BASICS FOR AIR TRAFFIC CONTROL – AIRSPACE

MODULE OVERVIEW

Purpose: This module explains how Air Traffic Control (ATC) classifies, organizes, and uses classes of airspace and Special Use Airspace (SUA).

MODULE OUTLINE

Lesson: Classes of Airspace

Purpose: This lesson explains how airspace is classified and organized by Air Traffic Control (ATC) and how ATC uses the airspace to safely direct and separate thousands of aircraft flights each day.

Objective:

- Identify classes of airspace and their uses

Topics:

- Classes of Airspace
- Controlled Airspace
  - Class A Airspace
  - Class B Airspace
  - Class C Airspace
  - Class D Airspace
  - Class E Airspace
- Uncontrolled Airspace
  - Class G Airspace
- Airspace Hierarchy
- Knowledge Check
- Temporary Flight Restrictions
- Knowledge Check
- Review/Summary

Study Aid – Airspaces Quick Reference Chart

Lesson: Special Use Airspace

Purpose: This lesson defines Special Use Airspace (SUA), enabling air traffic controllers to enforce regulations concerning the nature of activities held within these reserved areas.

Objective:

- Identify SUA, as designated in the United States

Topics:

- Special Use Airspace
  - Special Use Airspace Programs
  - Controlling Agency
  - Using Agency

- Special Use Airspace Types
  - Restricted Area (R)
  - Prohibited Area (P)
  - Warning Area (W)
  - Alert Area (A)
  - Controlled Firing Area (CFA)
  - Military Operations Area (MOA)
  - National Security Area (NSA)
- Knowledge Check
- Review/Summary

Exercise – Airspaces

Game – *Cleared to Land*

Question and Answer Session – *Parking Lot*

End-of-Module (EOM) Test

INTRODUCTION

LESSONS	■ Classes of Airspace ■ Special Use Airspace
TOTAL ESTIMATED RUN TIME	2 hrs. 27 mins.
MODULE CONTENT	■ Module Overview ■ Lesson: Classes of Airspace ■ Study Aid – Airspaces Quick Reference Chart ■ Lesson: Special Use Airspace ■ Exercise – Airspaces ■ Game – Cleared to Land ■ Q&A Session – Parking Lot ■ End-of-Module Test

FACILITATOR INSTRUCTIONS	DELIVERY METHOD
■ Instruct students to select the ***Airspace*** module link within Blackboard ■ Instruct students to read the module introduction and then wait quietly for additional instructions	Blackboard
	EST. RUN TIME
	2 mins.

When you take a trip in your car, there are many regulations that dictate safe travel. These regulations are posted on the road's pavement or as signs along your route.

However, you cannot post a sign in a cloud or mark the lanes of travel in the air. The National Airspace System (NAS) must be highly organized and regulated to operate safely. Imagine thousands of highways extended in the sky, layered vertically and horizontally, and intersecting in a complicated web. Picture having to avoid traffic on these highways in three-dimensional airspace. Traffic is not only to your right and left, but above and below you, too.

Air Traffic Control (ATC) manages such a complex network by classifying airspace and defining its dimensions.

The purpose of this module is to explain how Air Traffic Control (ATC) classifies, organizes, and uses classes of airspace and Special Use Airspace (SUA).

FACILITATOR INSTRUCTIONS	DELIVERY METHOD
■ **ENABLE *Classes of Airspace*** lesson in Blackboard ■ Instruct students to navigate to the ***Classes of Airspace*** lesson in Blackboard ■ Instruct students to work individually through the lesson content ■ Upon completion of the lesson students should review previously introduced content or wait quietly until other students have completed	Blackboard **EST. RUN TIME** 25 mins.

CLASSES OF AIRSPACE

Purpose: This lesson explains how airspace is classified and organized by Air Traffic Control (ATC) and how ATC uses the airspace to safely direct and separate thousands of aircraft flights each day.

