



# Sumter-Shaw Air Force Base *Joint Land Use Study* *Executive Summary*

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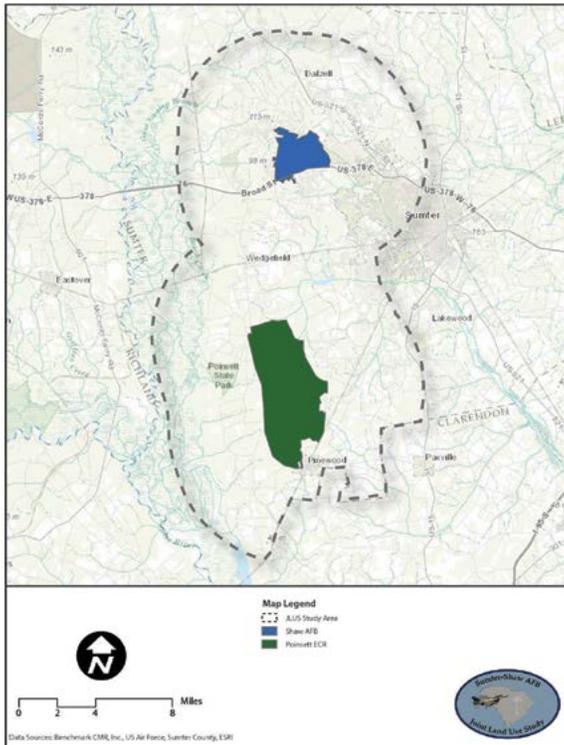
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## EXECUTIVE SUMMARY

### WHAT IS A JOINT LAND USE STUDY?



A Joint Land Use Study (JLUS) is a collaborative planning process that involves local military installations, the civilian community, and relevant city or county jurisdictions. These studies are used around the country to create dialogue between military installations and their neighboring communities about how to promote compatible land uses around the installation. JLUS's are not zoning codes or regulations; therefore, implementation of any recommendations is not enforceable without action by the local community to adopt regulations, agreements, comprehensive plan policies, and other documents identified in the study. A JLUS simply seeks to identify and assess the various tools and strategies available to a community, serving as a guide for future decision-making.

The Sumter City-County Planning Commission sponsored the Sumter-Shaw JLUS. The project was made possible with funding from the Department of Defense's Office of Economic Adjustment (OEA), and a financial contribution from the local community. White and Smith Planning & Law Group worked with partners Benchmark Planning and Marstel-Day, LLC to complete the study between October 2015 and September 2016.

A collaborative effort among Shaw Air Force Base (Shaw AFB), Poinsett Electronic Combat Range (Poinsett ECR), Sumter City-County Planning Commission, Sumter County, the City of Sumter, and other affected stakeholders in the community provided the foundation for this report. While guidance from a Policy Committee and a Technical Advisory Committee informed the recommendations, the final result would not have been possible without full engagement from local stakeholders, the general public, as well as local, regional, and state representatives.

### GOALS AND OBJECTIVES OF THE SUMTER-SHAW JOINT LAND USE STUDY

There is a long history of collaboration among Shaw AFB, Poinsett ECR, and the local Sumter community, including the completion of previous joint land use studies, in 1993 and 2002. The primary goal of this JLUS is to further support the preservation of long-term land use compatibility between Shaw AFB and Poinsett ECR, and the surrounding communities. The JLUS process has been used nationwide and communities generally find that the process, as well as the implementation of subsequent recommendations, is mutually beneficial to military installations and to the local community. An updated JLUS benefits Shaw AFB and Poinsett ECR by helping the Installations mitigate operational impacts, such as noise, or non-compatible land uses in their vicinity, especially as Air Force missions and aircraft types change over time. The study

also benefits the local community by providing it with tools and strategies that can be implemented to help reduce impacts on citizens and address incompatibilities, while also continuing to support the mission and operations at the Installations.

