

3.2 AIRSPACE

Airspace, when describing its use for aviation purposes, is defined, managed, and utilized in a manner that best serves the competing needs of commercial aviation, general aviation, and the requirements associated with defense-related activities. The Federal Aviation Administration (FAA), which is responsible for the overall management of airspace, has established four airspace designations that are designed to protect aircraft while operating to or from an airport, transiting enroute between airports, or operating within “special use” areas identified for military purposes. These airspace designations are controlled airspace, uncontrolled airspace, special use airspace, and other airspace. Rules of flight and air traffic control (ATC) procedures have been established to govern how aircraft must operate within each type of designated airspace.

All aircraft operate under either instrument flight rules (IFR) or visual flight rules (VFR). Instrument weather conditions require the use of IFR that entail specific aircraft operating requirements and adherence to ATC-assigned routes and altitudes. In visual weather conditions, aircraft operate under VFR in which pilots must observe and maneuver to avoid other aircraft. Pilots may fly along any desired route of flight without any ATC clearance when operating under VFR.

The type and dimension of individual airspace areas within a given region, and their spatial and procedural relationships to one another, are contingent upon the different aviation activities conducted in that region. When any significant change is planned, such as new or revised defense-related activities within an airspace area or a change in the complexity or density of aircraft movements, the FAA reassesses the airspace configuration to determine if such changes could adversely affect: (1) ATC systems and/or facilities; (2) movement of other air traffic in the area; or (3) airspace already designated and used for other purposes such as Restricted Areas or Military Training Routes (MTRs).

The ROI (Figure 3.2-1) considered for the McGregor Range LEIS is the airspace that is affected by training activities on McGregor Range and Doña Ana Range–North Training Areas and aviation activities at the Biggs Army Air Field (AAF). The McGregor Range and Doña Ana Range–North Training Areas are contained within Restricted Area airspace located north of El Paso in New Mexico. Restricted Areas are established around locations where hazardous activities such as artillery and missile firings, bombing, and gunnery are conducted. Access to this airspace is limited to only those aircraft participating in these activities when the airspace is active. When the FAA designates the area for joint use, these may be used by nonparticipating aircraft with permission of the controlling agency, or using agency as appropriate.

Biggs AAF mission activities occur within the airspace terminal area under the control of the FAA-operated El Paso Approach Control facility at the El Paso International Airport (EPIA). The lateral boundaries of the El Paso Approach Control terminal area, which excludes any airspace beyond the United States-Mexico border, are approximately 25 nautical miles (nm) to the west of EPIA, 35 nm to the east and southeast of the EPIA, and 17 nm to the north of the EPIA. The Approach Control Area encompasses altitudes from the surface to 17,000 feet above MSL. The Approach Control Area contains elements of special use Restricted Area airspace and MTRs.

3.2.1 Restricted Airspace

McGregor Range is located under Restricted Areas R-5103A, R-5103B, R-5103C, and R-5103D. The lateral boundaries of these restricted areas extend northward approximately 45 nm from the New Mexico-Texas border to approximately 8 nm south of Alamogordo, New Mexico, and eastward within a radius of 25 nm of U. S. Highway 54. The altitudes for R-5103A extend from the surface to, but not including 18,000 feet MSL and R-5103D from 18,000 feet MSL to unlimited; for R-5103B from the surface to 12,500 feet MSL; and for R-5103C from 12,500 feet MSL to unlimited. The published hours of operation for R-5103A/B/C/D are from 7:00 a.m. to 8:00 p.m., Monday through Friday (NOAA, 1996).

