

APPENDIX C
AIRSPACE DESCRIPTIONS



Airspace Descriptions

Controlled Airspace

Controlled airspace is a generic term that encompasses the different classifications of airspace (Class A, B, C, D, and E) and defines dimensions within which air traffic control (ATC) service is provided for instrument flight rules (IFR) and visual flight rules (VFR) conditions. VFR air traffic flies below 18,000 feet mean sea level (MSL) using visual references such as towns and highways as a means of navigation. VFR aircraft may also follow Federal airways at altitudes not used by aircraft on instrument flight. VFR conditions rely heavily on “see and avoid” procedures that require pilots to be visually alert for and maintain safe distances from other aircraft, populated areas, obstacles, or clouds. Most other air traffic (including air passenger carriers, business aircraft, and military aircraft) operate under IFR conditions that require pilots to be trained and appropriately certified in instrument navigational procedures. The respective procedures established under VFR and IFR for airspace use and flight operations help segregate aircraft operating under each set of rules. Military pilots are trained for and use both VFR and IFR conditions. Refer to Figure 1 for a depiction of the various classes of airspace discussed below.

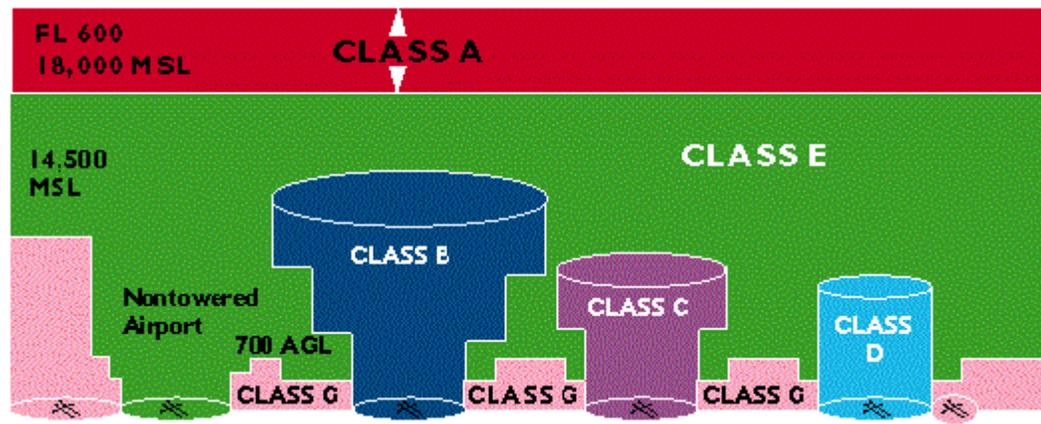


Figure 1. Depiction of Various Classes of Airspace

Class A Airspace. Class A airspace includes all flight levels or operating altitudes from 18,000 to 60,000 feet MSL.

Class B Airspace. Class B airspace typically includes that airspace from the surface to 10,000 feet MSL surrounding the Nation’s busiest airports. Class B airspace is typically associated with major metropolitan airports such as the Phoenix Sky Harbor in Phoenix, Arizona.

Class C Airspace. Class C airspace can generally be described as controlled airspace that extends from the surface up to 4,000 feet above ground level (AGL) to provide additional control into and out of primary airports that occasionally experience a large number of aircraft operations. Class C airspace is associated with city airports such as Tucson International Airport, Arizona.

Class D Airspace. Class D airspace is the area within 5 nautical miles (NM) from an operating ATC-controlled airport, extending from the surface to 2,500 feet AGL or higher. The airspace in the immediate vicinity of Ernest A. Love Airport, Prescott, Arizona, is an example of Class D airspace.

Class E Airspace. Class E airspace is controlled airspace that is not designated as Class A, B, C, or D. It includes designated Federal airways consisting of low-altitude V or “Victor” routes. The majority of Class E airspace is located where more stringent airspace controls have not been established and are associated with smaller airports such as Pinal Airpark and Marana Northwest Regional Airport, Arizona.

Uncontrolled Airspace

Class G Airspace. Uncontrolled airspace, Class G, is not subject to the restrictions that apply to controlled airspace. Limits of uncontrolled airspace typically extend from the ground surface to 700 feet AGL, but can extend above these altitudes to as high as 14,500 feet MSL if the Federal Aviation Administration (FAA) has designated no other types of controlled airspace. Primary users of uncontrolled airspace are general aviation aircraft operating in accordance with VFR.

Special-Use Airspace

Special-use airspace (SUA) consists of airspace within which specific activities must be confined, or where limitations are imposed on aircraft not participating in those activities. With the exception of Controlled Firing Areas, special use airspace is depicted on sectional aeronautical charts. These charts include hours of operation, altitudes, and the agency controlling the airspace.

MOAs. MOAs are non-regulatory special use airspace areas with defined vertical and lateral limits. MOAs are designed to increase safety for IFR and VFR traffic. When an MOA is active (in use), all IFR traffic is re-routed around the area. Non-participating VFR traffic may enter the active MOA, but see and avoid procedures must be used.

Refueling Tracks/Anchors (ARs). AR tracks are published routes where fuel transfer between military aircraft can take place.

Restricted Area. Airspace within which flight of aircraft, while not wholly prohibited, is subject to restriction. This airspace is used to contain hazardous military activity. The term “hazardous” implies, but is not limited to, live firing of weapons, ordnance delivery, and/or aircraft testing.

Range. A range is any land mass or water body, with the associated SUA. A range is a designated area established to conduct military operations, training, research and development, and test or evaluation of military hardware, personnel, tactics, munitions, explosives, and/or EC systems. Range capabilities and services vary, and are dependent upon the test and training requirements delineated by the military. Ranges can accommodate ground activity, ground-to-air activity, and/or air-to-ground activity. Both ground-to-air and air-to ground activity requires SUA above range parameters.

