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| <p>Weather Minimums</p> <p>5 Exceptions to the 3-152 Rule</p> <ol style="list-style-type: none"> 1. Class B: 3mi Visibility, 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) | <p>Aircraft Documents to be Legal</p> <p>A - Airworthiness Certificate R - Registration Certificate O - Operating Handbook W - Weight & Balance Data</p> |
| <p>Daylight Visual Illusions (AIM 8-1-5)</p> <ol style="list-style-type: none"> 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 | <p>Aircraft Inspections to be Legal</p> <p>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) T - Transponder every 24 calendar months. (91.413) E - ELT: Every 12 cal months or ½ battery life (91.207)</p> |
| <p>Night Visual Illusions (AIM 8-1-5)</p> <ol style="list-style-type: none"> 1. Horizon. Stars may look like lights on the ground 2. Looking straight at a light, and it begins to move (Auto Kinesis) | <p>Pilot Documents to be Legal</p> <ol style="list-style-type: none"> 1. Pilot Certificate 2. Medical 3. Govt Issued Photo ID. |
| <p>Pilotage: Land Mark to Land Mark Flying</p> <p>Dead Reckoning: Using NAVAIDs , wind correction, time, etc (instruments and cross country planning calculations)</p> | <p>Pilot Currency to be Legal</p> <ol style="list-style-type: none"> 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 |

What are the scuba diving times? 12hrs shallow dive, 24hrs deep dive.

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|---|---|------|------------|--------------|--------------------------|------------------|-----------|--------------------|------------------|---------------------|-----|----------|--------------|
| <p>Medical Requirements (61.23)</p> <p>1st Class: (Airline Transport Pilot) - <40yrs 12 calendar months - >= 40 yrs 6 calendar months</p> <p>2nd Class: (Commercial) - 12 calendar months</p> <hr/> <p>3rd Class: Not Authorized for Commercial Ops - <40yrs 60 calendar months - >= 40 yrs 24 calendar months</p> <p>Basic Med not authorized for Commercial Ops</p> | <p>Carbon Monoxide Poisoning (AIM 8-1-4)</p> <ol style="list-style-type: none"> 1. Most likely from the exhaust having a leak. 2. Headache 3. Blurred vision 4. Dizziness 5. Drowsiness <p>Corrective action: Turn off heater, open fresh air vents, side windows, oxygen if available.</p> | | | | | | | | | | | | |
| <p>Supplemental Oxygen (91.211)</p> <p>>12,500 -14kft and >30 minutes at that level - Flight Crew requires oxygen</p> <p>>14kft: Flight Crew requires oxygen</p> <p>>15kft: Passengers must be offered oxygen</p> | <p>Lost Procedure (5 C's)</p> <ol style="list-style-type: none"> 1. <u>Confess</u> to yourself that you are lost 2. <u>Climb</u> to minimum safe altitude 3. <u>Conserve</u> fuel (slow down) 4. <u>Communicate</u> to controlling agency. Start with FSS. 5. <u>Comply</u> with instructions (fuel permitting) | | | | | | | | | | | | |
| <p>Hypoxia Symptoms (Lack of Oxygen) (AIM 8-1-4)</p> <ol style="list-style-type: none"> 1. Headache 2. Euphoria 3. Visual Impairment 4. Drowsiness 5. Lightheaded <p>Note: These are the same as hyperventilation</p> | <p>Minimum Equipment List (MEL) VFR Flight Day (Tomato Flames) 91.205</p> <table border="1" data-bbox="829 1290 1437 1537"> <tbody> <tr> <td>Tach</td> <td>Fuel Gauge</td> </tr> <tr> <td>Oil Pressure</td> <td>Landing indicator lights</td> </tr> <tr> <td>Altitude complex</td> <td>Altimeter</td> </tr> <tr> <td>Airspeed Indicator</td> <td>Magnetic compass</td> </tr> <tr> <td>Temp Gauge (liquid)</td> <td>ELT</td> </tr> <tr> <td>Oil temp</td> <td>Safety Belts</td> </tr> </tbody> </table> | Tach | Fuel Gauge | Oil Pressure | Landing indicator lights | Altitude complex | Altimeter | Airspeed Indicator | Magnetic compass | Temp Gauge (liquid) | ELT | Oil temp | Safety Belts |
| Tach | Fuel Gauge | | | | | | | | | | | | |
| Oil Pressure | Landing indicator lights | | | | | | | | | | | | |
| Altitude complex | Altimeter | | | | | | | | | | | | |
| Airspeed Indicator | Magnetic compass | | | | | | | | | | | | |
| Temp Gauge (liquid) | ELT | | | | | | | | | | | | |
| Oil temp | Safety Belts | | | | | | | | | | | | |
| <p>Safe to Fly? IMSAFE (AIM 8-1-1)</p> <p>Illness</p> <p>Medicine</p> <p>Tress</p> <p>Alcohol</p> <p>Fatigue</p> | <p>Minimum Equipment List (MEL) VFR Flight Night (FLAPS)</p> <p>Flares</p> <p>Landing light if for hire</p> <p>Anti collision lights (day also if plane is '96 or newer)</p> | | | | | | | | | | | | |