Objective:

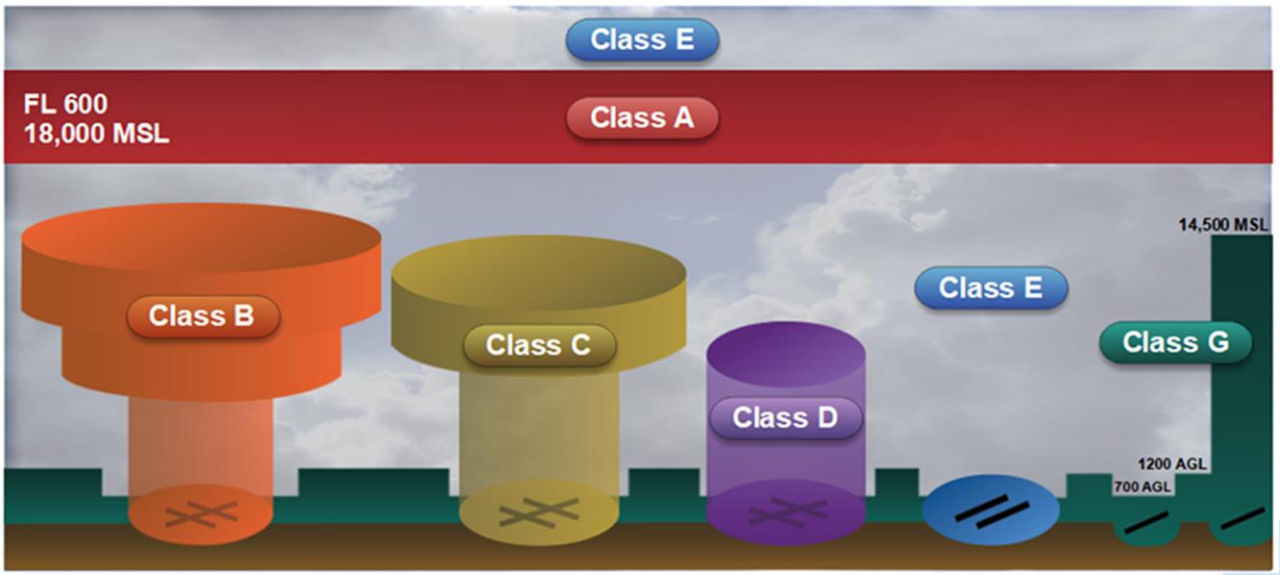
- Identify classes of airspace and their uses

References for this lesson are as follows:

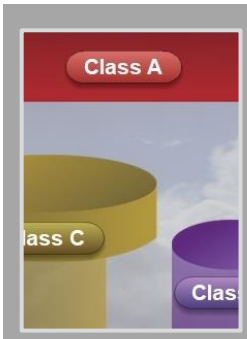
- Title 14 Code of Federal Regulations, Part 91
- FAA Order JO 7110.65, Air Traffic Control
- FAA Order JO 7400.2, Procedures for Handling Airspace Matters
- Aeronautical Information Manual (AIM)

Classes of Airspace

Controlled airspace has defined dimensions. ATC provides Air Traffic Services (ATS) within these dimensions for Instrument Flight Rules (IFR) flights and Visual Flight Rules (VFR) flights depending on the airspace classification. Airspace classes include Classes A, B, C, D, and E airspace where all aircraft operators are subject to certain pilot qualifications, operating rules, and equipment requirements.



Controlled



Class A

Class A airspace is generally that airspace from 18,000 feet Mean Sea Level (MSL) up to and including FL 600 (Flight Level Six Zero Zero).

- All operations must be conducted under IFR and are subject to ATC clearances and instructions
- Two-way radio communication must be established and maintained
- A 4096 transponder with functioning Mode C is required
- ADS-B transponder
- Pilot must be instrument rated and aircraft must be IFR equipped and certified
- Jet routes are contained in Class A airspace

Class B

Class B is generally that airspace from the surface to 10,000 feet MSL surrounding the nation's busiest airports in terms of airport operations or passenger enplanements.

Configuration:

- Individually tailored and consists of a surface area and two or more layers
- Designed to contain all published instrument approach procedures once an aircraft enters the airspace

To operate in Class B airspace:

- All aircraft require an ATC clearance to enter
- ATC provides separation services; therefore, two-way radio communication must be established and maintained
- A 4096 transponder with functioning Mode C is required
- ADS-B transponder
- IFR aircraft require operable VOR or TACAN navigation equipment

All aircraft (VFR or IFR) receive separation services while in this airspace.

Student pilots may **NOT** operate an aircraft on a solo flight unless:

- Student pilot has received instruction on that specific Class B airspace
- Student pilot's logbook has been endorsed within the preceding 90 days verifying instruction

Class C

Class C is generally that airspace from the surface to 4,000 feet above the airport elevation (charted in Mean Sea Level [MSL]) surrounding those airports that have an operational control tower, service provided by a Radar Approach Control, and a certain number of IFR operations or passenger enplanements.

