9

SCHRIEVER AIR FORCE BASE

9.01 OVERVIEW

Approximately 7,000 personnel are employed at Schriever Air Force Base (AFB), which is located 3.5 miles east of the Colorado Springs city limits and 5.5 miles west of the Town of Ellicott. The installation is unique in that no airfield or aircraft assets exist on Schriever AFB.

Mission growth and base operating support requirements are expected to increase in the future. Promoting compatible off-base development and improving the area transportation network will help sustain current and future missions at Schriever AFB.

Colorado Springs Joint Land Use Study (JLUS) objectives related to Schriever AFB:

1. To protect airspace above and protect satellite antenna look angles adjacent to the installation.
2. To improve safety and capacity for key transportation corridors that connect Schriever AFB to surrounding communities.

Figure 9.1

SCHRIEVER AFB QUICK FACTS

<table>
<thead>
<tr>
<th>DATE FOUNDED</th>
<th>1985</th>
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<tbody>
<tr>
<td>DIVISION</td>
<td>AIR FORCE SPACE COMMAND</td>
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<tr>
<td>LAND AREA</td>
<td>3,840 ACRES</td>
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<td>MILITARY PERSONNEL</td>
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<tr>
<td>CIVILIAN EMPLOYEES</td>
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<tr>
<td>DEPENDENTS</td>
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<tr>
<td>ECONOMIC IMPACT (2015)</td>
<td>$1.3 BILLION</td>
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Community partners can play a role in protecting communications spectrum capacity and look angles to sustain the mission at Schriever AFB (photo by U.S. Air Force).
Table 9.1
SCHRIEVER AFB COMPATIBILITY ISSUES

**KEY ISSUES:**

1. **Land Use Regulations** – No incompatible development exists in areas surrounding Schriever AFB. However, creating a compatible use buffer around the installation could protect frequency spectrum and enhance perimeter security to sustain existing and future Schriever AFB missions.

2. **Safety Zones** – Electromagnetic frequency radiation hazard zones are an existing compatibility issue.

3. **Transportation** – State Highway 94 safety and capacity considerations are of significant interest for Schriever AFB personnel and residents.

4. **Utility Infrastructure** – Schriever AFB is interested in partnering with utility providers to improve resiliency through natural gas and electric infrastructure enhancements.

5. **Airspace** – Maintaining special-use airspace is necessary to provide a safety buffer between Schriever AFB's communications systems on the surface and air traffic.

6. **Frequency Spectrum** – Communications spectrum considerations at Schriever AFB include line of sight, radio frequency (RF) interference, and radiation hazard zones.

7. **Noxious Weeds** – State and federally listed noxious plant species exist at Schriever AFB.

<table>
<thead>
<tr>
<th></th>
<th>AIR FORCE ACADEMY</th>
<th>FORT CARSON</th>
<th>PETERSON AFB</th>
<th>CHEYENNE MOUNTAIN AFS</th>
<th>SCHRIEVER AFB</th>
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</tbody>
</table>

*Note: x indicates issue studied related to this installation.*
Figure 9.2
SCHRIEVER AFB MAP

Legend
- Schriever AFB Gates
- Schriever AFB
- 2 Mile Plan Notification Area

Data Source: PPACG
9.02 SCHRIEVER AFB MISSION AND OPERATIONAL FOOTPRINT

The host unit at Schriever AFB, the 50th Space Wing (SW), is proudly called the “Master of Space.” The 50 SW is a component of Air Force Space Command (AFSPC). The 50 SW’s mission is to “Evolve space and cyberspace warfighting superiority through integrated and innovative operations.” The 50 SW hosts several key mission partners, including the United States Air Force Warfare Center, elements of the Missile Defense Agency, 310th Space Wing, National Reconnaissance Office Operations Squadron, National Space Defense Center, Joint Force Space Component staff, and elements of the Naval Space Operations Command, among others.

For more information about Schriever AFB, visit www.schriever.af.mil.
Figure 9.3
TRANSPORTATION NETWORK IN THE VICINITY OF SCHRIEVER AFB

Legend
- Installation Gates
- Schriever AFB
- 2 Mile Plan Notification Area
- Highways
- Local Roads
- Critical Military Routes

Data Source: PPACG
9.03 COMPATIBILITY ISSUES

This chapter discusses the relationships among compatibility issues, mission operations, community stakeholders, and current actions to provide background for the strategies within Chapter 10, Implementation Strategies.

REGIONAL COORDINATION

Please see Chapter 4, Regional Compatibility, for a complete discussion.

