two sections of the ACD were modified. First, until this change, single family dwellings (site built and manufactured homes) were permitted in

the Accident Potential Zone II. Both councils changed the Zoning Ordinances to not allow any residential uses in the APZ II, with a minor concession to fully existing developments.

Second, after consultation with local dealers and the Manufactured Housing Institute of South Carolina, manufactured housing may no longer be placed within the noise contours for Shaw AFB as established in the ACD. This change was made since noise reduction construction standards were put in place at the local level that can be enforced for new site built homes by the Building Official but the same can not be done for manufactured housing since its construction is controlled by HUD.

### **SUMTER-SHAW PLANNING PROCESS ENSURES THAT AVIATION AND DEVELOPMENT GROW TOGETHER**

All of this history brings us to the present and how these plans, maps, and ordinances are used to ensure aviation and development can exist and grow together.

The Sumter Planning Commission (still a joint city-county agency) is responsible for the implementation of the Comprehensive Plan and Map, and enforcement of the two Zoning Ordinances. As a matter of note, while there is a single Planning Commission and Staff, the City and County each have their own Comprehensive Plan and Zoning Ordinance. However, the maps tend to be seamless at the city limits and the Zoning Ordinances are 95 percent the same.

Principle enforcement of the ACD and RCD is through the review of applications and approval of building permits, surveys of property (plats), and business licenses. Each of the above is reviewed for compliance with all aspects of the Zoning Ordinance including noise reduction. Each building permit and plat is stamped with a special notice of the fact that the structure or property is in or near a noise hazard area.

Business licenses serve as an additional check of density of people as uses change for an existing building. If a use does not comply with the current zoning in the area and a rezoning is requested, the



*Shaw AFB defending the nation and New York City as part of Operation Noble Eagle.*

first step for the staff in this case is a review of the Comprehensive Plan – If the request does not comply with that plan, then denial of the request must be recommended and the appropriate council shall not change the zoning unless they are first willing to change the Comprehensive Plan; something both councils have been reluctant to do until the required five-year review by state law.

The other area for review is a requested variance to the zoning and development regulations. As with most communities with zoning, Sumter has a Zoning Board of Appeals. For requests inside the ACD or RCD, the request is also forwarded to the installation commander (20th Fighter Wing Commander) at Shaw AFB for comment. That comment and installation personnel then are

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included in all hearings to include a required public hearing at the Zoning Board of Appeals for variances.

Besides normal enforcement actions, the Planning Commission uses the above material in at least two ways for community education. First, staff representatives routinely present briefings to major real estate agent meetings and companies. Real estate agents tend to be the first way that new people are made aware of the ACD and RCD. Second, the city of Sumter web site ([www.sumter-sc.gov](http://www.sumter-sc.gov)) maintains current copies of the comprehensive plan and map, zoning ordinances, and all local maps (zoning, city limits, ACD, and RCD).

### STATE-LOCAL INFRASTRUCTURE IMPROVEMENTS SERVING SHAW AFB AND THE COMMUNITY

Since 1996, the state of South Carolina has been generous in its support to Shaw AFB. It has funded a highway overpass to improve safety and access to the main gate in 2000 at a cost of \$2,684,845; constructed Patriot Parkway, linking the base with major residential areas of Sumter in 2000 at a cost of \$9,530,155; and closed Frierson Road between the base and the base housing area to improve security in 2002.

### CONCLUSION – SUMTER AND SHAW GROWING AND PROSPERING TOGETHER

As the Sumter-Shaw community enters 2005 and prepares for at least the next 20 years, the local governments have put in place a series of plans, maps, ordinances, and regulations that will guide aviation and development to live and prosper together. It has been accomplished through strong cooperation between the base and local governments and highlighted by the two councils enacting the same rules so that annexations change no rules (Since the zoning districts have the same standards, an annexation does not change rules or standards for the property.).

Shaw and Sumter have set an example for counties across the United States to follow for any aviation facility and any development to grow together. The City of Sumter web site ([www.sumter-sc.gov](http://www.sumter-sc.gov), departments, planning, then Ordinances and Maps) features the actual documents and maps described in the article.

#### ACRONYMS

<b>ACD</b>	AIRFIELD COMPATIBILITY DISTRICT – Zoning Ordinance Overlay District
<b>AFB</b>	AIR FORCE BASE
<b>DOD</b>	DEPARTMENT OF DEFENSE
<b>ECR</b>	ELECTRONIC COMBAT RANGE
<b>JLUCS</b>	JOINT LAND USE COMPATIBILITY STUDY
<b>JLUS</b>	JOINT LAND USE STUDY
<b>MPD</b>	MILITARY PROTECTION DISTRICT- Comprehensive Plan Area
<b>OEA</b>	OFFICE OF ECONOMIC ADJUSTMENT
<b>RCD</b>	RANGE COMPATIBILITY DISTRICT – Zoning Ordinance Overlay District
<b>USAF</b>	UNITED STATES AIR FORCE