Other

LATN Area. Airspace associated with low-speed and low-altitude training conducted by military aircrews is commonly identified as a LATN area. LATN areas generally have an altitude structure between 100 and 1,500 feet AGL and an airspeed restriction not to exceed 250 knots indicated airspeed (KIAS). A LATN area covers large areas of uncontrolled airspace and facilitates operational flexibility (e.g., flight patterns are not confined to narrow flight corridors and the direction of flight is not restricted). The purpose of LATN areas is to conduct random

VFR low-altitude navigation training in an area that is defined by local military operations. Military aircraft are required to follow all existing FARs while flying within a LATN area. Other nonparticipating civil and military aircraft may fly within a designated LATN area but are required to maintain visual separation from other aircraft in visual meteorological conditions. Military and civilian pilots are responsible to “see and avoid” each other while operating in an LATN area. Since the FAA does not consider a LATN area special use airspace, formal airspace designation is not required. For the same reason, LATN areas are not included on FAA charts or publications.

Landing Zone (LZ). A landing area that has been identified for short field landing, hovering, and takeoff training for aircraft and helicopters. LZs can be established at local public-use airports, military airfields, or other areas that have prior approval for activity.

DAVIS-MONTHAN AFB, RANGES, AND AIRSPACE

Davis-Monthan AFB and Vicinity

DMAFB is located approximately 6 miles southeast of downtown Tucson, Arizona. DMAFB has one northwest and southeast oriented runway (RWY 12/30) that is 13,643 feet long by 200 feet wide. RWY 12 is the primary runway for noise abatement. Tucson Terminal Radar Approach Control (TRACON) controls IFR traffic within approximately 40 NM of DMAFB below 17,000 feet MSL. DMAFB and Tucson International Airport (5 NM to the west) are designated Class C airspace that overlaps and encircles both Tucson International Airport and DMAFB from the surface to 6,600 feet MSL and from 5 NM to 10 NM from 4,200 feet MSL to 6,600 feet MSL. The DMAFB tower is responsible for all air traffic northeast of Interstate 10 within 5 NM of the airport from the surface up to 5,500 feet MSL. DMAFB has three published instrument approaches and three published departures for RWY 12/30. DMAFB supports both VFR and IFR flight operations. There are 33 public use civil airports (including 6 charted private airfields) within 100 NM of DMAFB. The largest of these airports, Phoenix Sky Harbor International Airport, has designated Class B airspace. There are numerous airports within the local flying area that contain Class C and D airspace.

Currently there are approximately 77,000 annual airfield operations conducted at DMAFB. These airfield operations reflect a mixture of aircraft, primarily A/OA-10, EC-130, with F-16, F-15, FA- 18, F-14 AV-8, KC-135, KC-10, B-1, C-17, C-5, C-141 aircraft, and multiple types of helicopter and general aviation aircraft also using the airfield.

Ranges and Airspace

Albuquerque Air Route Traffic Control Center (ARTCC) controls airspace in the ROI. HH-60 and HC-130 aircraft will normally fly below 3,000 feet AGL on training flights. There are low-altitude Victor Routes that serve general and commercial aviation below 18,000 feet MSL. The low-altitude system is defined by the same radio navigation aids that establish the jet route system above 18,000 feet. The individual routes are 8 NM wide. The floors of these routes vary from segment to segment depending on the altitudes necessary to provide clear reception of the navigation signals and safe overflight clearance above the underlying terrain. Low altitude Victor Routes do not penetrate restricted airspace and generally do not penetrate MOAs. Those that do pass through MOAs cannot carry IFR traffic when the MOA is active. There are 15 Victor Routes within 100 NM of DMAFB.

There are 11 low-level military training visual routes (VRs) that transit the DMAFB airspace: VRs 223, 239, 241, 242, 244, 259, 260, 263, 267, 268, and 269. These VRs are primarily used for flight training and entry into the many MOAs in the region, including Ruby 1, Fuzzy, Sells 1,

Sells Low, Jackal 1, Jackal Low, Outlaw, Morenci, Reserve, and Tombstone and Restricted Areas R-2301E/W, R-2305, R-2304, R-2310A/B/C, and R-2312. Figure 1-2 depicts those airspace units proposed for use under the Proposed Action. There are no Instrument Routes (IRs) or Slow Routes (SRs) within 100 NM of DMAFB.

There are 2 LATN areas to the northwest and southwest of the base defined from 100 feet AGL to 3,000 feet AGL (to 1,000 feet AGL in the northwestern part of the LATN that falls under Sells MOA) for A/OA-10 aircraft assigned to DMAFB. The 305 RQS has also established 2 LATN areas designated for HH-60 helicopters to the west (which overlaps the A/OA-10 LATN areas) and east of the base from 100 feet AGL to 1,500 feet AGL.

Currently, the 305 RQS uses the BMGR, primarily R-2304 and R-2305, and Sells MOA for HH-60 training. The BMGR (including the Marine Corps Air Station [MCAS] Yuma portion or R-2301W) contains 56 areas of Special Use Airspace and ATCAAs, where 72,870 aircraft sorties were flown by 44 different aircraft types (Air Force 1999). Within the 305 RQS LATN areas and the BMGR, there are 19 identified LZs for HH-60 helicopters. HH-60 air refueling training is accomplished in the MOAs and the 305 West and East LATN areas. The Tucson Medical Center Heliport is also used by the HH-60's for local support and flight training with flight procedures established in the 305 RQS Inflight Guide.