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# Class B Airspace

*Ref. FAR 91.131 and AIM 3-2-3*

## Description

- Surrounds certain large airports
- Multiple segments with different ceiling/floor altitudes.
  - Example: 70/30 = ceiling 7,000 msl, floor 3,000 msl

## Requirements/Limitations

- ATC clearance and establish two-way communication prior to entering
- Maintain two-way communication within Class B airspace
- Mode C transponder (inside the Mode C veil)
- Visibility: Three statute miles
- Cloud clearance: Clear of clouds
- Student pilot operations restricted

**Question:** What if the controller puts me on a heading that will take me into the airspace, but doesn't actually tell me that I'm cleared into the airspace?

**Answer:** You need to hear the words "cleared into the Class B airspace," or equivalent. If you don't, be sure to ask the controller before you enter the airspace.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.




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# Mode C Veil

*Ref: AIM 3-2-3*

## Description

- Mode C veils exist within 30 nm of most Class B airports. (A list of these airports is available in FAR 91, Appendix D, Section 1)
- In some cases, Class B airspace extends beyond the Mode C veil

## Requirements/Limitations

- Mode C transponder
- Certain exemptions apply. Refer to FAR 91.215

**Question:** If I'm based within a Mode C veil, and my transponder fails while I'm outside the veil, can I get back in?

**Answer:** Yes, provided you telephone the ATC facility with jurisdiction over the airspace and request permission to make the flight. Upon agreeing to conditions (including direction of flight and altitude), you will be given a code number that you can mention to the controller upon initial radio contact.


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# VFR Transition Routes

*Ref. AIM 3-5-5*

## Description

- Used by ATC to route VFR traffic through Class B airspace
- Depicted on terminal area charts

## Requirements/Limitations

- ATC clearance
- Mode C transponder
- Adherence to published route and ATC instructions

**Question:** How do I ask ATC permission to use a VFR transition route?

**Answer:** On initial contact, notify ATC of your position, altitude, desired route name, and direction of flight.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.



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# VFR Flyways

*Ref. AIM 3-5-5*

## Description

- A general flight path that helps pilots plan flights into, out of, through, or near complex terminal airspace to avoid Class B airspace
- ATC clearance not required

## Requirements/Limitations

- Mode C transponder
- Pilot must still comply with requirements for other airspace entered
- Depicted on the back of terminal area charts

**Question:** Will a VFR flyway take you into Class B airspace?

**Answer:** No. VFR flyways route you around Class B airspace. Remember, though, that they may take you through other areas with their own requirements (Class D airspace, for example).

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.



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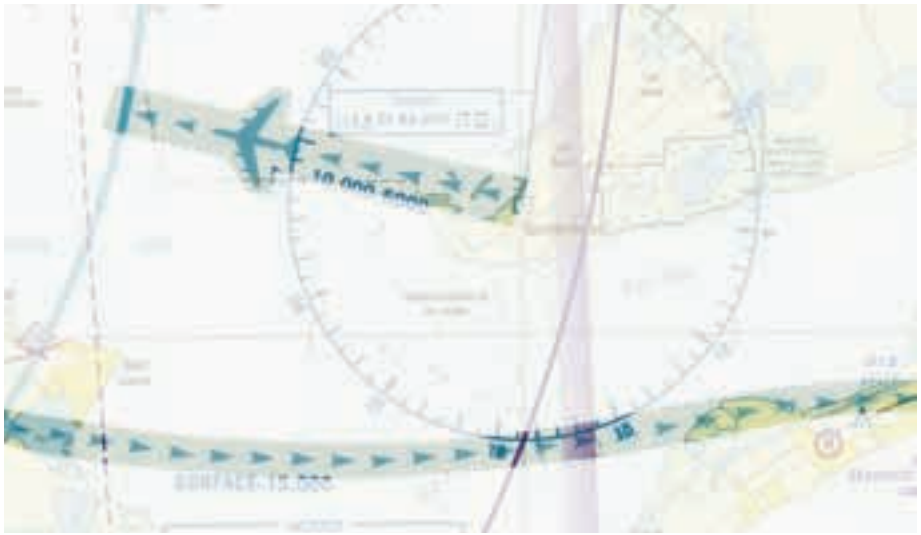

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# IFR Routes

*Ref: NACO Aeronautical Chart User's Guide*

## Description

- Only depicted on VFR terminal area charts
- Shows arrival and departure routes and altitudes of IFR traffic into and out of the terminal area of Class B airspace

## Requirements/Limitations

- Not applicable

**Question:** If I'm a VFR-only pilot, why do I need to know about IFR routes?

**Answer:** The IFR routes depicted on the VFR terminal area charts should alert VFR pilots operating in terminal areas of arriving or departing IFR traffic. Maintain extra vigilance when flying through or near these routes.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.




