

JEPP'S BRIEFING



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It was about an hour before sunset. Sitting on the ramp at Centennial Airport we could see the sun shining to the west. We wanted to go out and practice some air work before dark. But the ATIS was reporting the ceiling to be 800 feet overcast with a visibility of 10 miles. It sure felt like VFR with all that visibility, but anything below a ceiling of 1,000 feet at Centennial with its control tower makes the airport IFR. Now the question -- can we depart the airport VFR and go out to do some air work?

Time to get out the area chart and look at the controlled airspace boundary lines around Centennial Airport. Is it made up with dashed lines? Or is it made up of those small magenta squares?

Special Privileges



All of the VFR visibilities and cloud clearances are listed in FAR 91.155. At certain airports, when the weather conditions are less than 1,000-3, you can exercise the special VFR privileges listed in FAR 91.157. At any airport within Class C, D, or E airspace, shown on the chart as a series of dashed blue lines, such as Pittsburgh Allegheny County Airport shown in the accompanying illustration, you can request and receive a special VFR clearance if the visibility is at least one mile and you remain clear of

The Chart Clinic – Seventh in a Series

Special Use Airspace (SUA)

Large chunks of airspace are reserved for military operations and other special interest groups. These types of airspace fall into the general category of special use airspace and are commonly referred to as SUAs. SUAs include prohibited areas and restricted areas. Warning areas and military operations areas are technically not special use airspace which are designated in FAR Part 73, but are similar because of the types of restrictions and activities.

No flights are allowed within *prohibited* areas. In the United States, the best known prohibited area is P-56 which encompasses the White House and Capitol Buildings in Washington, D.C. The box adjacent to the special use airspace designation includes the



An area designated as a *restricted* area denotes the existence of unusual and often invisible hazards to aircraft such as artillery firing, aerial gunnery, or guided missiles. Unauthorized penetration of these restricted areas could ruin your whole day. Approval to operate within the restricted areas can be obtained through communications with air traffic control centers, flight service stations, or the controlling agency. Restricted area R-2517 northwest of Los Angeles extends out to sea only three miles, and warning area W-532 extends out beyond the three-mile limit. (The three-mile limit, established in the 1700s, was the range of a cannon.)

To proceed through a restricted area when operating IFR, simply file a flight plan via the airways that proceed through that restricted area. If the clearance is received "cleared as filed," authorization is granted to proceed through the restricted area. It may be a bit chancy to file through the restricted area because two different things could happen. First, your IFR clearance might not come back as "cleared as filed," and then it will take some time to copy a new clearance and figure out a new set of routes and ETAs. Additionally, if the clearance does come "as filed," it is possible that the center will issue an amended clearance once you are enroute if ATC is notified by the military that they are using the restricted airspace.

Warning Areas

A warning area is airspace extending from three nautical miles outward from the coast of the United States and contains activity that may be hazardous to non-participating aircraft. The purpose of warning area is to warn nonparticipating pilots of the potential danger.

Activities conducted within *warning* areas may be as hazardous as those in restricted areas; however, warning areas cannot be designated by the FAA as a restricted area because they are over international waters not subject to FAA restrictions. The FAA claims jurisdiction over the airspace out to 12 nautical miles. Warning areas are regulatory from 3 to 12 n.m. and nonregulatory beyond 12 n.m.

clouds. Special VFR is not authorized, however, at Pittsburgh International Airport. As shown in the illustration, this is made clear by a series of shaded magenta squares outlining the Class D airspace.

Part-Time Controlled Airspace

The blue dashed line around South Lake Tahoe includes the letter "D" which is prefixed by an asterisk. The asterisk indicates the Class D airspace is only in effect on a part time basis. To determine the hours when the Class D airspace is in effect, the back panel of the enroute chart has a complete listing of all the part-time Class C, D, and E airspace on the chart. The listing for South Lake Tahoe shows that the Class D airspace is effective from 0800 to 2000 local time. When the Class D airspace is not in effect, note that the airspace becomes Class G for the other times

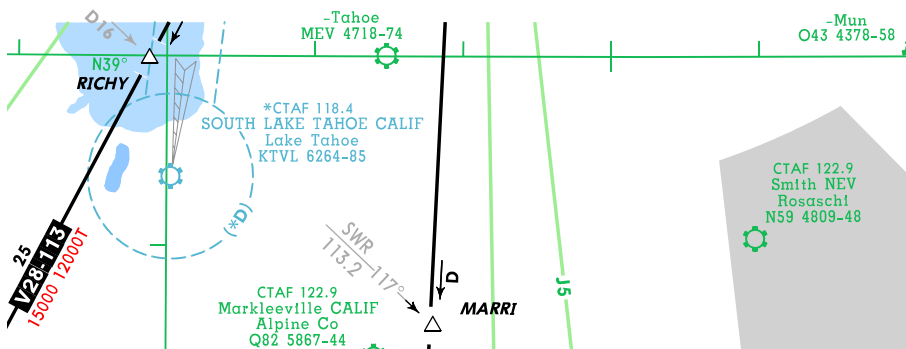
(O/T). Note that the effective hours are shown as *local time* on the Jeppesen charts.