The primary objectives of Joint Land Use Studies are to:

1. **Increase Awareness.** Increased community awareness of Shaw AFB and Poinsett ECR's operations and, for the Air Force, awareness of anticipated land use patterns on nearby civilian lands, increases communication and understanding as the community and installations interact in the future. The JLUS process, therefore, involved twelve months of collaborative planning by Air Force officials, City and County governments, and members of the public and private sectors. The planning process involved an extensive review of background information and increasing community awareness of the role Shaw AFB and Poinsett ECR play, the impacts they have on the community and, of course, the impacts the community can have on the Air Force.
2. **Encourage Collaboration.** The ability for a community to maintain land use compatibility is enhanced by collaborative decision-making related to land use and Air Force operations. This community already has a long history of collaboration. As a result, it has a very good understanding of the compatibilities of civilian lands near Shaw AFB and Poinsett ECR and current Air Force operations. This study, therefore, simply builds on the tools and processes for maintaining collaboration between the Air Force installations and its community partners once the JLUS is completed.
3. **Maintain Land Use Compatibility.** The compatibility tools recommended by the JLUS Policy Committee range from simply formalizing existing coordination processes to amending existing local government regulations to supplement compatibility or to prepare for potential future Air Force operations. These recommendations are options for the local community to evaluate and are not mandated, per se. Regardless, enhanced awareness of the impacts military and civilian land uses have on one another and increased collaboration "across the fence," provides a foundation for ongoing land use compatibility. This, in turn, protects the Air Force's ability to operate in the region.

The JLUS process differs depending on the community and study area. The objectives of the Sumter-Shaw JLUS process are to maintain the collaborative, inclusive approaches to land use planning in the areas near Shaw AFB and Poinsett ECR, to prepare for compatible land use in the face of growth in the region, and to minimize associated conflicts. Additionally the JLUS process also aims to support local economic vitality and opportunities related to the Installations, to protect the quality of life in surrounding communities, and to sustain the long-term mission at both installations.

## WHAT IS HAPPENING IN THE VICINITY OF SHAW AFB AND POINSETT ECR?

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Shaw Air Force Base is a major site for supporting the overall Air Force mission. The base hosts the 20th Fighter Wing (20 FW), which is the largest F-16 combat unit in the entire Air Force. Current operations conducted with the 20 FW include Counterair Operations and Counterland Operations within active combat zones around the world. Airmen are deployed from the site regularly in support of military operations with a primary mission of suppressing enemy air defenses. The Ninth Air Force and U.S. Air Force Central (USAFCENT) reside at Shaw AFB and are responsible for organizing, training, and equipping Airmen to meet the demands of contemporary and future warfare operations, as well as ensuring agile combat support capabilities. The U.S. Army Central Command (USARCENT) is also located at Shaw AFB.

Furthermore, Shaw AFB operates Poinsett Electronic Combat Range (ECR) that serves as a combat training environment for all branches of the military throughout the southeastern United States. A Multiple Threat Emitter System (MUTE) is used in both aircraft- and ground-related training activities such as practice targeting, evasion, and simulation of enemy systems. There is restricted airspace above Poinsett ECR in order to provide open training airspace for participating aircraft.

The Air Force has selected Shaw AFB as one of the potential active-duty east coast operational locations for the new F-35A fighter jets. Though no decision had been made as of the time of the 2016 JLUS, there are multiple proposed scenarios for potential arrivals of the F-35As, all of which support continuation of the current primary mission of the site. If Shaw AFB receives the F-35A, overall airfield operations are expected to decrease. The usage of Poinsett ECR is also expected to change. For example, additional airspace for the F-35As may be necessary to continue operations of Poinsett ECR at its current levels.

Most of the land surrounding Shaw AFB and Poinsett ECR, especially to the west, is considered compatible with the Air Force training and mission operations. This land is made up of primarily agricultural and low-density residential uses. Land uses to the north, east, and south of the Installations are more diverse, and do contain some areas that are considered incompatible with current Air Force operations. Demand for residential development is expected to continue near Shaw AFB and Poinsett ECR, even though population growth in Sumter County and the City has been low in recent years.



The largest impacts in the region associated with Shaw AFB and Poinsett ECR are aircraft noises and accident potential. While Shaw AFB and Poinsett ECR maintain a strong relationship with the communities that surround the Installations, this study focuses on understanding current and future operational impact scenarios. This process includes mapping the noise contours generated by training operations at both Installations to determine the extent of potential compatibility issues. Noise-sensitive uses, such as areas with residents or livestock rearing areas, are considered less compatible with the installations. The impacts of operational noises can be mitigated using methods such as sound attenuation construction techniques. The study also assesses the Accident Potential Zones (APZs) and their relation to current and projected uses in the local area. Various scenarios are considered when assessing impacts in the region, including the potential acquisition of the F-35As.