BUILT ENVIRONMENT AND MILITARY READINESS

Land Use Regulations

Unlike the other four installations in this study, Schriever AFB is not immediately adjacent to an urbanized area. Land adjacent to Schriever AFB is used almost exclusively for agricultural activities, with cattle grazing occurring on many of the larger parcels. Some residential development is also scattered throughout the area on 2.5-acre, 5-acre, and 35-acre lots. Colorado’s State Land Board owns and manages a significant portion of the agricultural land area around Schriever AFB. Existing agricultural uses around the installation are compatible with mission requirements. No incompatible development currently exists in areas surrounding the installation. As shown in Figure 9.4, Schriever AFB Growth Map, nearly all growth around the installation has occurred since 1940.

From 1987 to 1991, eight easements were obtained for parcels surrounding Schriever AFB to the north and west (Figure 9.2). No buildings, structures, overhead power lines, vegetation, or other obstructions over 45 feet above ground level (AGL) shall be allowed in perpetuity for these parcels.

Colorado House Bill 10-1205 created requirements (C.R.S. 29-20-105.6) for local governments to “provide to the installation commanding officer and the flying mission commanding officer, or their designees, information relating to proposed zoning changes, and amendments to the local government’s comprehensive plan, or land development regulations that, if approved, would affect the use of any area within two miles of the military installation.” Planning efforts for Schriever AFB should be focused within the established 2-mile notification area due to distances from developing areas that could impact transportation networks, frequency spectrum, and installation security.

Creating a compatible use buffer around the installation to limit traffic congestion, protect communications spectrum, and enhance installation security would support existing and future Schriever AFB missions.

Schriever AFB is within the boundaries of the State Highway 94 Comprehensive Plan (2003), which is an element of the El Paso County Master Plan that covers 120 square miles. El Paso County’s Planning and Community Development Department administers surrounding land uses and zoning regulations. Schriever AFB personnel participate in the El Paso County development review process as a referral agency. For those areas outside El Paso County’s jurisdiction within either Colorado Springs or Schriever AFB, the expectation is that those entities will recognize the State Highway 94 Comprehensive Plan in a spirit of cooperation and coordination until it is replaced by a new El Paso County Master Plan. This process is anticipated to begin in 2019 and is intended to replace the existing subarea plan. To inform that plan, several strategies have been identified to support the development review process (see Chapter 10).

Even though the eastern edge of Colorado Springs is 3.5 miles west of Schriever AFB, development within the city can indirectly affect installation commuters and residents. PPACG’s small area forecast data was used to show where future growth may occur to inform transportation planning processes, as shown in Figure 9.5, Schriever AFB Small Area Jobs Forecast, and Figure 9.6, Schriever AFB Small Area Residential Unit
Forecast. These maps reflect the forecasted changes in jobs and residential units, respectively, based on state forecasted population growth. Both maps indicate that growth is likely to continue in this area. The development of BLR over the next few decades will create additional growth pressures that may affect the transportation networks that Schriever AFB relies upon.

Effective coordination and planning among military officials, local jurisdictions, utility service providers, and transportation officials will be essential to sustaining current and future missions at Schriever AFB.

*Cattle graze on currently undeveloped BLR property near Schriever AFB (photo by PPACG).*
Figure 9.4

SCHRIEVER AFB GROWTH MAP

Legend

- Schriever AFB Gates
- Schriever AFB
- 2 Mile Plan Notification Area

Key To Structures:
- Pre-1940s Existing Structures
- Structures Built Since 1940s

Data Source: Pikes Peak Regional Building Department, PPACG
Figure 9.5
SCHRIEVER AFB SMALL-AREA JOBS FORECAST

Legend

- ♦ Schriever AFB Gates
- ◯ Schriever AFB
- □ 2 Mile Plan Notification Area
- ~ Highways
- ~ Local Roads

Small Area Forecast Jobs:
- Job Loss - 2015-2045
- Job Gain - 2015-2045
- Job No Change - 2015-2045

Data Source: PPACG
Figure 9.6
SCHRIEVER AFB SMALL-AREA RESIDENTIAL UNIT FORECAST

Legend
- Schriever AFB Gates
- Highways
- Local Roads
- Schriever AFB
- 2 Mile Plan Notification Area
- Small Area Forecast Residential Units:
  - RU Loss - 2015-2045
  - RU Gain - 2015-2045
  - RU No Change - 2015-2045

Data Source: PPACG
Safety Zones

Electromagnetic frequency safety zones are present at Schriever AFB. These zones are related to the frequency spectrum and radiation hazard.

