

# AIRSPACE AND ROCKETS

## Airspace, how is it defined?

Class A, B, C, D, E, and G airspace. We will mainly go over Class B and D airspace.

## What equipment is needed for Class B Airspace?

Unless otherwise authorized by ATC, aircraft must be equipped with an operable two-way radio capable of communicating with ATC on appropriate frequencies for that Class B airspace. Unless otherwise authorized by ATC, an operable radar beacon transponder with automatic altitude reporting capability and operable ADS-B Out equipment. The pilot-in-command holds at least a private pilot certificate, recreational, sport, and student pilots must fall under certain CFR 61. sections, refer to the AIM Airspace section.

## When do you need ADS B out?

ADS B Out is Generally required, from surface to 10,000 feet mean sea level (MSL) including the airspace from portions of Class Bravo that extend beyond the Mode C Veil up to 10,000 feet MSL (e.g. LAX, LAS, PHX) Not required for class D airspace.

## When do you contact ATC?

IFR, When directed by ATC

VFR, Prior to entering, however there are geographical fixes shown on local charts even if operating below the floor of the class B. If departing from an airport in class B that is not the primary airport, contact ATC prior to departure and tell them from which airport you are departing.

Share my experience of Class B airspace when I was learning to fly and I went to VGT and was vectored through LSVs Class B.

The AIM goes more in depth with this airspace.

## [SHOW TOWER PHOTOS, ROTATING BEACON, AND LIGHT GUN](#)

## What equipment is needed for Class D Airspace?

An operable two-way radio is required.

## When do you contact ATC?

Two-way radio communication must be established with the ATC facility providing ATC services prior to entry, and a good rule of thumb is 10 nm out, it is a good idea about 25 – 20 nm out to listen to ATIS or AWOS, and if it is close the 55 minutes past the hour, check again at around 15 nm out for a new ATIS letter or new information. And the way you know you have established two way communication with the tower is when they say YOUR distinct callsign back to you, and thereafter maintain those communications while in the Class D airspace. Pilots of arriving aircraft should contact the control tower on the publicized frequency and give their position, altitude, destination, and any request(s). Radio contact should be initiated far enough from the Class D airspace boundary to preclude entering the Class D airspace before two-way radio communications are established.

A point of interest is, At airports with elevations of 2,000 feet MSL and higher, control towers and FSSs will broadcast the advisory “Check Density Altitude” when the temperature reaches a predetermined level. These advisories will be broadcast on appropriate tower frequencies or, where available, ATIS. FSSs will broadcast these advisories as a part of Local Airport Advisory.

## [Temporary Flight Restrictions \(TFRs\)](#)

## What does TFR stand for?

These airspace restrictions are called Temporary Flight Restrictions (TFRs) and are communicated to pilots through Notices to Airmen (NOTAMs). They restrict aircraft (including drones) from operating without permission in a certain area for a limited time. You must always check NOTAMs prior to your flight.

### When are TFRs issued

TFRs are issued for safety or security purposes. Reasons for issuing a TFR include:

- Natural disasters such as wildfires and hurricanes
- Certain major sporting events and other potential hazards to aircraft
- Emergency or national security situations

### How can I check if there is a TFR in the area where I want to fly?

Active TFRs are published on [FAA's TFR list](#). The TFR list is updated in real-time. The easiest way to see if one exists in your area is to filter by state. You can view details of the TFR in the column titled 'NOTAM'.

TFRs are also displayed in FAA resources for drone pilots:

- Low Altitude Authorization And Notification Capability (LAANC) – applications provided by FAA-approved companies to deliver airspace authorizations on behalf of the FAA
- [B4UFLY App](#) – an app designed for recreational drone flyers

### How can I get permission to fly during a TFR?

At the request of local authorities or law enforcement, the FAA can issue TFRs to ensure safety for aircraft operations. TFRs do not ban aircraft with proper authorization, including drones, from providing disaster relief and recovery assistance.

TFRs include details about who may get approval to fly in them. Typically, only public safety agencies, first responders and other organizations such as media may be eligible for approval.

To fly in a TFR, drone pilots must coordinate with the controlling agency listed in the TFR.

To fly in a TFR, drone pilots can apply through the FAA's expedited approval process known as the [Special Governmental Interest \(SGI\)](#) process.

To apply for an authorization through the SGI process you must:

- Be a Part 107 Remote Pilot with a current certificate or have a Certificate of Waiver or Authorization (COA)
- Fill out the [Emergency Operation Request Form](#) (MS Word) and send it to the [FAA's System Operations Support Center \(SOSC\)](#).

The FAA's goal at all times is to ensure the safety of the skies, and TFRs play a critical role in this mission.

**Ask for any questions from the attendees.**

### TFR Violations

The FAA investigates all reported Temporary Flight Restriction violations. Pilots who violate TFRs can face sanctions ranging from warnings or fines to certificate suspensions or revocations. The sanction depends on the circumstances of the violation.

Some of the TFR violations I have seen were, the TFR for the Alaska 261 flight south of NAS Point Mugu, where a media helicopter flew into the TFR, at KWJF during an airshow there was an aircraft at 7500 feet that flew thru our airspace, the TFR went to 10,000 feet, and while attending a rocket launch at Lucerne Dry Lake in California, we had a Cherokee fly thru, our TFR there was surface to 10,000 feet with real time to 18,000 feet or flight level 180. Now lets talk rockets.

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