Weather Minimums 5 Exceptions to the 3-152 Rule

- 1. Class B: 3mi Visibilty, Clear of Clouds
- 2. >10kft: 5mi Visibility, 1000ft below and above the clouds, 1mi horizontal
- 3. Class G (SFC-1200ft AGL): 1mi Visibility, Clear of Clouds
- 4. Class G ((1200ft-10kftAGL): 1-152
- 5. Class G night within 1/2mi of the runway centerline (1mi Visibility, Clear of Clouds)

Daylight Visual Illusions (AIM 8-1-5)

- 1. Empty Field Myopia in Haze (eyes focus only a few feet in front of airplane)
- 2. Downsloping/Upsloping Runway
- 3. Wide vs Narrow Runway

Aircraft Documents to be Legal

- A Airworthiness Certificate
- **R** Registration Certificate
- **O** Operating Handbook
- W Weight & Balance Data

Aircraft Inspections to be Legal

- **A** Annual: Every 12 calendar months (91.409)
- **V** VOR every 30 days for IFR. (91.171)
- *I* 100hr inspection if for hire (91.409)
- **A** Altimeter (pitot static) 24 calendar months for IFR. (91.411)
- **7** Transponder every 24 calendar months. (91.413)
- **E** ELT: Every 12 cal months or ½ battery life (91.207)

Night Visual Illusions (AIM 8-1-5)

- 1. Horizon. Stars may look like lights on the ground
- 2. Looking straight at a light, and it begins to move (Auto Kinesis)

Pilot Documents to be Legal

- 1. Pilot Certificate
- 2. Medical
- 3. Govt Issued Photo ID.

Pilotage: Land Mark to Land Mark Flying

Dead Reckoning: Using NAVAIDs, wind correction, time, etc (instruments and cross country planning calculations)

Pilot Currency to be Legal

- 1. 3 take offs/lands in last 90 days if passengers are carried
- 2. BFR (Flight Review with Instructor or checkride every 2 years)
- 3. For Night, 3 takeoffs/lands in last 90days at night (1 hr after sunset, 1hr b4 sunrise to full stop

Medical Requirements (61.23)

1st Class: (Airline Transport Pilot)

- <40yrs 12 calendar months

- >= 40 yrs 6 calendar months

2nd Class: (Commercial)

12 calendar moths

3rd Class:

- <40yrs 60 calendar months

- >= 40 yrs 24 calendar months

Carbon Monoxide Poisoning (AIM 8-1-4)

- 1. Most likely from the exhaust having a leak.
- 2. Headache
- 3. Blurred vision
- 4. Dizziness
- 5. Drowsiness

Corrective action: Turn off heater, open fresh air vents, side windows, oxygen if available.

Supplemental Oxygen (91.211)

>12,500 -14kft and >30 minutes at that level

- Flight Crew requires oxygen

>14kft: Flight Crew requires oxygen

>15kft: Passengers must be offered oxygen

Lost Procedure (5 C's)

- 1. **Confess** to yourself that you are lost
- 2. *Climb* to minimum safe altitude
- 3. *Conserve* fuel (slow down)
- 4. **<u>Communicate</u>** to controlling agency. Start with FSS.
- 5. **Comply** with instructions (fuel permitting)

Hypoxia Symptoms (Lack of Oxygen) (AIM 8-1-4)

- 1. Headache
- 2. Euphoria
- 3. Visual Impairment
- 4. Drowsiness
- 5. Lightheaded

Note: These are the same as hyperventilation

Minimum Equipment List (MEL) VFR Flight Day (Tomato Flames) 91.205

T ach	<u>F</u> uel Guage
<u>O</u> il Pressure	<u>L</u> anding indicator lights
M P if complex	<u>A</u> Itimeter
<u>A</u> irspeed Indicator	<u>M</u> ag compass
<u>T</u> emp Guage (liquid)	<u>E</u> LT
<u>O</u> il temp	<u>\$</u> afety Belts

Safe to Fly? IMSAFE (AIM 8-1-1)

I liness

M edicine

S tress

A Icohol

F atigue

E ating

Minimum Equipment List (MEL) VFR Flight Night (FLAPS)