Configuration:

- Individually tailored and usually consists of a surface area with a 5 NM radius
- A circle with a 10-NM radius that extends no lower than 1,200 feet up to 4,000 feet above the airport elevation
- An outer area that is not charted
  - Non-regulatory airspace surrounding designated Class C airspace airports wherein ATC provides radar vectoring and sequencing on a full-time basis for all IFR and participating VFR aircraft

To operate in Class C airspace:

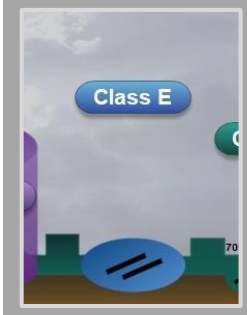
- ATC provides separation services; therefore, two-way radio communication must be established and maintained
  - VFR aircraft do not require a clearance to enter, but entry may be denied
- Two-way communications, ADS-B transponder and a 4096 transponder with functioning Mode C are required
- VFR aircraft are separated only from IFR aircraft, and IFR aircraft are separated from all other aircraft

Class D

Class D is generally that airspace from the surface to 2,500 feet above the airport elevation (charted in MSL) surrounding those airports that have an operational control tower.

Configuration:

- Individually tailored
- Normally designed to contain published instrument approaches
- ATC provides separation between IFR aircraft
- No separation services are provided to VFR aircraft.



Class E

Generally, if airspace is **NOT** Class A, Class B, Class C, or Class D, and it is controlled airspace, it is Class E.

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.

Federal airways (“Victor”) and low altitude RNAV routes (“Tango”) are Class E airspace and, unless otherwise specified, extend upward from 1,200 feet Above Ground Level (AGL) to, but **NOT** including, 18,000 feet MSL.

When designated as a surface area, the airspace will be configured to contain all instrument procedures.

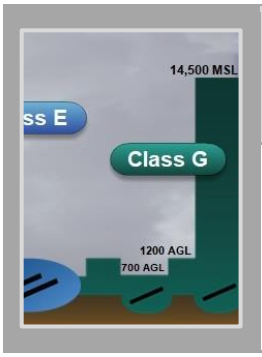
There is **NO** communication requirement or separation provided for VFR aircraft.

Generic controlled airspace consisting of airways and controlled areas between airways.

To qualify for Class E surface area, the airport must have weather observation and reporting capabilities.

***Note**: There are additional requirements for ADS-B equipment in Class E airspace over the Gulf of Mexico from the coastline of the United States out to 12 NM.*

Uncontrolled Airspace



Class G	Class G airspace (uncontrolled) is that portion of airspace that has **NOT** been designated as Class A, Class B, Class C, Class D, or Class E airspace.
Class G airspace normally extends from the surface upwards to the base of the overlying controlled airspace. Vector aircraft in Class G airspace only upon pilot request and as an additional service.	

Note: *While separation standards do not exist in certain airspace classes for VFR aircraft, the primary purpose of the ATC system is to prevent collisions between aircraft operating in the system. Controllers shall give first priority to separating aircraft and issuing safety alerts.*

Knowledge Check A

REVIEW what you have learned so far about the classes of airspace. ANSWER the questions listed below.

1. Which class of airspace does **NOT** require an ATC clearance? *(Select the correct answer.)*
   - ❑ Class A
   - ❑ Class B
   - ❑ **Class C**

2. The airspace that generally extends from the surface to 10,000 feet MSL and surrounds a busy airport is designated as _____ airspace. *(Select the correct answer.)*
   - ❑ Class A
   - ❑ **Class B**
   - ❑ Class C

3. Which class of airspace is uncontrolled? *(Select the correct answer.)*
   - ❑ Class D
   - ❑ Class E
   - ❑ **Class G**

4. Which class of airspace is generally that airspace from the surface to 2,500 feet above the airport elevation? *(Select the correct answer.)*
   - ❑ Class E
   - ❑ **Class D**
   - ❑ Class G

5. Which airspace has **NO** defined vertical limit? *(Select the correct answer.)*
   - ❑ Class D
   - ❑ **Class E**
   - ❑ Class B

Temporary Flight Restrictions

Temporary Flight Restrictions (TFRs) are published via Flight Data Center Notice to Air Missions (FDC NOTAM). TFRs are issued within the sovereign airspace of the United States and its territories to restrict certain aircraft from operating within a defined area on a temporary basis to protect persons or property in the air or on the ground.