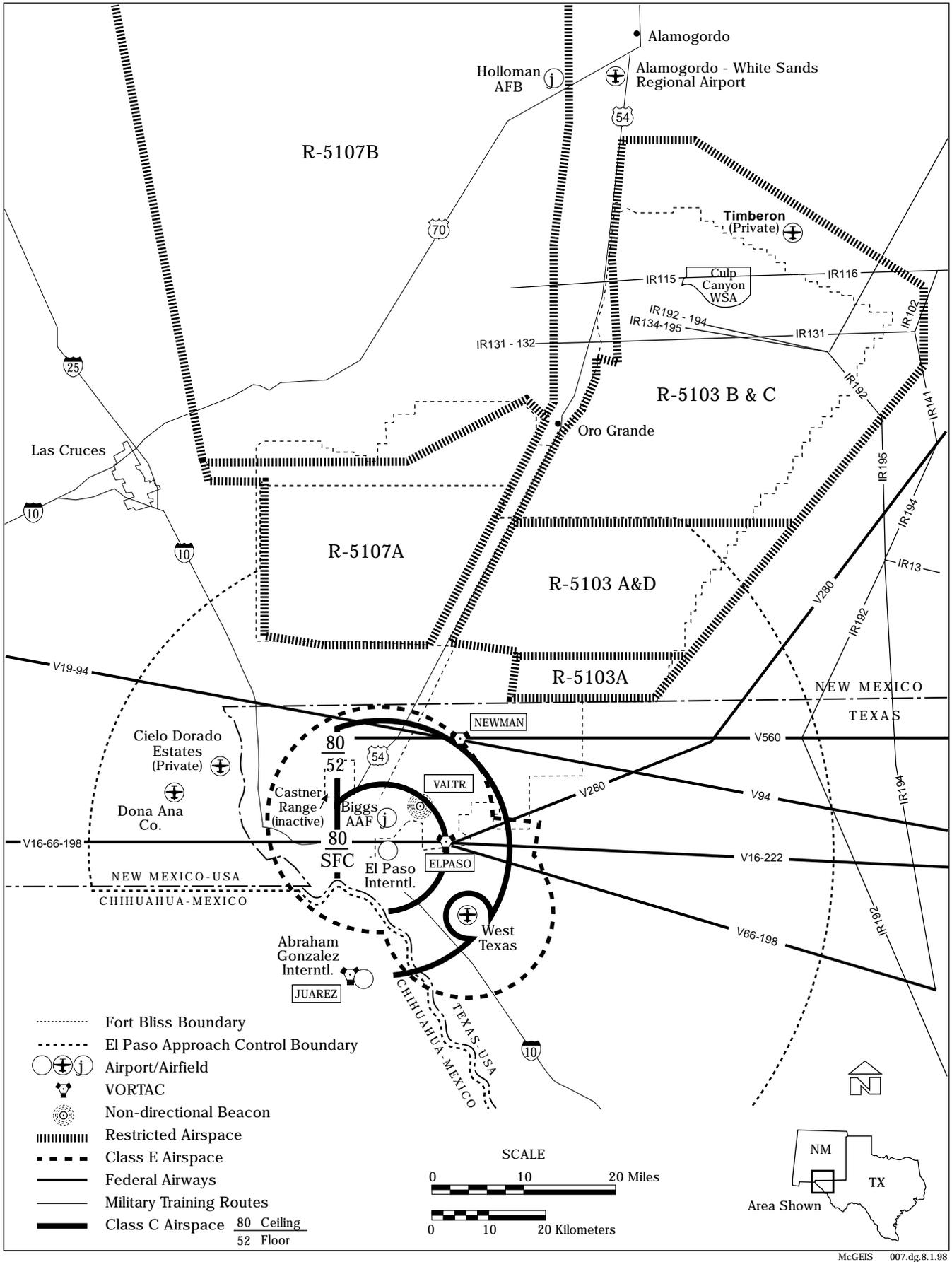


Figure 3.2-1. Airspace Region of Influence.

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Changes to these restricted area hours of operation can occur and such changes are disseminated through the nationwide Notice to Airmen (NOTAM) system that pilots are expected to review prior to flight in the vicinity of restricted or other defense-related airspace. The number of air operations conducted at the McGregor Range in calendar year (CY) 96 is delineated in Table 3.2-1.

Table 3.2-1. McGregor Range Air Operations, 1996

<i>Range Area</i>	<i>Sorties</i>
McGregor Helipad	5
North McGregor/R-5103 B & C	321
South McGregor/R-5103 A & D	283
Orogrande	35
SHORAD	6
Ranger Drop Zone	29
IFC-23	53
Wilde Benton Landing Zone	23
McGregor Range Class C Bombing Range (Bombing Circle)	1,151
<i>Total Sorties</i>	<i>1,906</i>

Note: An aircraft sortie is one take-off and landing associated with the flight of an aircraft. This table shows the sorties through Fort Bliss airspace. Includes sorties with >5 scheduled missions. Unscheduled missions such as medical evacuation, VIP transport, or other missions that include <5 aircraft not included.

Source: U.S. Army, 1996b.

The Doña Ana Range–North Training Areas is located in Restricted Area R-5107A, approximately 5 nm north of the New Mexico-Texas border and west of U.S. Highway 54. The lateral boundaries of this restricted area extend approximately 13 nm to the north and south. The east/west boundaries are approximately 13.5 nm wide at the southern boundary and 23 nm wide at the northern boundary. Altitudes in R-5107A extend from the surface to unlimited. This restricted area is published as active 24 hours a day, 7 days per week.