F uses

L anding light if for hire

<u>A</u> nti collision lights (day also if plane is '96 or newer)

P osition Lights

S ource of Energy

Pilot Privileges and Limitation (CFR 61.113)

- 1. Cannot fly for hire
- 2. Pilot must pay Pro Rata Share
- 3. Pilot can fly for a charity if certain rules are followed
- 4. Pilot can get reimbursed from the govt for search and rescue.
- 5. Can tow a glider if meet CFR requirements

Pilot Logbook & Currency

- Must log time that proves you are current to fly and/or take passengers
- 2. Not required to log all flights, just ones that prove you are legal and current to fly

METAR (AIM Chap 7)

- 1. AWOS, ASOS, ATIS
- 2. Reports ground conditions at an airport
- 3. Written METARs from internet of FSS or a radio ATIS is updated every hour unless there is a special weather issue
- 4. Radio AWOS or ASOS is updated real time

Medical Certificate Class & Duration (CFR 61.23)

- 1. Must have at least a 3rd Class
- 2. Took medical at <40yrs old, good for 60 calendar months
- 3. Took medical at >=40yrs old, good for 24 calendar months
- 4. You can get a 1st or 2nd Class Medical and it will function as your 3rd class for the above time.

Special Flight Permits

- 1. Also called a Ferry Permit
- 2. Needed if a plane isn't airworthy such as missing an inspection, etc.
- 3. Fill out form and get approval from the local FSDO.

AWOS: Automatic Weather Observation System

ASOS: Automatic Surface Observation System

ATIS: Recorded voice weather info every hour (unless a major chg happens) located at towered airports

TAF

- 1. Terminal Aerodrome Forecast
- 2. Published four times a day (every 6 hrs).
- 3. Legally only good for 5NM from the airport it is reported for
- P6SM stands for Plus 6 statute miles and is the highest visibility it will report

FA

- 1. Area Forecast
- 2. Good for a large areas (several states)
- 3. Issued three times daily
- 4. Good for enroute weather
- 5. Gives a 12hr forecast

SIGMET

- 1. For all aircraft
- 2. Non-Convective gives turbulence, icing
- 3. Convective gives thunderstorm info

AIRMET

- 1. Less severe weather
- Moderate turbulence, icing, surface winds >30 kts, widespread visibility issues
- 3. Tango: Turbulence or Wind
- 4. Zulu: Icing
- 5. Sierra: Low ceilings or visibility

Scuba Diving

- Do not fly immediately after scuba diving because you could get the 'bends'
- 2. Bends: Formation of nitrogen bubbles in the blood caused by decompression leading to extreme pain or death
- What are the scuba diving times?12hrs shallow dive, 24hrs deep dive.

Motion Sickness

- 1. Open Air Vents
- 2. Focus on horizon
- 3. Passengers can take Dramamine

Hyperventilation

- 1. Excessive oxygen
- 2. Caused by anxiety
- 3. Breath into a bag
- 4. Sing a song

Carbon Monoxide Poisoning

- 1. Probably caused by heat shroud around cracked muffler/exhaust
- 2. Headache, blurred vision, dizziness, drowsiness
- 3. Use CO2 detectors
- 4. Turn off heater, open windows

Alcohol

- 1. No alcohol 8 hrs prior to a flight
- 2. Alcohol blood level must be below 0.04%
- 3. Do not use over the counter meds if it makes you drowsy
- 4. Prescriptions: Consult your AME

Special Emphasis Areas: Examiners shall place special emphasis upon areas of aircraft operations considered critical to flight safety. Among these are:

 Positive Aircraft Control Positive exchange of flight 	10. CFIT (Controlled Flight into
controls 3. Stall/spin awareness 4. Collision avoidance 5. Wake turbulence avoidance 6. LAHSO 7. Runway incursion avoidance 8. CFIT (Controlled Flight into	Terrain) 11. ADM and Risk Mgmt 12. Wire strike avoidance 13. Checklist usage 14. TFR's (temporary flight restrictions) 15. Special use airspace
Terrain) 9. SRM (Single Pilot Resource Mgmt)	16. Aviation Security