

Aircraft Systems – Part 2

Required Maintenance and Inspection

1. Can a pilot perform preventive maintenance on an aircraft (vs. a licensed A&P mechanic or AMT)? If so, what are the general requirements that pilot has to meet in order to perform preventive maintenance? Give some examples of preventive maintenance.
2. If you are the owner / operator of an aircraft and receive an airworthiness directive (AD) regarding your aircraft, what, if anything, do you need to do related to that AD?
3. Are you required to have an Emergency Locator Transmitter (ELT) installed in your aircraft? If so, when do you need to replace the battery? How often does it need to be inspected?
4. Regarding you, as pilot in command (PIC) –
 - a. You are performing a routine **preflight inspection** and identify an issue that you believe may render the aircraft *not* airworthy. Who has the responsibility for making the determination that the aircraft is not airworthy and discontinuing the flight?
 - b. **After** a flight has been completed, you note a condition that may affect the airworthiness of the aircraft. Who is responsible for correcting that problem?
5. You are performing a routine preflight inspection on an aircraft you are renting. It is September 16, 2020. You note that the last annual inspection was done on that aircraft on September 7, 2019. Can you fly that aircraft or do you have to get an annual inspection before further flights can be made?
6. In general, what is the purpose of a Minimum Equipment List (MEL)?
7. Your aircraft has undergone replacement of a damaged propeller with a different model (albeit one that is approved for use on your aircraft) that your A&P mechanic tells you meets the FAA definition of an alteration that ‘substantially affects the aircraft’s operation’.
 - a. Who can test fly the aircraft and approve the aircraft for flight?
 - b. How long (in flight hours) do you have to fly passengers in this aircraft before this approval process is performed?
8. Regarding aircraft lighting –
 - a. You and a friend are making a daytime pleasure flight to visit friends and note that the position lights (navigation lights) are not operating. Can you make the flight? If so, what action do you need to take, if any?
 - b. Later that day you find that the reason your position lights are not working is because the fuse is blown. You swap the fuse with the one used for the landing light (so, position lights now work but **not the landing light**). You and your friend are returning home and you expect to arrive at your home airport about 45 minutes after sunset. Can you make the flight? If so, what action do you need to take, if any?
9. What, if any, aircraft equipment needs to be inspected **only** every 24 months?
10. You are flying short hops – five in all counting the return to your home airport at the end of the day. You do a complete pre-flight inspection of your aircraft before departing your home airport on your first hop. You note no issues or abnormalities on the remainder of the flights and spend about an hour on the ground at each stop. Do you have to do a pre-flight inspection between hops?