Bases of Controlled Airspace

In the United States, the base of the controlled airspace starts either on the surface, at 700 feet AGL, 1,200 feet AGL, or a designated MSL base altitude. When the base of the controlled airspace is 700 feet AGL, that airspace is designated as a transition area. The base of the controlled airspace on airways is 1,200 feet AGL and extends four nautical miles on both sides of the airway centerline. Some transition areas also have a base of 1,200 feet AGL.

All airspace which is controlled below 14,500 feet is shown on the charts by the white areas. In the illustration, note that the airspace southeast of the Smith, Nevada airport is shaded. This means that the base of the controlled airspace southeast of Smith is at 14,500 feet MSL, which is the base of the Class E airspace. What does this mean? If you depart the Smith Airport as an FAR 91 operator, you can fly southeast bound in IFR weather conditions without an IFR flight plan and without an ATC clearance. This may be legal, but remember that ATC has no jurisdiction over that airspace below 14,500 feet and, therefore, does not provide separation.

For an IFR flight from Smith to South Lake Tahoe, the situation changes. You cannot penetrate the controlled airspace to the west of Smith without an IFR flight plan and an ATC clearance.

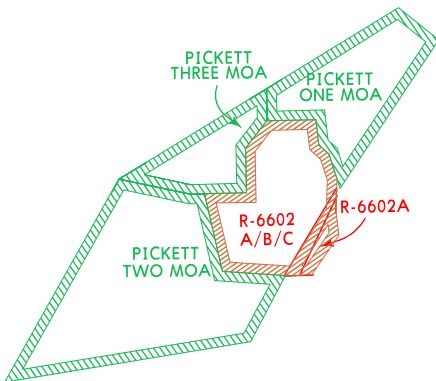


Military Operations Areas

There are a number of locations throughout the United States where military operations are conducted that are unlike those in restricted or warning areas. These areas are called *Military Operations Areas (MOAs)* and are designated on charts only in the low altitude airspace. On the charts, MOAs are depicted with their lateral boundaries, but the vertical limits and hours of operation are included on the panel of the charts with the name of the controlling facility. In the illustration, the Pickett MOA is divided into three different areas with different vertical limits. The details are on the chart panel.

When flying VFR, you can fly through these areas without getting a special clearance; however, it is obviously important to be on alert for military activity. When flying IFR, a flight plan through an MOA will usually be approved. But frequently there are operations in the MOA that require ATC to give an IFR clearance around the MOA. If that happens and the new routing is significantly longer, it is wise to check on the altitudes of the MOA, because frequently a lower or higher altitude may allow you to avoid the MOA by flying below or above it.

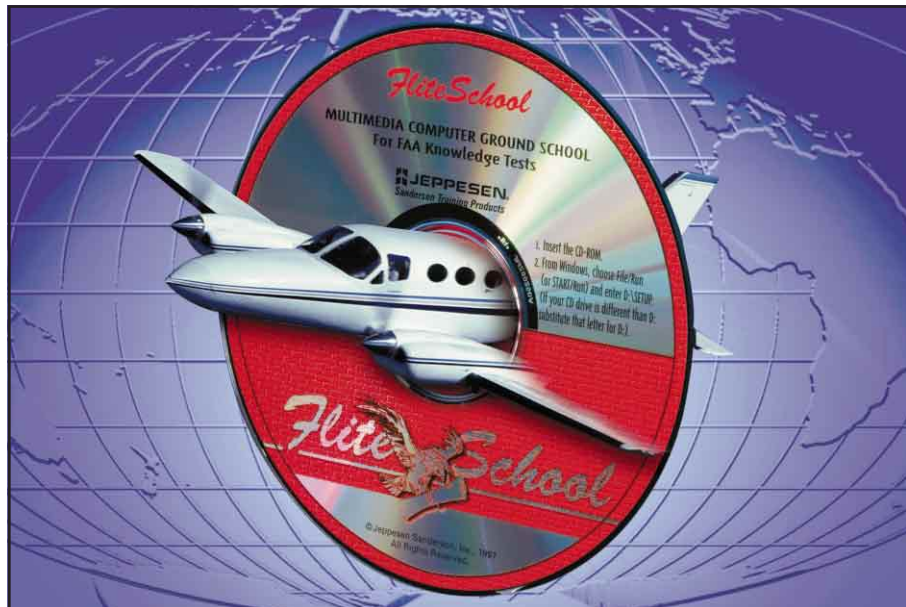
There are a couple of things about MOAs that are not very well known. Most MOAs extend into the high altitude airspace but you as a pilot have no way of knowing where these areas are located. These areas exist by special letters between the military and the FAA and are called ATCAAs. In the areas where the MOAs extend into the high altitude, they usually extend to FL240, but can extend much higher.



Restrictive Airspace Symbolology

The boundaries of restricted areas and military operating areas have a slightly different look. The boundary around R-6602 has more hashes per inch than the boundaries that depict the Pickett military operations area. Prohibited areas use the same boundary as restricted areas whereas warning areas have the same boundary as MOAs.

The difference between the symbols signals that a clearance is required prior to entering the special use airspace. Areas that are depicted with the higher



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intensity symbol require communications prior to entry. Areas depicted with the more widely spaced hash lines symbology do not require communications or a clearance, but show areas where you should exercise extra visual surveillance for unusual flight activity.

In the next article on Jeppesen charts, we will consider the symbols used to make up the airway structure, the symbols and uses of MEAs, MOCAs and MRAs. ☒



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