Conversely, civilian land uses surrounding Shaw AFB and Poinsett ECR also can impact Air Force operations. These off-base impacts are minimal around Shaw and Poinsett at this time, but could be worsened by the encroachment of incompatible land uses like the civilian use of Unmanned Aerial Systems (UAS) or widespread urban development or high density subdivisions near the Installations.

The Sumter-Shaw JLUS serves to expand and update the previously conducted joint land use studies in the area by identifying current and future impacts of operations and providing recommendations for moving forward. Through this process, the JLUS will help Shaw AFB, Poinsett ECR, and the local community proactively reduce any negative impacts on one another through continuing to support coordinated planning efforts for compatible land use in the area.

## JOINT LAND USE STUDY: AN OVERVIEW



The JLUS report is divided into five chapters and a series of appendices, each of which are described briefly below.

### **Chapter 1: Purpose and Process**

Chapter 1 explains the goals of the Sumter-Shaw JLUS and the three main components of the process that led to this report. This chapter also provides background information about previous land use studies in the area, as well as an introduction to Shaw Air Force Base, Poinsett Electronic Combat Range, and the local communities.

### **Chapter 2: The Installations and the Community: Current Conditions and the Road Ahead**

Chapter 2 describes how the lands both in and around Shaw AFB and Poinsett ECR are being used, and the

potential for both to experience challenges related to land use compatibility. This chapter also examines how the area's economic, demographic, environmental, and cultural characteristics affect land use.

### **Chapter 3: Land Use Compatibility Analysis**

Chapter 3 examines the impact of Shaw AFB and Poinsett ECR operations on lands within the designated study area, as well as the impacts of future development on the mission at the two Installations.

### **Chapter 4: State, Local, and Federal Tools for Advancing Land Use Compatibility**

Chapter 4 provides an inventory of land use compatibility tools created by Sumter County and the City of Sumter to address impacts within the vicinity of Shaw AFB and Poinsett ECR. This chapter also outlines the authorities of the City and County under state law, which served as the basis for determining recommendations presented by the JLUS Policy Committee in Chapter 5.

### **Chapter 5: JLUS Recommendations**

Chapter 5 identifies the recommendations for enhancing long-term land use compatibility between Shaw AFB, Poinsett ECR, and the local community. The JLUS Policy Committee considers these recommendations important to preserving the working relationship between stakeholders, as well as reflecting a continuously evolving mission at the local Installations. The recommendations are divided into short-, middle-, and long-term timeframes for purposes of implementation.

### **Appendices**

The appendices of this report include public survey results, notes from public meetings, as well as meeting notes from the JLUS Policy and Technical Advisory Committees, all of which contributed significantly to informing the final recommendations. The City and County regulations for Airfield Compatibility, Range Compatibility, and the Noise Attenuation District are also included.



## JLUS IMPLEMENTATION STRATEGIES

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The JLUS Policy Committee identified the strategies and tools available to the City and County, Air Force bases, and other stakeholders to maintain the community's current collaborative approach to compatible land use near Shaw AFB and Poinsett ECR. This JLUS seeks to identify steps that the community could take to maintain existing land use compatibility, address potential incompatibilities, and plan for future cooperation as the Installations and surrounding areas grow in the future.

The JLUS Project Team worked with the JLUS Policy Committee and Technical Advisory Committee to identify these strategies and tools that would protect both local areas and support the broader scale missions of Shaw AFB, Poinsett ECR, and the Air Force as a whole. The values and needs of each community are associated with a particular context and no tool or strategy should be implemented without further public process. The recommendations are organized based on the "procedural context" in which they would be implemented. There are some overlaps of substantive area because of the need to address a certain implementation task within multiple procedural contexts.

The following chart summarizes the implementation tasks recommended for consideration and indicates the relative priority level and expected timeframe within each would be addressed. A description of the seven overarching categories of tools is provided following the chart. The chart and descriptions make up a condensed version of the full "JLUS Implementation Matrix" provided in Chapter 5.

How can Shaw AFB, Poinsett ECR, and the off-base community work together to maintain compatible land use in the region as they face increased urban development and an evolving Air Force mission?

