Airport Apron

1. Also called non-movement area
2. Displayed on airport diagram as dark gray area with crosses
3. No-permission needed to taxi in these areas
Runway Markings: Thresholds

- Permanently displaced (pre threshold area fit for aircraft movement)
- Temporarily displaced for 6 months or less (runway designator is not moved)
- Pre threshold area not fit for aircraft movement
- Pre threshold area fit for use by aircraft as a stopway only
Closed Runways

Xs on the runway indicate that it is closed and may not be used.
Wind Indicators
What is VFR?

1. Visual Flight Rules
2. Flying by looking outside (visual)
3. Avoiding clouds
4. Avoiding other traffic visually
VFR Weather Minimums

1. Visibility - 3 miles
2. Ceilings - 1000 ft
3. Cloud Clearances
   a. 1000 ft above
   b. 500 ft below
   c. 2000 in between
4. These minimums change depending on whether it’s day or night or the type of airspace
Airspace: Class Gulf

Communication: No air traffic control for IFR or VFR aircraft

Day Weather Minimums:
- Below 1,200 AGL: 1 sm, Clear of Clouds
- Above 1,200 AGL: 1 sm, Standard 1-5-2

Night Weather Minimums:
- 3 sm visibility, Standard 1-5-2

Speed Limit: 250 knots or less below 10,000 MSL
Airspace: Class Echo

Communication: No communication is required to enter Class E, but ATC still handles IFR aircraft

Weather Minimums:

- Below 10,000: *Standard 1-5-2*
- Above 10,000: 5 sm, 1000 above, 1000 below, 1 sm horizontal

Speed Limit: 250 knots or less below 10,000 MSL
Airspace: Class Delta

Communication: Two-way radio communication must be established

Weather Minimums:
  Standard 1-5-2

Shape: Class D is the smallest of all of the airspaces

Aircraft: Two-way radio

Speed Limit: 200 knots or less below below 2,500 AGL within 4 nm
Airspace: Class Charlie

Communication: Two-way radio communication must be established

Weather Minimums:
   Standard 1-5-2

Shape: Class C airspace is smaller than Bravo airspace and usually only consists of two levels

Aircraft: Two-Way Radio w/Mode-C Transponder

Speed Limit: 200 knots or less below below 2,500 AGL within 4 nm
Airspace: Class Bravo

**Communication:** Must be “cleared into the class bravo airspace”

**Weather Minimums:**
- 3 miles visibility
- Clear of clouds

**Shape:** Think of it as an upside-down wedding cake

**Aircraft:** Two-Way Radio w/ Mode-C Transponder

**Speed Limit:**
- 250 knots below 10,000’
- 200 knots below a floor
Airspace: Class Alpha

All aircraft must be flying on an IFR flight plan.

Class A airspace is located at and above 18,000 ft MSL until FL600, which means a pressure altitude of 60,000 ft where it is.
TRSA (Terminal Radar Service Area)

1. Area of airspace that has the capabilities of Class C airspace, but aircraft are not required to participate
2. You may fly through a TRSA without contacting ATC
Special Use Airspace

1. Military Operation Area (MOA)
2. Controlled Firing Area (CFA)
3. Prohibited Area
4. Restricted Area
5. Alert Area
6. Warning Area
7. TFRs
Military Operations Areas

1. High Density Aircraft in the vicinity
2. Caution areas for pilots
3. MOAs aren’t always active, they can be hot or cold
4. Lights-Out operations can be encountered
5. It is recommendable, but not required to avoid MOAs
Controlled Firing Areas

1. Airspace designated to contain activities that if not conducted in a controlled environment would be hazardous to nonparticipating aircraft.

2. Operations must be stopped when non-participating aircraft approach the airspace.
Prohibited Areas

1. Prohibited areas are areas where non-participating aircraft **may not** enter
2. Established for security or other reasons associated with the national welfare
Restricted Areas

1. Areas where operations are hazardous to nonparticipating aircraft and contain airspace within which the flight of aircraft is subject to restrictions
2. May not be entered without permission from the controlling agency
Alert Areas

1. Contain a high volume of pilot training or an unusual type of aerial activity
2. Caution should be exercised while flying in Alert Areas
3. Authorization is not required to enter
Warning Areas

1. Similar in nature to restricted areas
2. A warning area may be located over domestic or international waters or both
3. Communication is not required, but highly advisable
Temporary Flight Restrictions

1. Areas where aircraft flight is limited for a designated period of time
2. TFRs should be checked before every flight
VFR Charts

1. Sectional Charts
2. Terminal Area Charts
3. World Aeronautical Charts (being discontinued in the US)
4. Fly-Charts
(Concise) Sectional Chart Legend

You (PIC) and your friends are flying from MSN to C77 in a Cessna 172 skyhawk during the day.

You plan to fly the whole flight at 3000 ft MSL, and if you cannot do that, you will cancel the flight.
Scenario: MSN - C77

What type of airspace exists at MSN, and what does this mean for aircraft requirements, communication requirements, and weather minimums?
Scenario: MSN - C77

What type of airspace will you enter as you leave the Madison Class C, assuming you have reached cruising altitude.
Scenario: MSN - C77

Your passenger looks out the window and sees Janesville airport directly below. You are at your cruising altitude, what should have happened by now?
Scenario: MSN - C77

After leaving Janesville’s airspace, you continue directly south and get slightly lost over the city of Rockford. If you remained at your cruising altitude, have you violated any airspace? What services are available to you?
Scenario: MSN - C77

After Rockford Approach vectored you back to Poplar Grove, you enter the pattern for runway 30. There is no wind, what will be your heading when you land? There is no wind, what is your heading on downwind? Should you fly a standard pattern or non-standard?
Scenario: MSN - C77

If pattern altitude is 1000’ AGL, what type of airspace will you be in while flying the pattern?

Will this change as you descend to a landing?
Scenario: MSN - C77

Knowing that runway 30 is the longest runway at C77, how long do you expect the runway to be?
Scenario: MSN - C77

Current Conditions on Entire Route:

Ceilings: 3000’ AGL at MSN (887’ MSL)

Visibility: 3 statute miles

Can you make this flight legally at 3000’ ft MSL?
Questions?
Next Time

1. Tuesday, November 1st @ 6:00 p.m.
2. Topic: Airports/Airspace/Airport Operations cont’d