

FLIGHT REVIEW

You will need to complete a Flight Review every 24 calendar months if you are to act as PIC in an airplane (Note: passing a checkride will count as a Flight Review and will reset the clock at zero). Review [FAR 61.56](#) for all of the Flight Review requirements. The FAA minimum training for a flight review is 1 hour of ground and 1 hour of flight with a certificated flight instructor, but it normally takes longer. The Certificated Flight Instructor who will be endorsing your Flight Review is *prohibited by law* to make that endorsement until you can demonstrate the skills and knowledge necessary to exercise the privileges of your certificate safely. By studying the following questions, you may be able to expedite the process, saving you time and money.

Free Online Resources:

[Airplane Flying Handbook](#)

[Pilots Handbook of Aeronautical Knowledge](#)

[Weight and Balance Handbook](#)

[Aeronautical Information Manual](#)

Preflight Homework

1. Plan a cross country from S30 (Lebanon) to KMFR (Medford). You can use pilotage, dead reckoning, GPS, and /or radio nav. Be able to explain why you chose certain routes and altitudes.

2. Use the [Tecnam Sierra P2002 POH](#) to determine the following:

What is the maximum gross weight of the airplane? _____

How many gallons of fuel can the airplane hold/how much does it weight? _____ & _____

What is the maximum allowable weight of passengers and bags (Payload)? _____

What is the definition of maximum Maneuvering Speed?

How does gross weight affect the Maneuvering Speed?

Calculate a weight and balance under the following conditions:

- Front seats: 390 lbs
- Luggage: 75 lbs
- Fuel: 10 gallons per tank

Total gross wt. _____ C.G. _____ Total moment _____

3. As you burn fuel in this airplane, does the CG moves forward or aft?

4. What is the shortest runway we would go to under the following conditions:

- Pressure: 30.15
- Indicated Altitude: 4,000
- Temperature: 20 degrees Celsius
- Use the weight calculated from question #2

Our density altitude is: _____

Shortest runway: _____

5. What will our initial climb rate be after takeoff with these conditions:

_____ fpm

6. V – Speeds

- What is the definition of each
- Why is it important
- What are the particular speeds for this airplane?
- How are these speeds marked on the ASI?

Vx_____

Vy_____

Vs0_____

Vs1_____

Vne_____

Vno_____

Vfe_____

Va_____

Best glide_____

Ground

1. (61.3) The personal documents which must be in your possession as PIC are:
2. (91.9, 91.203) Aircraft paperwork required to be on board (AROW):
3. (91.403) Who is responsible to see that the aircraft is maintained in an airworthy condition?
4. (91.409) What inspections are required for our aircraft?
5. (91.205) What equipment is required for day vfr in our aircraft?
6. What is the required action if equipment on board is inoperable?
7. (61.56, 61.57) What must a pilot do to stay legally current?
8. (61.23) How long is your medical certificate valid?

Weather

1. Is frost hazardous to flight? Why?
2. What 3 factors must be present for a thunderstorm to develop?
3. What conditions must be present for fog to form? What times of day is this most likely to occur?
4. Upon returning to Lebanon you find the valley fogged in. Where might you go to find vfr conditions? How could you get assistance?
5. Wind Shear: What is it? Where is it encountered? How would you fly differently?
6. What weather information is available on the ground? In flight?
7. What are airmets and sigmets? What are some common airmets issued for this area?
8. How do we give and receive pilot reports?

Aerodynamics

1. What is load factor? What actions / conditions increase it?
2. How does turning flight influence stall speed and why?
3. What happens when the airplane is uncoordinated during a stall? Name a scenario where this could happen. How would you recover?
4. What conditions / factors influence takeoff and landing distances?
5. What are the dangers of flying the aircraft beyond the forward and rearward limits of balance?
6. What is ground effect?

Airspace and chart review

1. We will discuss the airspace near the Lebanon airport as well as the Seattle Class B area and Portland Class C area.
2. You should know what weather minimums, equipment, and communication requirements pertain to class A,B,C,D,E, and G airspace
3. What is a special vfr clearance? When would you need one? Can you get one at night?
4. What is a TFR? Are there any near our area? What is the best way to avoid violating one?
5. Why is it important to have a current Chart Supplement (used to be called AFD) in addition to current sectional charts?