Procedural Context	Relative Priority	Implementation Task	Implementation Timeline		
			0-3 Years	3-10 Years	10-20 Years
Comprehensive Planning	High	Updated Military Protection Area (MPA) Boundaries and Policies	x		
	High	Update Comprehensive Plans related to 2016 Joint Land Use Study	x		
	Low	Small Area Plans	x		
Zoning & General Code Provisions	High	Revise ACD Overlay Noise Zones to reflect F-16 and potential F-35A Operations	x		
	High	Replace current Noise Attenuation (NA) Districts with MPA-2 boundaries and policies	x		
	High	Renewable Energy Projects	x		
	High	Frequency Emissions and Interference Avoidance	x		
	High	Require coordination per State Military Coordination Act	x		
	High	Include Poinsett ECR in Height Restrictions	x		
	High	Incorporate Clear Zones restrictions into Zoning Codes	x		
	High	Noise Zone Restrictions Updated	x		
	High	Non-Conforming land uses, structures	x		
	High	Existing Platted Lots	x		
	High	City-County Code Consistency Review	x		
	High	Add Poinsett ECR to Zoning Codes' Purpose Statements	x		
	Low	Evaluate Effectiveness & Feasibility of a Transferable Development Right Program		x	
Subdivision Regulations	High	Add Poinsett ECR boundaries to Plat Notice Requirements	x		
	High	Plat Acknowledgment Statements	x		
	High	Expand Subdivision Signage for Operational Awareness in MPAs	x		
Notice to Property Owners & Occupants	High	Real Estate Disclosures	x		
	Medium	Expand Road Signage for Operational Awareness in MPAs		x	

Procedural Context	Relative Priority	Implementation Task	Implementation Timeline		
			0-3 Years	3-10 Years	10-20 Years
Interagency Cooperation	High	Appoint JLUS Implementation Committee	x		
	High	Renewable Energy Project Review & Impacts	x		
	High	Sumter School District Coordination/Logistics	x		
	High	Coordinate regarding Proposed Growth-Inducing Infrastructure within the MPAs	x		
	High	Coordinate with the South Carolina Military Base Task Force	x		
	Medium	Community Partnership & Shared Services	x		
	Medium	Coordinate community planning & professional development	x		
	Medium	Land Conservation	x		
Public Outreach & Communication	High	Civilian Unmanned Aircraft Systems (UAS)	x		
	High	Increase Community Awareness of the Air Force Mission	x		
	High	Noise Level Reduction Construction Standards	x		
	High	Radio Frequency Interference Awareness	x		
	High	On-base School Logistics	x		
	High	Dedicated Webpage	x		
	High	Noise Inquiries	x		
	High	Local Business Coordination	x		
Ongoing Planning & Coordination	High	Establish a Military Planning & Coordination Committee (MPCC)	x		
	High	Prepare Military Planning & Coordination Agreement (MPCA)	x		
	High	Prepare MPCC Bylaws	x		
	High	Monitor Status of F-35A Squadrons	x		
	High	Maintain coordination with Santee-Lynches Regional COG	x		
	Medium	Update Noise Contours for Poinsett ECR & Evaluate the Need for Additional Protections		x	
	Low	Monitor Non-Aircraft Military Impacts at Poinsett ECR		x	



## Comprehensive Planning

While the Comprehensive Plans for the City of Sumter and Sumter County outline provisions related to military land use planning and the lands surrounding Shaw AFB and Poinsett ECR, it is recommended that the City and County implement plan-based JLUS recommendations prior to pursuing the regulatory changes suggested in the next section.

The Comprehensive Plan changes could include a reevaluation of the Military Protection Area (MPA) boundaries and policies. The potential arrival of an F-35A squadron, the extent of Poinsett Range Compatibility District, and the need for increased public awareness throughout surrounding areas should be reflected in an amended MPA. The Policy Committee suggests that MPA policies be used to guide future rezoning requests within the MPAs and be reflected in City and County regulations. In addition, it is recommended that the small area plans policy be removed and that the recommendations of the JLUS be integrated into the plans instead.