TFRs may be issued for:		
		
Aircraft relief activities following a disaster	Aircraft accident/incident sites	Disaster or hazardous situations
		
Aviation or ground resources engaged in wildfire suppression	Support of VIP movements	Reasons of national security

Knowledge Check B

REVIEW what you have learned so far about TFRs. ANSWER the question listed below.

1. Why are TFRs issued? *(Select the correct answer.)*
   - ❑ To restrict all aircraft from operating within a defined area on a permanent basis
   - ❑ **To restrict certain aircraft from operating within a defined area on a temporary basis**
   - ❑ To restrict certain aircraft from operating within a defined area on a permanent basis

Classes of Airspace Summary

This lesson explained how airspace is classified, organized, and operated by ATC and the purposes of TFRs.

FACILITATOR INSTRUCTIONS	DELIVERY METHOD
■ This portion of training will be conducted by the facilitator ■ Instruct students to navigate to the study aid ***Airspaces Quick Reference Chart*** in ***Student Guide*** ■ Facilitator will review content presented in the study aid ■ Instruct students to reference the study aid while continuing module ■ Address questions and facilitate a brief discussion of the content in the study aid	Study Aid **EST. RUN TIME** 15 mins.

STUDY AID: AIRSPACES QUICK REFERENCE CHART

AIRSPACE FEATURES	CLASS					
	A	**B**	**C**	**D**	**E**	**G**
Entry Requirements	IFR Clearance	ATC Clearance	Prior two-way communications	Prior two-way communications	None	None
Minimum Pilot Qualifications	Instrument rating	Private or student certificate location dependent	Student certificate	Student certificate	Student certificate	Student certificate
Two-Way Radio Communications	Yes	Yes	Yes	Yes	Not required	Not required
Special VFR Allowed*	No	Yes	Yes	Yes	Yes	N/A
VFR Aircraft Separation	N/A	All	IFR	Runway operations	None	None
Traffic Advisories	N/A	Yes	Yes	Workload permitting	Workload permitting	Workload permitting

* Authorized by an ATC clearance and conducted within the lateral boundaries of the surface area.

Note: *IFR operations in controlled airspace require filing an IFR flight plan and an appropriate ATC clearance.*

FACILITATOR INSTRUCTIONS	DELIVERY METHOD
■ **ENABLE *Special Use Airspace*** lesson in Blackboard ■ Instruct students to navigate to the ***Special Use Airspace*** lesson within Blackboard ■ Instruct students to work individually through the lesson content ■ Upon completion of the lesson students should review previously introduced content or wait quietly until other students have completed	Blackboard **EST. RUN TIME** 20 mins.

SPECIAL USE AIRSPACE

Purpose: This lesson defines Special Use Airspace (SUA), enabling air traffic controllers to enforce regulations concerning the nature of activities held within these reserved areas.

Objective:

- Identify SUA, as designated in the United States

References for this lesson are as follows:

- FAA Order JO 7110.65, Air Traffic Control
- FAA Order JO 7400.2, Procedures For Handling Airspace Matters

Special Use Airspace

Special Use Airspace (SUA) is airspace of defined dimensions identified by an area on the surface of the Earth wherein activities must be confined because of their nature and/or wherein limitations may be imposed upon aircraft operations that are not a part of those activities.

Special Use Airspace Programs

SUA programs are designed to:

- **Accommodate** National Defense, security, and welfare and necessary military activity
- **Identify** where activity occurs
- **Protect** other users from hazardous operations