FAR Part 91 review

1. (91.17) How do we know if a medication is disqualifying for flight?
2. (91.103) What are the required preflight actions for a flight out of the area?
3. (91.111) Is formation flight allowed? If so, under what conditions?
4. (91.107) What are the seat belt requirements?
5. (91.113) What aircraft categories have right of way over others? (BGAAR)
6. (91.113) How do you resolve the following conflicts: Head on? Converging? Overtaking?
7. (91.119) What is the minimum altitude over congested? Uncongested?
8. (91.123) Must we always comply with ATC instructions? If we don't what must we do?
9. (91.125) If we needed to land at Salem without a Com radio could we? How would we do it?
10. (91.129) What are the rules for using a VASI?
11. (91.159) Discuss vfr cruising altitudes.
12. (91.151) What are the day / night vfr fuel requirements? What are your own personal minimums?
13. When can a flight be logged as cross country?
14. When do pilots need oxygen? How about passengers?
15. Discuss everything you know about alcohol as it pertains to flying an airplane.

Night Flight

1. (91.209) What are aircraft position lights? When must they be on?
2. What must be done to be current to fly with passengers at night?
3. What color is the rotating airport beacon? Do all airports have one? What if it is on during daylight hours?
4. How do I determine the hours of operation at a tower controlled airport? How would the flight be conducted after the tower closes?
5. What additional equipment should be on board for a night flight? How is our preparation different than during the day?
6. How is scanning for traffic at night different than during the day?
7. How long do our eyes take to fully adapt to night vision?
8. How does vertigo / spatial disorientation factor into night flight and what can we do about it?
9. What does a "halo" effect around lights at night indicate to us?

Airport Operations

1. (91.1260 & 91.127) What is the standard traffic pattern direction? How do we know for each airport? How do we determine pattern altitude?
2. Describe a strange airport arrival when wind and runway are unknown.
3. What is wake turbulence and how can we avoid it?
4. What can you expect a taxi clearance to contain?
5. Review airport signage, markings, and lighting.
6. What is a LAHSO (land and hold short operations)? Must you accept one? Where might you receive one and how do you know if you can comply?
7. What are airport light gun signals?

Aircraft Engine, Equipment, and Systems:

1. What color is 100LL Avgas? Mogas?
2. During flight you notice that engine oil temperature is high but below redline. What would you do?
3. Can the engine start when the magneto switch is off? If so, how and why?
4. Why is it critical to have all radio equipment turned off prior to start?
5. During the flight you notice the amp gauge is showing a discharge. What would you do?
6. While airborne you notice a circuit breaker has “popped”. What does this mean and what action would you take?
7. What would you do if you encountered an aircraft fire in flight?

Medical Factors

1. Scenario: We are flying today at 5,000 feet and we both notice we aren't feeling well. What is the likely cause? How long will we be affected? What should we do?
2. What precautions would you take when flying after scuba diving?
3. Stress causes hyperventilation. What are the symptoms and cures?
4. List the 5 hazardous attitudes. Which one are you on guard against?
5. Review the IMSAFE personal checklist.

Additional questions for pilots with an Instrument Rating

1. When can you descend below the MDA or the DH?
2. The ILS approach you are planning to fly has visibility minimums of ½ miles and ceiling requirements of 200 feet. Current weather at the airport is showing a visibility of ½ miles and a ceiling of 100 feet. Can you start the approach? Alternatively, what if reported visibility drops below ½ miles and the ceiling rises to 200 feet. Can you start the approach?
3. Define MOCA/OROCA/MRA and why they are important.
4. Brief [this approach plate](#).
5. When are you required to file an alternate?

Additional questions for pilots with a Commercial Pilot License

1. What services may a Commercial Pilot provide without a Part 135 or Part 121 Air Carrier Certificate?
2. What is a MEL?
3. Your co-worker introduces you to a man named John who wants to pay you to fly him and his wife to Southern California for the weekend. He asks you to rent an airplane, and he will pay for that too. Can you legally do this? What if John owns an airplane and offers to pay you to fly him and his wife down in that?
4. You are flying with a captain who you like and admire. He wants to please passengers, so he rushes through weight and balance calculations. Once in cruise, you review his calculations and find that the airplane departed over max gross weight. What do you do?
5. Explain how a constant speed propeller works.

The flight portion of the Flight Review might look like this:

1. Preflight aircraft
2. Taxi and aircraft flight controls
3. Checklists and run up
4. Short field takeoff
5. Initiate first part of cross country. Include a ground speed check
6. Practice diversion / lost procedures
7. Track / intercept a course using radio nav
8. Basic attitude instrument flight (hood)
9. Recovery from unusual attitudes
10. MCA (slow flight) clean and dirty
11. Approach and departure stalls
12. Steep turns
13. Simulated power failure
14. At least one landing at Salem.
15. Short field landing
16. Soft field takeoff and landing.