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| <u>E</u> ating | <u>P</u> osition Lights <u>S</u> ource of Energy |
| <p><u>4 Types of MEL's</u></p> <ol style="list-style-type: none"> 1. 91.205 (<i>Tomato Flames</i>) 2. <i>POH Min Equip List.</i> (<i>Cessna, Cirrus</i>) 3. <i>Airline MEL approved by FAA.</i> Must be accompanied by <i>FAA LOA</i>. 4. <i>Kinds of Operations (Day/Night VFR, Day/Night IFR)</i> | <p><u>Commercial Privileges and Limitations</u></p> <ol style="list-style-type: none"> 1. <i>Must have Instrument Rating for flights > 50NM.</i> 2. <i>May Carry Persons or Property for Hire subject common carriage vs Private carriage limitations.</i> |
| <p><u>PAVE Model</u></p> <ol style="list-style-type: none"> 1. <i>Pilot</i> 2. <i>Aircraft</i> 3. <i>Environment</i> 4. <i>External Pressures</i> | <p><u>Pilot Performed Preventive Maintenance (CFR 43-App A)</u></p> <ol style="list-style-type: none"> 1. <i>Must be Private/Sport Pilot or better.</i> 2. <i>Must be aircraft logbook entry with work completed, name, signature, type of cert and #, date.</i> 3. <i>Aircraft cannot be operated under Part 121, 129, 135 Ops.</i> |

You will be required to fill out a cross country plan like you did for Private Pilot. Two gotchas to be aware of:

1. Make sure to be able to read both the coded and non-coded METARs and TAFs off the weather reports for your departure and destination airports for the day of your test so that you know the abbreviations being used that day.
2. Make sure to have all landing and takeoff distances calculated from the POH performance data/curves and compared to actual

runway lengths for all of your cross-country plan departure and destination airports.

Temp Disqualifications of Medical:

Use the IMSAFE model. Also Aim 8-1-1.

From AC 68-1

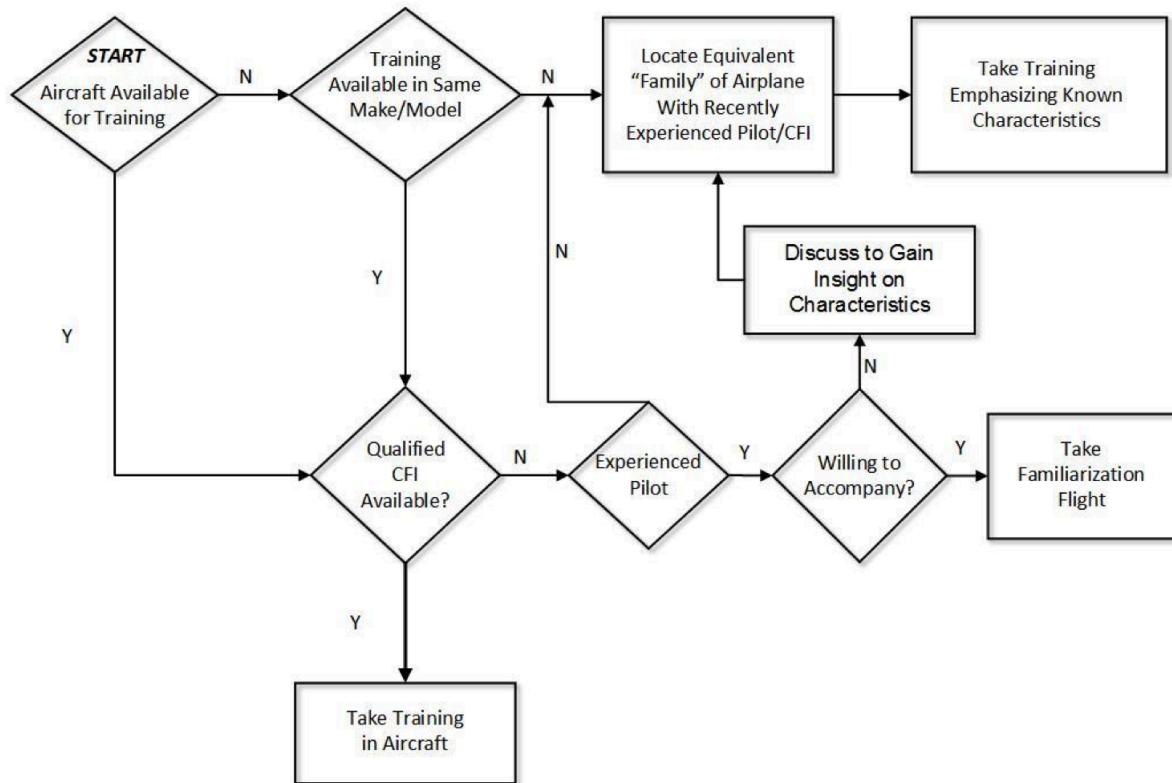
3.2 What Are My BasicMed Privileges? You can conduct any operation that you would otherwise be able to conduct using your pilot certificate and a third-class medical certificate, except you are limited to:

1. Fly with no more than five passengers.
2. Fly an aircraft under 6,000 lbs maximum certificated takeoff weight.
3. Fly an aircraft that is authorized to carry no more than 6 occupants.
4. Flights within the United States, at an indicated airspeed of 250 knots or less, and at an altitude at or below 18,000 feet mean sea level (MSL).
5. You may not fly for compensation or hire.

Flying Unfamiliar Airplanes:

See AC No: 90-109A. In Summary: High Performance and Complex Airplanes require an endorsement after training.

FIGURE 1. RECOMMENDED AIRPLANE TRANSITION TRAINING APPROACH



SAIB Definition: A Special Airworthiness Information Bulletin (SAIB) is an information tool that alerts, educates, and makes recommendations to the aviation community. SAIBs contain non-regulatory information and guidance that does not meet the criteria for an Airworthiness Directive (AD).

Ferry Permit Purpose and Procedure:

The special flight permit is issued to allow the aircraft to be flown for the following purposes:

- Flying the aircraft to a base where repairs, alterations, or maintenance are to be performed, or to a point of storage.
- Delivering or exporting the aircraft.
- Production flight testing new production aircraft.
- Evacuating the aircraft from areas of impending danger.
- Conducting customer demonstration flights in new production aircraft that have satisfactorily completed production flight tests.
- To allow the operation of an overweight aircraft for flight beyond its normal range over water or land where adequate landing facilities or fuel is not available.

Before the permit is issued, an FAA inspector may personally inspect the aircraft, or require it to be inspected by an FAA certificated A&P mechanic or an appropriately certificated repair station, to determine its safety for the intended flight. The inspection must be recorded in the aircraft records.

Part 91, subpart K and certificate holders under part 119 must have an approved program for continuing flight authorization to be issued a ferry permit.

An operator seeking a special flight permit should contact their local Flight Standards District Office (FSDO) or Designated Airworthiness Representative (DAR) for the appropriate forms and guidance.

Preventative Mx:

Defined in CFR Part 43. Appendix A.

Who: Holder of a pilot certificate except sport pilot can do preventive mx and return to service

Mx Logbook Entry: Just like a mechanic except you sign with your name, type of certificate (comm, private pilot etc), and date work performed.

Ex: Description of work on this date, by John Doe, Private pilot
3777000, Signature

Partial list of Allowed:

1. Tire removal, installation, and repair
2. Shock absorber cords on landing gear
3. Servicing landing gear struts (adding air, oil)
4. Replacing safety wire, cotter keys
5. Service Wheel bearings.
6. Fabric patches
7. Replenishing oil, and hydraulic fluid
8. Repairing upholstery and other decorative inside furnishings
9. Replace safety belts, seats. Bulbs, reflectors, Cleaning spark plugs

See Appendix A for full list.

Flying with inop equipment

1. Must not be part of the MEL and

(3) The inoperative instruments and equipment are -

(ii) Deactivated and placarded “Inoperative.” If deactivation of the inoperative instrument or equipment involves maintenance, it must be accomplished and recorded in accordance with part 43 of this chapter; and

(4) A determination is made by a pilot, who is certificated and appropriately rated under part 61 of this chapter, or by a person, who is certificated and appropriately rated to perform maintenance on the aircraft, that the inoperative instrument or equipment does not constitute a hazard to the aircraft.

2. Must be fixed or removed at the next inspection

Ex: Common question on the oral exam. Is the spinner required on a Cessna 172? Answer is yes because it is a required piece of equipment in the POH required equipment list. Is the spinner required on a Piper Cherokee? No, Cherokee doesn't have a mfg's equipment list so we defer to 91.205 which doesn't have the spinner listed as a required piece of equipment.

Download the FRAT safety bulleting: FRAT → Flight Risk Assessment Tool

What are your Personal Weather Mins?

Ceiling?, Wind?, X-Wind?, Visibility?, Hours flown?,

Inflight Weather Resources:

XM Weather, ADSB Weather, ATC, Wireless accessed data.

Homework:

Plan a cross country from KSGS to Green Bay Wisconsin.

Include the standard nav chart plus:

Takeoff and landings distances for departing and arrival airports.

All radio calls into and out of Green bay assuming you are parking at one of the FBO's.

In the air, must start the xcountry path, calculate time let to destination and ETA once level. Then calculate fuel reserves. Once done, divert to alternative airport.