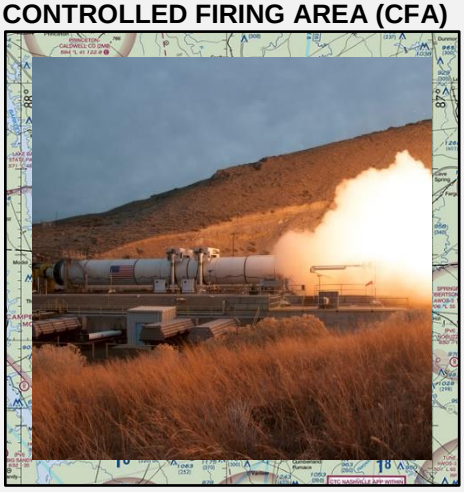
Controlling Agency and Using Agency

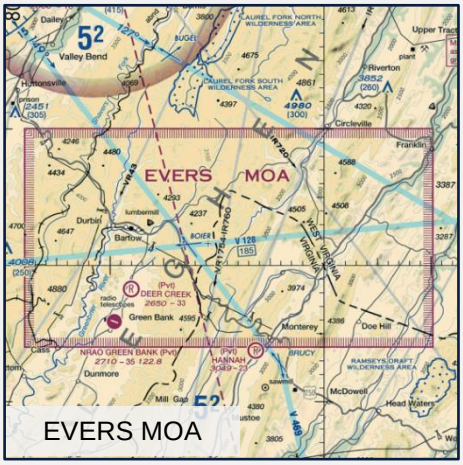
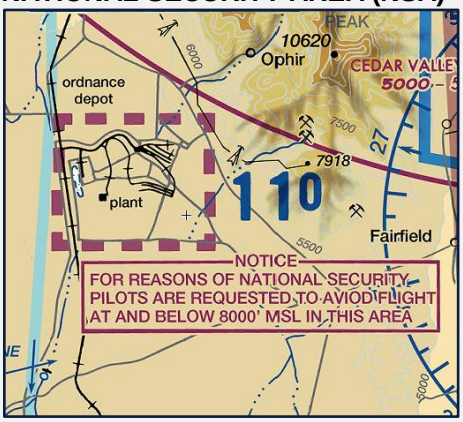
CONTROLLING AGENCY	USING AGENCY
The controlling agency is the FAA ATC facility that exercises control of the airspace when an SUA area is **NOT** activated.	The using agency is the military unit or other organization whose activity established the requirement for the SUA.
■ A military ATC facility may be assigned as the controlling agency if the service area office and the concerned Air Route Traffic Control Centers (ARTCC) are all in agreement ■ A controlling agency must be designated for each joint-use SUA area	■ Ensures that the airspace is used only for its designated purpose ■ Ensures that scheduling procedures are established and utilized ■ Ensures the controlling agency is kept informed of schedule changes and completion of activities for the day ■ Ensures a point of contact is made available to communicate with the controlling agency about schedules, access in emergencies, weather diversions, etc.

Types of Special Use Airspace

There are 7 types of SUA:

TYPE	DESCRIPTION	EXAMPLE(S)
PROHIBITED AREA (P)  P-56	A prohibited area is airspace established under Title 14 CFR part 73 provisions, within which no person may operate an aircraft without permission of the using agency. Prohibited areas are established when necessary to prohibit flight over an area on the surface in the interest of national security and welfare. ■ Established in the interest of national security and welfare ■ Begins at the surface of the Earth and extends upward to a specified altitude ■ Is depicted on aeronautical charts, identified by the letter "P," a dash, and a number	■ Washington DC, U.S. Capitol and White House ■ Amarillo, TX, Pantex nuclear assembly plant ■ Naval Base Kitsap, Washington ■ Mount Vernon, VA, home of George Washington
RESTRICTED AREA (R)  R-3804	A restricted area is airspace established under Title 14 CFR part 73 provisions, within which the flight of aircraft, while not wholly prohibited, is subject to restriction. ■ Established when activities are considered hazardous to nonparticipating aircraft ■ Identified by the letter “R,” a dash, and number on aeronautical charts	Invisible hazards to aircraft such as: ■ Artillery firing ■ Aerial gunnery ■ Missile activities
WARNING AREA (W)  W-186	A warning area is airspace of defined dimensions (extending from 3NM outward from the coast of the United States), designated to contain activity that may be hazardous to nonparticipating aircraft. ■ Purpose is to warn nonparticipating pilots of the potential danger from activities being conducted ■ Identified with the letter “W” prefix followed by a dash; a two- or three-digit number ■ It can be located over domestic waters, international waters, or both	Missile test sites such as: ■ Area surrounding Kauai