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# Class C Airspace

*Ref. FAR 91.130 and AIM 3-2-4*

## Description

- Surrounds certain medium-sized airports
- Typically 10 nm radius
- Generally includes two segments:
  - 5 nm radius core from surface to 4,000 agl
  - 10 nm radius shelf from 1,200 to 4,000 agl

## Requirements/Limitations

- Establish and maintain two-way communication prior to entering
- Mode C transponder
- Visibility: Three statute miles
- Cloud clearance:
  - 500 feet below
  - 1,000 feet above
  - 2,000 feet horizontal

**Question:** I'm departing from a small nontowered field three miles from the primary airport in Class C airspace. Am I required to contact ATC prior to takeoff?

**Answer:** Generally, you are only required to contact ATC as soon as practical after departure. However, you should follow any procedures specified in the Airport/Facility Directory: In many cases, you may be able to contact ATC from the ground.


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# Class D Airspace

*Ref. FAR 91.129 and AIM 3-2-5*

### Description

- Surrounds smaller towered airports
- Typically 4 nm radius
- Ceiling generally 2,500 agl
- Usually reverts to a Class E surface area when the tower is closed
- May include Class E surface area extensions

### Requirements/Limitations

- Establish and maintain two-way communication
- Visibility: Three statute miles
- Cloud clearance:
  - 500 feet below
  - 1,000 feet above
  - 2,000 feet horizontal

**Question:** Is there a speed limit within Class D airspace?

**Answer:** Yes. Below 2,500 agl and within four nautical miles of the primary airport, aircraft are limited to 200 knots indicated airspeed.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.




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# Terminal Radar Service Area (TRSA)

*Ref. AIM 3-5-6*

### Description

- Surrounds Class D airports with expanded ATC radar services

### Requirements/Limitations

- Pilots are not required to participate
- Transponder and two-way communication for participating aircraft
- Rules for Class D airspace within apply regardless of pilot participation with TRSA radar services

**Question:** Where do TRSAs fit in the national airspace classification system?

**Answer:** TRSAs are "leftovers" from the previous (pre-1993) airspace classification system. As a general rule, they exist at airports where traffic load requires enhanced radar service, but that aren't busy enough to justify Class C airspace.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.


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# Class E Airspace, Surface Area

*Ref. FAR 91.127 and AIM 3-2-6(e)(1)*

## Description

- Around some airports, Class E airspace begins at the surface, rather than the normal 700 or 1,200 agl
- Class D airports with part-time towers usually become Class E surface areas when the tower is not in operation

## Requirements/Limitations

**Below 10,000 msl:**

- Visibility: Three statute miles
- Cloud clearance:
  - 500 feet below
  - 1,000 feet above
  - 2,000 feet horizontal

**Question:** Are Class E surface areas always depicted with a dashed magenta line?

**Answer:** No. When the tower ar a Class D airport is closed, the airspace—which is depicted with a dashed **blue** line—may revert to a Class E surface area.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.




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# Class E Airspace, Transition Area (700 agl)

*Ref. FAR 91.127 and AIM 3-2-6(e)(3)*

## Description

- Surrounds many nontowered airports
- Extends Class E airspace downward to accommodate IFR procedures

## Requirements/Limitations

**Below 10,000 msl:**

- Visibility: Three statute miles
- Cloud clearance:
  - 500 feet below
  - 1,000 feet above
  - 2,000 feet horizontal

**Question:** What purpose do Class E transition areas serve?

**Answer:** Class E transition areas exist to help IFR traffic transition to or from the terminal or en route environment.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.

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# Different Floors of Class E Airspace

*Ref: NACO Aeronautical Chart User's Guide*

### Description

- Identifies different floor levels of airspace greater than 700 feet agl
- When the ceiling is less than 18,000 msl, the value, prefixed by the word "ceiling," will be shown along the limits of the airspace boundaries

### Requirements/Limitations

- Not Applicable

**Question:** Where am I likely to encounter differences in Class E airspace depicted by this symbol?

**Answer:** Typically in areas of high terrain (the Grand Canyon, for example), and off the east and west coasts of the United States.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.



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# Special Conservation Area

*Ref. AIM 7-4-6*

### Description

- Surrounds many national parks, wildlife refuges, etc.