## Zoning and General Code Provisions

The JLUS Policy Committee suggests that the City and County update various zoning maps and codes in order to facilitate existing or anticipated operations, or to clarify existing code provisions. Some recommendations include extending noise overlays that reflect existing and potential noise contours, updating noise attenuation or impact-mitigation requirements, and addressing renewable energy projects. Steps could also be taken to ensure that existing codes are comprehensively enforced as to both Shaw AFB and Poinsett ECR.



While coordination between the Installations and the City and County has occurred naturally over time, the statutory coordination requirements could be formally adopted into relevant sections of the City and County subdivision and zoning codes for both installations. The JLUS Policy Committee also suggests editing regulations to include Poinsett ECR airspace protections, restrictions for off-base lands within Clear Zones (CZs), limited land uses within designated noise zones, and compliance exceptions in order to address non-conforming land uses and structures. The committee recommends that the City-County Code be reviewed for consistency with other guidelines and policies. The language of the purpose and scope of the codes could be clarified to include both Poinsett ECR and Shaw AFB. It may also be helpful to evaluate the effectiveness and feasibility of a Transferable Development Rights (TDR) program in the area.

## Subdivision Regulations

Subdivision regulations could be updated to include the same language for both of the Installations. Currently, there are no specific requirements noted for Poinsett ECR in some sections. The JLUS Policy Committee also recommends expanding requirements for subdivision signage to include minor, as well as major, subdivisions throughout both the recommended MPA-1 and MPA-2 areas.

## Notice to Property Owners and Occupants

In order to facilitate public awareness and reduce land use conflicts, the JLUS Policy Committee recommends expanding notification areas. This includes engaging the real estate and development community in establishing a requirement for real estate disclosures. The committee also recommends expanding road signage for operational awareness in MPAs.

## Interagency Cooperation

Collaboration among local government and military agencies was a vital component of the JLUS process and will be vital to ongoing land planning efforts in the community related to its military land uses. The Policy Committee suggested several measures be taken in this regard, including to appoint a JLUS Implementation Committee to follow through with the recommendations of the Committee presented in this report. The Policy Committee also recommends creating a review and impact study method for any renewable energy projects proposed in the region, as well as establishing a platform for discussion between the Sumter School District and Shaw AFB officials in order to address coordination at Shaw Heights and High Hills elementary schools.

It is also necessary to promote increased coordination between local, regional, and state agencies and Shaw AFB and Poinsett ECR officials regarding planned infrastructure extensions and potential encroachment impacts. Engagement between local stakeholders and the South Carolina Military Base Task Force should also be sustained. Overall, efforts may be made to continue to integrate and formalize base and community planning efforts among stakeholders and to pursue continued participation in land conservation efforts.

## Public Outreach and Communication

Public outreach and communication is a crucial part of maintaining transparency and fostering trust between the Air Force bases and the surrounding community. Suggestions for improved public outreach include ensuring that the public is aware of restrictions related to civilian Unmanned Aircraft Systems (UAS), construction standards for noise level reduction, and sources of frequency interference. It is also important to increase community awareness of the Air Force mission – particularly as the mission evolves – and to facilitate this through informal documentation or a Military Planning and Coordination Agreement (MPCA). The creation of a dedicated webpage for public awareness efforts would allow for dissemination of information to the public and could create an expanded forum to address issues such as the logistical challenges with on-base schools and noise complaint protocols. Local businesses are also encouraged to coordinate with Shaw AFB and Poinsett ECR.

## Ongoing Planning and Coordination

The final set of recommendations represents a framework that would guide community operations after the JLUS Implementation phase is complete. This phase would be guided by a committee and governed by committee bylaws and a non-binding agreement much like a Memorandum of Understanding (MOU). It is expected that the JLUS Implementation Committee will develop these components during the JLUS Implementation phase following the completion of the JLUS.

The ongoing planning and coordination efforts include establishing a Military Planning and Coordination Committee (MPCC) that will facilitate ongoing communication between the Installations and the community, preparing a Military Planning and Coordination Agreement (MPCA) and the MPCC bylaws, and monitoring the status of the F-35A squadron, as this will determine the final implementation approaches. The installations should also maintain coordination with the Santee-Lynches Regional COG in order to stay abreast of regional issues and potential impacts. In addition, the committee suggests that noise contours and encroachment issues related to the installations and the surrounding communities (particularly related to Poinsett ECR) continue to be monitored and updated.



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