TYPE	DESCRIPTION	EXAMPLE(S)
ALERT AREA (A)  	An alert area is airspace wherein a high volume of pilot training or an unusual type of aeronautical activity is conducted. ■ Designed to inform pilots of activities they might otherwise not expect to encounter ■ Identified by the letter “A” prefix followed by a dash, a two- or three-digit number ■ Must not extend into Class A, B, C, and D airspace, or Class E airport surface areas ■ Should avoid Federal airways, major terminal areas, and high volume VFR routes ■ Only those activities that do not pose a hazard to other aircraft may be conducted in an Alert area ■ Must conduct activities in accordance with VFR, and in compliance with applicable Sections of Title 14 CFR	Activities such as: ■ Pilot training ■ Parachute jumping ■ Glider towing ■ Or an unusual type of aerial activity
CONTROLLED FIRING AREA (CFA) 	A controlled firing area is airspace designated to contain activities that, if not conducted in a controlled environment, would be hazardous to nonparticipating aircraft. ■ Provide a means to accommodate, without impact on aviation, certain hazardous activities that can be immediately suspended if a nonparticipating aircraft approaches the area ■ Not depicted on an aeronautical chart ■ Control activities that can be immediately suspended when a nonparticipating aircraft is approaching	Activities such as: ■ Ordnance disposal ■ Blasting ■ Static testing of large rocket motors

TYPE	DESCRIPTION	EXAMPLE(S)
MILITARY OPERATIONS AREA (MOA)  EVERS MOA	A military operations area (MOA) is airspace designated outside of Class A airspace, to separate or segregate certain nonhazardous military activities from IFR traffic and to identify for VFR traffic where these activities are conducted. ■ Designated to contain nonhazardous, military flight activities ■ Identified by a name followed by the acronym MOA	Activities such as: ■ Air combat maneuvers ■ Air intercepts ■ Low altitude tactics
NATIONAL SECURITY AREA (NSA)  	A national security area consists of airspace of defined vertical and lateral dimensions established at locations where there is a requirement for increased security of ground facilities. ■ Designated to enhance national security and protect national assets ■ Identified by a red dotted line surrounding the area ■ Have minimum dimensions that promote the protection of the national asset or area ■ Requested to voluntarily avoid flying through an NSA	■ Areas that protect national assets ■ Areas that need protection in the interest of national security

Note: *Pilots are requested to voluntarily avoid flying through an NSA. When it is necessary to provide a greater level of security, flight in an NSA may be temporarily prohibited pursuant to the provisions of Title 14 CFR 99.7, Special Security Instructions. Where there is a need to restrict flight operations in an NSA, the required restriction will be issued by Airspace Regulations and ATC Procedures Group and disseminated via NOTAM.*

Knowledge Check C

REVIEW what you have learned so far about SUA. ANSWER the questions listed below.

1. The SUA that is necessary to confine activities considered hazardous to nonparticipating aircraft is called a _____ Area. *(Select the correct answer.)*
   - ❑ Prohibited
   - ❑ **Restricted**
   - ❑ Terminal Control

2. What type of SUA is found over international waters? *(Select the correct answer.)*
   - ❑ Prohibited Area
   - ❑ Controlled Firing Area
   - ❑ **Warning Area**

3. Prohibited Area vertical airspace begins at _____. *(Select the correct answer.)*
   - ❑ 3,000 feet
   - ❑ **The Earth's surface**
   - ❑ 1,500 feet

4. Airspace in which a high volume of pilot training takes place would be designated as a(n) _____. *(Select the correct answer.)*
   - ❑ Restricted Area
   - ❑ Controlled Firing Area
   - ❑ **Alert Area**

Special Use Airspace Summary

This lesson explained how ATC classifies and organizes Special Use Airspace and has shown how to identify Special Use Airspace, as designated in the United States.

FACILITATOR INSTRUCTIONS	DELIVERY METHOD
■ Instruct students to locate student exercise ***Airspaces*** in the printed ***Student Guide***	Exercise
■ Divide students into teams	**EST. RUN TIME**
■ Instruct teams to work together to answer each question	20 mins.
■ At the end of the exercise, the exercise will be evaluated during a whole class discussion	
■ Randomly select students to represent teams and provide answers orally	
■ Instruct other students to assess their answers when provided	
■ Encourage student discussion with this exercise and resolve any questions	

EXERCISE: AIRSPACES

Purpose

This exercise promotes interaction and provides a review of Classes of Airspace and Special Use Airspace.

Directions

Read each question. In the column labeled Answer, put your answer.