### Requirements/Limitations

- Pilots are requested to avoid flight below 2,000 agl in these areas

**Question:** Can I legally operate below 2,000 agl within a special conservation area?

**Answer:** Yes, but you are requested to maintain a minimum altitude of 2,000 agl whenever possible. This can also help you avoid bird strikes at low altitudes.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.

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# Prohibited Area

*Ref. AIM 3-4-2*

### Description

- Established for security reasons
  - Example: Camp David (P-40) in Maryland

### Requirements/Limitations

- Flight within a prohibited area is not permitted

**Question:** How much distance should I maintain from prohibited areas?

**Answer:** You should steer well clear of prohibited areas. Allow at least a few miles to account for navigation error and variances between GPS and ATC radar positions.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.




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# Restricted Area

*Ref. AIM 3-4-3*

### Description

- Separates civilian traffic from potentially hazardous military activities

### Requirements/Limitations

- VFR flight through an active restricted area is not permitted without prior permission
- Check with the controlling ATC facility (noted on sectional charts) for current status prior to entering

**Question:** May I legally fly through an inactive restricted area?

**Answer:** Yes, but you should be certain to contact the controlling ATC facility for current status before entering the airspace.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.


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# Warning Area

*Ref. AIM 3-4-4*

### Description

- Extends outward from 3 nm off the coast
- Warns pilots of potentially hazardous activities

### Requirements/Limitations

- VFR flight through active warning areas is permitted, though not recommended

**Question:** Am I required to contact ATC before entering a warning area?

**Answer:** No, but you should contact the controlling ATC facility for status information prior to entry. Active warning areas can be dangerous to general aviation aircraft.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.




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# Alert Area

*Ref. AIM 3-4-6*

### Description

- Established in areas with a high volume of pilot training or unusual type of aerial activity

### Requirements/Limitations

- Pilots are advised to be particularly vigilant in scanning for traffic

**Question:** Do I need to contact ATC prior to entering an alert area?

**Answer:** No. ATC contact/clearance is not required to enter an alert area.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.


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# Military Operations Area (MOA)

*Ref. AIM 3-4-5*

### Description

- Established to allow military training activities

### Requirements/Limitations

- VFR pilots may fly through active MOAs, but are advised to exercise extreme caution
- Pilots should check with the controlling ATC facility (noted on sectional charts) for MOA status prior to entering an MOA

**Question:** What kinds of military flight operations take place within MOAs?

**Answer:** High-speed flight, aerobatic maneuvers, and low-level flight can all be expected. In certain MOAs, "lights out" night training is also permitted.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg and ASI's *Mission: Possible* course at www.airsafetyinstitute.org/mission_possible. Also, view ASI's *Lights-Out* safety advisor at www.aopa.org/asf/publications/sa21.pdf



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# Military Training Routes (MTRs)

*Ref: AIM 3-5-2*

### Description

- MTRs prefixed with the letters 'IR' are for IFR flights
- MTRs prefixed with the letters 'VR' are for VFR flights
- MTRs with a letter suffix (i.e., A, B, etc.) denote an alternate route
- MTRs with four numbers denote routes flown at 1,500 agl and below
- MTRs with three numbers denote routes with at least one segment above 1,500 agl

### Requirements/Limitations

- Not Applicable, extreme vigilance recommended

**Question:** What is a military training route?

**Answer:** A military training route, or MTR, is used by the military for conducting low-altitude, high-speed flight training. Typically the routes above 1,500 agl are flown under IFR, and the routes below 1,500 are flown under VFR. Contact Flight Service for MTR activity that might affect your route of flight.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.


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# National Security Area (NSA)

*Ref. AIM 3-5-7*

## Description

- Established around areas requiring special security precautions

## Requirements/Limitations

- Pilots are requested to avoid flight below a specified altitude within the NSA
- Flight may be temporarily restricted or prohibited by notam

**Question:** Where might I expect to find an NSA?

**Answer:** NSAs can be established anywhere a need for greater security exists, but are most often seen around government/military installations.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.