3.2.2 Military Training Routes

Defined as air routes of varying lengths, widths, and altitudes, MTRs are used for low altitude flight tactics and navigation at speeds greater than 250 knots. Segments of nine MTRs originate, terminate, or transit the McGregor Range restricted airspace as shown in Figure 3.2-1. In FY 96 there was an average of 0.5 daily flight operations on MTR IR-134 (King, 1997). Aircraft normally use IR-134 during daylight hours. MTRs IR-102, IR-115, IR-116, IR-131, and IR-132 are limited to use for Air-launched Cruise Missile (ALCM) missions and no ALCM missions were conducted on these routes in 1996. MTRs IR-192, IR-194, and IR-195 are routes on which there was no activity in 1996. The USAF has proposed that the MTRs originally established for ALCM tests be consolidated and converted to low-level training routes. This action includes changes in aircraft operations along IR-102 and indirectly alters operations in IRs 134/195 and 192/194. Table 3.2-2 summarizes the altitude and route widths for those segments of the MTRs located within the McGregor Range area.

3.2.3 Airports

The El Paso Approach Control Area boundaries encompass four public-use civil airports, one military airport (Biggs AAF), and one private-use civil airport (the Cielo Dorado Estates Airport). The four public-use civil airports are the EPIA, the West Texas Airport, the Doña Ana County Airport, and the Fabens Airport. Biggs AAF and EPIA are contiguous with the Biggs Runway 03/21 located

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Table 3.2-2. MTRs Within the ROI

<i>MTR</i>	<i>Altitude Range</i>	<i>Route Width</i>	<i>Operating Hours</i>
IR-102	500' AGL-10,000' MSL	7-10 nm	Daylight hours by NOTAM
IR-115	500' AGL-12,000' MSL	10 nm	Daylight hours by NOTAM
IR-116	500' AGL-12,000' MSL	10 nm	Daylight hours by NOTAM
IR-131	500' AGL-12,000' MSL	10 nm	Daylight hours by NOTAM
IR-132	500' AGL-12,000' MSL	10 nm	Daylight hours by NOTAM
IR-134	100' AGL-12,500' MSL	Varied as defined by geographical coordinates	Sunrise-11:00 pm
IR-192	100' AGL-12,500' MSL	10-20 nm	Sunrise-11:00 pm
IR-194	100' AGL-12,500' MSL	7-24 nm	Sunrise-11:00 pm
IR-195	100' AGL-12,500' MSL	Varied as defined by geographical coordinates	Sunrise-11:00 pm

Notes: AGL = above ground level, MSL = Mean Sea Level, NOTAM = Notice to Airman.
Source: DoD, 1997.

approximately 1.4 nm north of EPIA's Runway 04/22. Both Biggs AAF and EPIA have Air Traffic Control Towers (ATCT) for the control of arriving and departing aircraft at each facility. El Paso Approach Control provides terminal area ATC radar services to Biggs AAF, EPIA, and the West Texas Airport. The West Texas Airport has no ATCT but the airport is served by a published instrument approach procedure. The Doña Ana County and Cielo Dorado Estates airports are VFR-only airports for which there are no ATC services.

The Timberon Airport, a small, private-use VFR-only civil airport lies within the northeastern boundary of R-5103B/C. However, R-5103B excludes the airspace below 1,500 feet AGL in the vicinity of the airport to protect the airport from the restricted area military activities. Two airports close to the R-5103B/C boundary are HAFB located 8 nm northwest of R-5103B, and the Alamogordo-White Sands Regional Airport, a public-use civil airport, located 5 nm north of R-5103B/C.

Although Biggs AAF and the EPIA are contiguous, each have distinct airspace and ATC operating parameters and procedures. Simultaneous operations typically occur at both airports. However, their proximity to one another, and the relationship of their runway configurations, can require air traffic considerations, particularly during peak traffic periods or instrument weather conditions, in which landings and takeoffs at both facilities may be coordinated and controlled as a single airport. Biggs AAF ATCT is open 10 hours on weekdays, and closed on Saturdays and Sundays except when extended hours are requested. When the ATCT is closed, aircraft arriving to or departing from Biggs AAF receive air traffic advisories and departure clearances from El Paso Approach Control.

In CY 96, 44,811 aircraft operations (defined as one takeoff and one landing) were conducted at Biggs AAF as shown in Table 3.2-3. Biggs AAF ATCT staff estimate that 25 percent of these operations (11,200) were touch-and-go practice takeoffs and landings (Sepulveda, 1997). In CY 96, there were 134,601 aircraft operations at the EPIA, including 69,701 commercial air carrier and air cargo operations; 59,650 general aviation operations; and 5,250 military aircraft operations (EPIA, 1996).

Table 3.2-3. Annual Aircraft Operations and Touch-and-Go's at Biggs AAF, CY 96

<i>Aircraft Category</i>	<i>Operations</i>		<i>Touch-and-Go's</i>	
	<i>Day</i>	<i>Night</i>	<i>Day</i>	<i>Night</i>
Military	35,130	1,849	8,783	462
Civil	7,440	392	1,860	98
<i>Total</i>	<i>42,570</i>	<i>2,241</i>	<i>10,643</i>	<i>560</i>

Source: U.S. Army, 1996c.