

# Chapter 13

## Airspace



This chapter introduces the various classifications of airspace and provides information on the requirements to operate in such airspace. For further information, consult the *Aeronautical Information Manual (AIM)* and 14 CFR parts 71, 73, and 91.

The two categories of airspace are: regulatory and non-regulatory. Within these two categories there are four types: controlled, uncontrolled, special use, and other airspace.

Figure 13-1 presents a profile view of the dimensions of various classes of airspace. Figure 13-2 gives the basic weather minimums for operating in the different classes of airspace. Figure 13-3 lists the operational and equipment requirements. It will be helpful to refer to these figures as this chapter is studied. Also there are excerpts from sectional charts in Chapter 14—Navigation, that will show how airspace is depicted.

### CONTROLLED AIRSPACE

Controlled airspace is a generic term that covers the different classifications of airspace and defined dimensions within which air traffic control service is provided in accordance with the airspace classification. Controlled airspace consists of:

- Class A
- Class B
- Class C
- Class D
- Class E

### CLASS A AIRSPACE

Class A airspace is generally the airspace from 18,000 feet mean sea level (MSL) up to and including FL600, including the airspace overlying the waters within 12 nautical miles (NM) of the coast of the 48 contiguous states and Alaska. Unless otherwise authorized, all operation in Class A airspace will be conducted under instrument flight rules (IFR).

### CLASS B AIRSPACE

Class B airspace is generally the airspace from the surface to 10,000 feet MSL surrounding the nation's busiest airports. The configuration of Class B airspace is individually tailored to the needs of a particular area and consists of a surface area and two or more layers. Some Class B airspace resembles an upside-down wedding cake. At least a private pilot certificate is required to operate in Class B airspace; however, there is an exception to this requirement. Student pilots or recreational pilots seeking private pilot certification may operate in the airspace and land at other than specified primary airports within the airspace if they have received training and had their logbook endorsed by a certified flight instructor in accordance with Title 14 of the Code of Federal Regulations (14 CFR) part 61.

### CLASS C AIRSPACE

Class C airspace generally extends from the surface to 4,000 feet above the airport elevation surrounding those airports having an operational control tower, that are serviced by a radar approach control, and with a certain number of IFR operations or passenger enplanements. This airspace is charted in feet

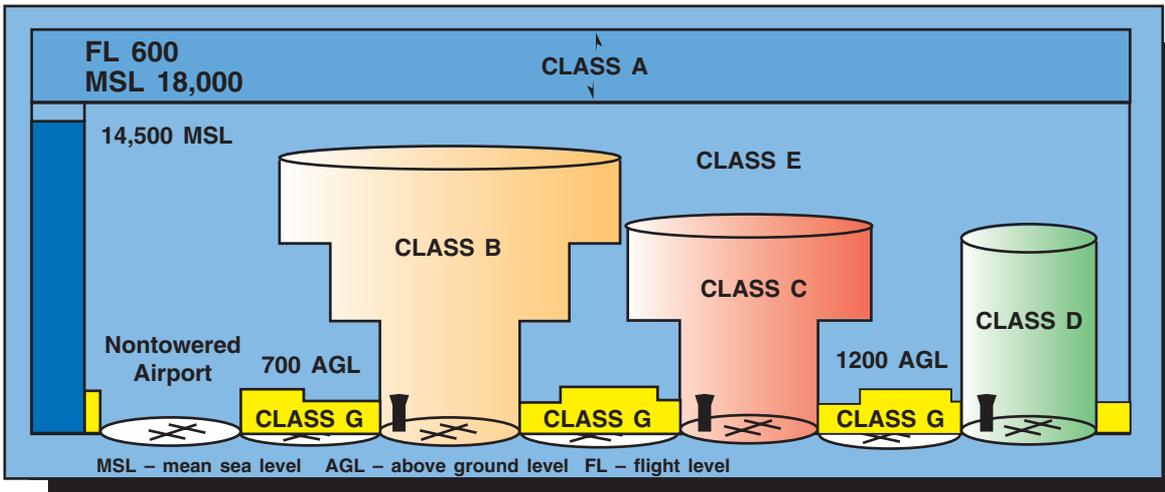
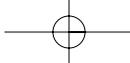
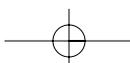


Figure 13-1. Airspace profile.