Detailed Facilitator Instructions: *This exercise will be completed in teams. Instruct students to work in teams and answer questions. At the completion of the exercise randomly select among the teams to provide answers. Clarify any misunderstandings students may have on the content presented in the exercise.*

QUESTION	ANSWER
1. Federal airways "Victor" are in which class of airspace?	**Class E**
2. Uncontrolled airspace is designated as which class of airspace?	**Class G**
3. Jet routes are in which class of airspace?	**Class A**
4. What determines the upper limits of Class G airspace?	**The base of the overlying controlled airspace**
5. What is one of the requirements for an aircraft operating in Class B airspace?	**ATC Clearance, two-way communications, 4096 transponder with Mode C**
6. VFR flight is not permitted in which class of airspace?	**Class A**
7. Generally, that airspace from the surface to 2,500 feet above the airport elevation with an operational control tower is classified as what class airspace?	**Class D**
8. What type of SUA is over the White House?	**Prohibited Area**
9. In what type of airspace would a high volume of pilot training take place?	**Alert Area**
10. What type of SUA is found over international waters?	**Warning Area**
11. What type of SUA is over an aerial gunnery range over land?	**Restricted Area**
12. What does “MOA” stand for?	**Military Operations Area**

FACILITATOR INSTRUCTIONS	DELIVERY METHOD
■ **ENABLE *Cleared to Land*** game in the Blackboard ■ Instruct students to navigate to the ***Exercises and Activities*** folder in Blackboard ■ Instruct students to complete ***Cleared to Land,*** the board game activity located in this folder ■ The game will be performed individually ■ Instruct students to answer each question ■ Upon completion the game will evaluate the students' performance	Game **EST. RUN TIME** 15 mins.

GAME: CLEARED TO LAND (ANSWER KEY)

Note: *The questions in the key and their distractors may appear in a different order than displayed here due to game question randomization.*

Question	Answer
1. Within which class(es) of airspace does ATC provide separation services where two-way radio communication must be established and maintained?	**Class A** **Class B** **Class C** Class E
2. What is generally the vertical limit of Class E airspace?	**Up to, but not including, 18,000 MSL** 2,500 feet Mean Sea Level (MSL) 2,500 feet above airport elevation 18,000 feet MSL up to and including FL 600
3. A 4096 transponder with functioning Mode C is required for which classes of airspace?	**Class A** **Class B** **Class C** Class D Class E Class G
4. Match the class of airspace to its unique feature.	All operations must be conducted under IFR – **Class A** Airspace is designed to accommodate busiest airports – **Class B** Normally designed to contain published instrument approaches – **Class D** Made up of federal airways – **Class E** Only vector aircraft on pilot request – **Class G**

Question	Answer
5. Student pilots can operate on a solo flight in Class B airspace if they have _____.	**Been endorsed in their logbook within the previous 90 days of their flight** **Received instruction on that specific Class B airspace** Been endorsed in their logbook within 120 days of their flight Received verbal permission to operate in Class B airspace
6. Select the following true statements about Special Use Airspace (SUA).	**Aircraft may have limitations that aren't part of SUA activities** **SUA has dimensions defined by an area on the surface of the Earth** **Planned activities are confined to SUA because of their nature** SUA has dimensions defined by an area in airspace
7. The _____ is the FAA ATC facility that controls the airspace when the Special Use Airspace (SUA) is not activated.	**Controlling Agency** Control Tower Pilot's Union Airport Manager
8. Which statement is **NOT** true about Special Use Airspace (SUA)?	**SUAs place limitations on all aircraft that enter Special Use Airspace** SUAs accommodate National Defense, security and welfare, and military activity SUAs protect other users from hazardous operations SUAs identify where activity occurs
9. Which airspace is **NOT** an official Special Use Airspace (SUA)?	**Military Activity Area** Prohibited Area National Security Area Warning Area
10. What are all aircraft operators subject to in Classes A, B, C, D, and E airspace?	**Equipment requirements** **Certain pilot qualifications** **Operating rules** Passenger enplanement

SUMMARY

The purpose of this module was to explain how Air Traffic Control (ATC) classifies, organizes, and uses classes of airspace and Special Use Airspace (SUA).

In accordance with Title 14 Code of Federal Regulations, Part 91, General Operating and Flight Rules; FAA Orders JO 7110.65, Air Traffic Control, and JO 7400.2, Procedures for Handling Airspace Matters; and the Aeronautical Information Manual (AIM), you should now be able to:

- Identify classes of airspace and their uses
- Identify SUA, as designated in the United States

FACILITATOR INSTRUCTIONS	DELIVERY METHOD
■ Navigate to the ***Parking Lot*** link within Blackboard, and review any student questions ■ Address ***Parking Lot*** questions and facilitate a brief discussion of the lesson content ■ Instruct students to prepare for the End-of-Module test by putting away their Student Guides	Facilitated Discussion **EST. RUN TIME** 15 mins.

