

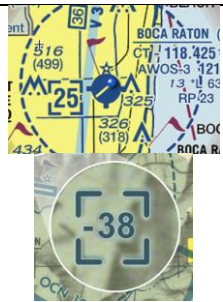



# ACS Cheat Sheet: Task C. Weather (PHAK 12, 13)

## Ground Lesson 3










### a. Types of airspace/airspace classes and associated requirements and limitations.

Airspace	Where it is and what shape	Requirements	How it looks
Class <b>A</b> (Altitude)	18,000 MSL – 60,000 MSL	IFR flight plan, IFR, Mode C	
Class <b>B</b> (Big Boeing)	Large Airports Uniquely shaped, by solid <b>blue</b> lines; floors and sealings in MSL Includes “Mode C” veil 30NM from primary airport, SFC – 10,000ft	Two-way communications, mode C transponder when in or above, ATC clearance, PPL	
Class <b>C</b> (Congested)	Large but less busy airports Solid <b>magenta</b> lines Extends – Laterally for 5NM, vertically 4000ft AGS (MSL given) Shelf Area – Laterally to 10NM, from 1200-4000ft Outer area – 20NM, recommended (not required) to contact ATC	Two-way communication and mode C transponder when in or above  If in secondary airport still must communicate with primary ATC	
Class <b>D</b> (Dialog)	Only exists when tower is operational <b>Blue dashed line</b> circle radius 5 SM/4.4NM 2,500ft AGL, MSL given in hundreds	Two-way communication (reading back the tail number)  Don't need a specific clearance	 “-“means “up to but not including”
Class <b>E</b> (Elsewhere)	Protect federal airways – Begin at 1200ft AGL and extend 4nm or 4.5° on either side, upper limit is 17,999ft MSL (then Class A) then again at 60,000ft to space Inside areas surrounded by <b>magenta</b> dashed line E goes to surface Inside fuzzy <b>magenta</b> vignette Class E goes from surface to 700ft AGL	No communication required but controlled	
Class <b>G</b> (Go for it)	Uncontrolled; can be as high as 14,500MSL unless specified; this is rare and is usually 1,200 AGL	No communication requirement	


b. Charting symbology.

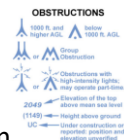
1. **Latitude** – Lines are always 60nmi apart
2. **Longitude** – Distance between them varies
3. **Blue** for controlled airports **Magenta** for uncontrolled airports

No public services	Fuel available from 1000-1600LT	Private/restricted
		

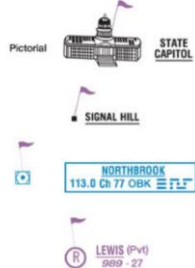
4. Hard-surfaced >1,500ft long shown with runway symbol
  - i. Less than 8,069ft airport symbol shown in circle  otherwise no circle 
5. **Military Airports** – A circle in a circle  , require emergency or permission
  - i. Joint use has tick marks  , large joint use are depicted as civil airports 
6. Abandoned airports –  if >3,000ft
7. Data grouping – Name, Identifier in parentheses, elevation above MS, length of longest runway in hundreds of feet
  - i. “L” – surface lighting sunset to sunrise
  - ii. “\*L” – Lighting is pilot controlled
  - iii. “C” – for CTAF
  - iv.  – Part time tower
  - v. “CT” – control tower
  - vi. “ATIS” – for ATIS
  - vii. “U” or “###.##” – Unicom frequency
  - viii. “R” – Right traffic non-standard traffic pattern

8. VRF Aeronautical Charts

- i. MEF (Maximum Elevation Figure) in hundreds of feet  Highest feature in area
- ii. Dot shows location for 200ft obstacles near airport or higher than terrain
- iii. VFR Checkpoints – ATC will know these for location reporting
  - I. Black symbol or flags = prominent structure, Blue = VOR, Magenta = Airpor









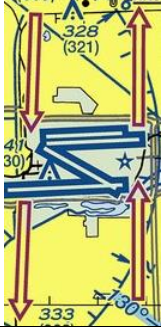
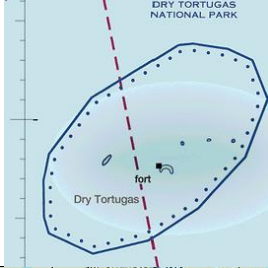

VFR CHECKPOINTS



c. **Special use airspace (SUA), special flight rules areas (SFRA), temporary flight restrictions (TFR), and other airspace areas.**

1. **Special Use Airspace** – Airspace wherein activities must be confined because of their nature, or wherein limitations are imposed
2. **Special Flight Rules Areas** – A region in which the normal regulations of flight do not apply and special training may be required; like around Washington D.C.

Airspace Area	Meaning	How it looks
Temporary Flight Restrictions	Temporarily restricted access to certain designated areas of airspace, need to get clearance from ATC if you need to fly through them	
Prohibited Areas	No entry under any circumstance  Area Marked with <b>BLUE</b> hash and P following number	
Restricted Areas	Can fly through with permission, more details available on the sectional chart  Areas Marked with <b>BLUE</b> hash and R following number	
Warning Areas	Use at own risk (international waters), unusual or invisible risks	
Military Operations Areas	Marked with <b>MAGENTA</b> hash and the name  No special permission required but can be dangerous	
Alert Areas	Marked with <b>MAGENTA</b> hash and a following number  High volume training, no special permission required	
Military Training Routes	IR = instrument, VR = visual, number indicates altitudes Four digits = <1500' AGL Three digits = >1500' AGL	

National Security Areas	Powerplants, ammunition Voluntarily avoid	
Parachute Jumping Areas	High activity of skydivers	
Victor Airways	Class E from 1,200 AGL - 18,000 AGL; point to point VOR navigation; like "sky highways"	
VFR Flyways	General flight path to SFC, no ATC clearance; helps avoid busy airspace	
VFR Corridors	"tunnel" through B airspace, no ATC clearance	
VFR Transition Routes	Specific course at specific altitude; NEEDS ATC CLEARANCE	
Special Conservation Areas	Protect national parks, blue line with dots inside, stay >2000' AGL	
Terminal Radar Service Areas	Voluntary radar service when requested; gray line	

d. **Speed Limits** – NO FASTER THAN THE SPEED OF SOUND

1. **250** knots below 10000' MSL
2. **200** KIAS under Class B, in corridor, or within 4NM of Class C or D

## VFR Minimums

It is a rite of passage to memorize these.

Some you can reason through if you memorize the pattern. For example, the most generous VFR minimums are for Class G, during the day, and at low altitudes.

Airspace	Visibility Requirement		Cloud Clearance Requirement	Mnemonic	
Class A	None		None	IFR Only	
Class B	3 SM		Clear of clouds	3 COC	
Class C	3 SM		1,000' above	3 152	
Class D	3 SM		500' below		
Class E	< 10,000 MSL	3 SM	2,000' horizontally	5 111	
	≥ 10,000 MSL	5 SM	1,000' above 1,000' below 1 SM horizontally		
Class G	≤ 1,200' AGL	Day	3 SM	Clear of clouds	1 COC
		Night	1 SM		1 152 at night
	> 1,200' AGL and < 10,000' MSL	Day	3 SM	1,000' above 500' below	3 152
		Night	1 SM	2,000' horizontally	1 152 at night
	> 1,200' AGL and > 10,000' MSL	5 SM	1,000' above 1,000' below 1 SM horizontally	5 111	