Transportation

State Highway 94 is the primary access route that connects Schriever AFB with Colorado Springs and other El Paso County communities where installation personnel reside. The installation relies on State Highway 94, along with Curtis Road, Bradley Road, Enoch Road, and Irwin Road, for safe and efficient access. State Highway 94 safety and capacity considerations are of significant interest for Schriever AFB personnel and residents. The base partners with local, state, and federal transportation representatives to emphasize the importance of these considerations for State Highway 94 and other area roadways.

The Southern Delivery System (SDS) Components Plan includes potential construction of the Upper Williams Creek Reservoir. The proposed reservoir would be located in the vicinity of Bradley Road, a designated Defense Access Road. Planning for all SDS reservoirs needs to consider the military’s transportation needs in order to maintain the current level of service for Bradley Road.

Waste Management operates a Colorado Springs landfill north of State Highway 94 and west of Curtis Road. All parties who use State Highway 94 should be consulted in the future to identify future safety concerns associated with trash hauling and potential remedies.

Multiple studies by El Paso County and the Colorado Department of Transportation (CDOT) have analyzed accident data and vehicle trips over the previous decade and found that roadway improvements are needed. However, these timing and type of improvements will be impacted by transportation funding constraints at the state and federal levels and competing priorities. In spring 2018, CDOT initiated a study to identify the specific State Highway 94 improvements.

Utility Infrastructure

To improve resiliency at the installation, Schriever AFB is interested in natural gas and other utility infrastructure extensions from its utility providers. The base will continue to evaluate needs for additional electrical capacity and distribution to serve expansion of current missions and new missions. Renewable energy opportunities may be identified through collaboration with utility service providers in the future.

Schriever AFB receives water and sanitary sewer services from the Cherokee Metropolitan District (CMD), a not-for-profit, quasi-municipal governmental entity originally established in 1957. They primarily provide water and sanitary sewer operations for Cimarron Hills customers as well as maintenance of street lighting. CMD lies just east of the city limits of Colorado Springs in El Paso County. CMD’s service area includes Peterson AFB (not served by CMD) on the south, Powers Boulevard on the west, a northern boundary approximately two miles north of Constitution Avenue to Barnes Road, and the eastern boundary follows U.S. Highway 24 approximately one mile east of Marksheffel Road to Constitution Avenue. This district is roughly 6,300 acres and serves some 17,945 customers including Schriever AFB, which is technically outside of the CMD boundary. As the installation grows, it will be important for CMD to understand the anticipated infrastructure and usage needs to accommodate future mission growth to avoid water and sewer capacity issues.

Electrical service is provided by Mountain View Electric Association, Inc., (MVEA), which serves portions of eastern El Paso County and territory outside of the study area in Lincoln and Elbert counties farther east. Much like CMD, effective communication and planning efforts between MVEA and Schriever AFB should support future electrical needs associated with anticipated mission growth.

Airspace

A special-use airspace covers a portion of Schriever AFB. This airspace, designated as R-2602, provides a safety buffer between Schriever AFB’s
communications systems on the surface and air traffic. This airspace also protects aircraft from electromagnetic frequency (EMF) radiation hazards. 50 SW has authority to schedule access to R-2602, and the Federal Aviation Administration’s Denver Center provides air traffic control services for aircraft requiring access. R-2602 vertical dimensions are from ground level to 1,000 feet AGL. A key objective is to protect airspace above Schriever AFB to enable continued communications, cybersecurity, and space operations enabling mission sustainment and community development.

Frequency Spectrum
The Air Force and other federal agencies share the electromagnetic (EM) spectrum and use the RF spectrum for communications, navigation, and other critical purposes. The following may constrain Air Force missions:

- Spectrum regulations, reallocation, or commercialization
- Increased EM interference
- Military-civilian competition for limited bandwidth

Installation personnel document communications antenna locations and any associated electromagnetic frequency radiation zones. Communications spectrum considerations at Schriever AFB include line of sight, RF interference, and radiation hazard zones.

NATURAL RESOURCE FACTORS

Noxious Weeds
Noxious weeds are a compatibility issue at Schriever AFB. Seven state and federally listed noxious plant species (and six other noxious weeds) were identified at Schriever AFB during a survey conducted in 2016 and measures have been taken to address the issue. It is likely that noxious weeds exist near Schriever AFB so adjacent property owners around the installation may face the same noxious weeds issue.