BASIC VFR WEATHER MINIMUMS		
Airspace	Flight Visibility	Distance from Clouds
Class A .....	Not Applicable	Not Applicable
Class B .....	3 statute miles	Clear of Clouds
Class C .....	3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal
Class D .....	3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal
Class E Less than 10,000 feet MSL .....	3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal
At or above 10,000 feet MSL .....	5 statute miles	1,000 feet below 1,000 feet above 1 statute mile horizontal
Class G 1,200 feet or less above the surface (regardless of MSL altitude). Day, except as provided in section 91.155(b). .....	1 statute mile	Clear of Clouds
Night, except as provided in section 91.155(b). .....	3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal
More than 1,200 feet above the surface but less than 10,000 feet MSL. Day .....	1 statute mile	500 feet below 1,000 feet above 2,000 feet horizontal
Night .....	3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal
More than 1,200 feet above the surface and at or above 10,000 feet MSL. ....	5 statute miles	1,000 feet below 1,000 feet above 1 statute mile horizontal

Figure 13-2. Visual flight rule weather minimums.



Class Airspace	Entry Requirements	Equipment	Minimum Pilot Certificate
A	ATC Clearance	IFR Equipped	Instrument Rating
B	ATC Clearance	Two-Way Radio, Transponder with Altitude Reporting Capability	Private—Except a student or recreational pilot may operate at other than the primary airport if seeking private pilot certification and if regulatory requirements are met.
C	Two-Way Radio Communications Prior to Entry	Two-Way Radio, Transponder with Altitude Reporting Capability	No Specific Requirement
D	Two-Way Radio Communications Prior to Entry	Two-Way Radio	No Specific Requirement
E	None for VFR	No Specific Requirement	No Specific Requirement
G	None	No Specific Requirement	No Specific Requirement

**Figure 13-3. Requirements for airspace operations.**

MSL, and is generally of a 5 NM radius surface area that extends from the surface to 4,000 feet above the airport elevation, and a 10 NM radius area that extends from 1,200 feet to 4,000 feet above the airport elevation. There is also an outer area with a 20 NM radius, which extends from the surface to 4,000 feet above the primary airport, and this area may include one or more satellite airports.

#### **CLASS D AIRSPACE**

Class D airspace generally extends from the surface to 2,500 feet above the airport elevation surrounding those airports that have an operational control tower. The configuration of Class D airspace will be tailored to meet the operational needs of the area.

#### **CLASS E AIRSPACE**

Class E airspace is generally controlled airspace that is not designated A, B, C, or D. Except for 18,000 feet MSL, Class E airspace has no defined vertical limit, but rather it extends upward from either the surface or a designated altitude to the overlying or adjacent controlled airspace.

### **UNCONTROLLED AIRSPACE**

#### **CLASS G AIRSPACE**

Uncontrolled airspace or Class G airspace is the portion of the airspace that has not been designated as Class A, B, C, D, or E. It is therefore designated uncontrolled airspace. Class G airspace extends from the surface to the base of the overlying Class E airspace. Although air traffic control (ATC) has no authority or responsibility to control air traffic,

pilots should remember there are VFR minimums which apply to Class G airspace.

### **SPECIAL USE AIRSPACE**

Special use airspace exists where activities must be confined because of their nature. In special use airspace, limitations may be placed on aircraft that are not a part of the activities. Special use airspace usually consists of:

- Prohibited Areas
- Restricted Areas
- Warning Areas
- Military Operation Areas
- Alert Areas
- Controlled Firing Areas

#### **PROHIBITED AREAS**

Prohibited areas are established for security or other reasons associated with the national welfare. Prohibited areas are published in the Federal Register and are depicted on aeronautical charts.

#### **RESTRICTED AREAS**

Restricted areas denote the existence of unusual, often invisible hazards to aircraft such as artillery firing, aerial gunnery, or guided missiles. An aircraft may not enter a restricted area unless permission has been obtained from the controlling agency. Restricted areas are depicted on aeronautical charts and are published in the Federal Register.