FACILITATOR INSTRUCTIONS	DELIVERY METHOD
■ **ENABLE *Airspace End-of-Module Test*** link in Blackboard ■ Instruct students: ○ Clear desks ○ Do not write anything during or after the test ○ Navigate to the ***Airspace End-of-Module Test*** link in Blackboard ○ Once they are satisfied with their responses, click “Save and Submit;” do not click “OK” to review results until directed to do so ○ Choose “Cancel” if they receive a warning message that the test has unanswered questions; choosing OK will submit the test and not allow them to go back and answer the questions ○ Leave the room after submitting the test and return at the “Be Back” time ■ ***Note:*** *This test is scored but not graded* ■ During test, monitor students to ensure a secure testing environment ■ Identify the most commonly missed questions by reviewing student statistics in Blackboard ■ Instruct students to click “View Results” when ready to review commonly missed questions ■ Review commonly missed questions with students	Blackboard Assessment **EST. RUN TIME** 15 mins.

END-OF-MODULE TEST (ANSWER KEY)

Note: *Test questions in Blackboard are presented to the students in random order. Please be aware the test key question order will not match the student version.*

1. The lower limit of Class B airspace is _____. *(Select the correct answer.)*
   - ❑ **The Earth's surface**
   - ❑ 1,200 feet AGL
   - ❑ 1,200 feet MSL
   - ❑ 1,500 feet AGL

   Reference(s): JO 7110.65, Pilot/Controller Glossary, CFR, 61.95; AIM, Chap. 3

2. The upper vertical limit of Class A airspace is _____. *(Select the correct answer.)*
   - ❑ **FL 600**
   - ❑ Up to, but not including FL 450
   - ❑ Up to, but not including FL 600
   - ❑ FL 450

   Reference(s): JO 7110.65, Pilot/Controller Glossary; CFR, 71.31; 91.215; AIM, Chap. 3

3. Which class of airspace generally extends upward to 10,000 feet MSL? *(Select the correct answer.)*
   - ❑ **Class B**
   - ❑ Class A
   - ❑ Class C
   - ❑ Class D

   Reference(s): JO 7110.65, Pilot/Controller Glossary; CFR, 71.31; 91.215; AIM, Chap. 3

4. The upper limit of Class G airspace is _____. *(Select the correct answer.)*
   - ❑ **The base of the overlying airspace**
   - ❑ 1200 AGL
   - ❑ The base of Class E airspace
   - ❑ 1200 MSL

   Reference(s): JO 7110.65, Pilot/Controller Glossary, CFR, 61.95; AIM, Chap. 3

5. What airspace is generally established from the surface to 4,000 feet above the airport elevation and has an operational control tower? *(Select the correct answer.)*
   - ❑ **Class C**
   - ❑ Class B
   - ❑ Class D
   - ❑ Class E

   Reference(s): JO 7400.0, Chap 25, p. 7

6. What airspace does **NOT** require a transponder? *(Select the correct answer.)*
   - ❑ **Class D**
   - ❑ Class A
   - ❑ Class C
   - ❑ Class B

   Reference(s): JO 7400.0, Chap 25, p. 9

7. In which airspace does a VFR aircraft need to receive a clearance from ATC to enter this airspace? *(Select the correct answer.)*
   - ❑ **Class B**
   - ❑ Class C
   - ❑ Class D
   - ❑ Class A

   Reference(s): JO 7400.0, Chap 25, p. 5

8. VFR aircraft are separated only from IFR aircraft in which airspace? *(Select the correct answer.)*
   - ❑ **Class C**
   - ❑ Class B
   - ❑ Class D
   - ❑ Class E

   Reference(s): JO 7400.0, Chap 25, p. 7

9. A Warning Area is established beyond _____ NM from the coast of the United States. *(Select the correct answer.)*
   - ❑ **3**
   - ❑ 1
   - ❑ 5
   - ❑ 12

   Reference(s): JO 7400.2, Chap. 24, p. 18

10. Airspace of defined dimensions, confined activities, and limitations imposed on nonusers is identified as _____ airspace. *(Select the correct answer.)*
    - ❑ **Special Use**
    - ❑ Controlled
    - ❑ Class E
    - ❑ Class G

    Reference(s): JO 7400.2, Chap. 25, p. 14