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# Special Flight Rules Area

*Ref. Part 91 Special Federal Aviation Regulations (SFARs)*

## Description

- Depicts airspace subject to special regulation
  - Examples: Grand Canyon, Washington, D.C. area

## Requirements/Limitations

- As specified by SFAR
- For operating rules, refer to the chart legend or the SFAR section at the beginning of FAR Part 91

**Question:** What kinds of procedures exist for flying within SFAR areas?

**Answer:** Procedures vary. In the Grand Canyon, for example, special transition routes and altitude rules apply.

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# Washington, D.C. SFRA

***(Special Flight Rules Area)***

*Ref. AIM 5-6-1, FAR Part 93*

## Description

- 30 nm radius of the DCA VOR/DME
- Speed restriction ring 30 to 60 nm radius of the DCA VOR/DME
- Surface up to but not including FL180

## Requirements/Limitations

- Active IFR or D.C. SFRA flight plan
- Two-way radio communication
- Discrete transponder code (Mode C)
- Enter and exit via specific "gates"
- 180 KIAS or less in the D.C. SFRA, if able
- 230 KIAS or less in the 30 to 60 nm speed restriction ring, if able
- Refer to www.aopa.org/security for additional information
- Before operating within 60 nm of the D.C. SFRA, pilots must complete FAA's online training course

**Question:** If I'm given permission to enter the Washington, D.C. SFRA, do I also have permission to enter the Class B airspace within?

**Answer:** No. You need a specific clearance to enter the Class B airspace.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.



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# Flight Restricted Zone (D.C. FRZ)

*Ref. FAR Part 93*

## Description

- 13 -15 nm radius of DCA VOR/DME
- Surface up to 17,999 msl

## Requirements/Limitations

- General aviation flights are prohibited with limited exceptions
- Refer to www.aopa.org/security for additional information

**Question:** Is there any way I can legally fly into the FRZ?

**Answer:** Yes. Before flying into the FRZ, you must undergo a background check and follow special procedures.

For more information, take ASI's *Know Before You Go* online course at www.airsafetyinstitute.org/kbyg.

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# Temporary Flight Restriction (TFR)

*Ref. AIM 3-5-3*

### Description

- Most TFRs are not charted, although some longer-term TFRs are

### Requirements/Limitations

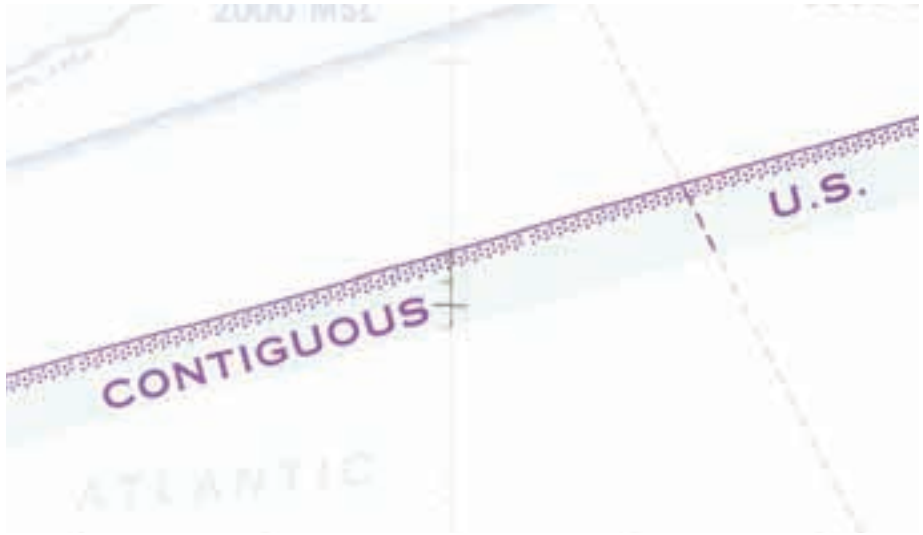
- As specified by notam

**Question:** How much notice is given prior to the establishment of a TFR?

**Answer:** In some cases, TFRs are established with little or no notice. Get a thorough Flight Service or DUATS briefing just prior to flight and call for updates when airborne. AOPA members can use the AOPA Internet Flight Planner (AIFP) to plan routes around current and upcoming TFRs.

Access the AIFP online at www.aopa.org/aifp. Obtain notams online at www.aopa.org/whatsnew/notams



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# Contiguous U.S. ADIZ

***(Air Defense Identification Zone)***

*Ref. AIM 5-6-1*

### Description

- Surrounds the nation's eastern, southern, and western borders

### Requirements/Limitations

- IFR or DVFR (Defense VFR) flight plan
- Discrete transponder code (Mode C)
- DVFR aircraft must make position reports prior to entering
- Two-way radio communication
- 12" N-numbers

**Question:** What is a DVFR flight plan, and why is one required for VFR aircraft that enter the contiguous U.S. ADIZ?

**Answer:** A normal VFR flight plan is not transmitted to ATC: It exists for search-and-rescue purposes only. A DVFR (Defense VFR) flight plan is transmitted to ATC, letting controllers know that the aircraft will be approaching an ADIZ under VFR.