

# Accident Prevention Program

## MEET YOUR AIRCRAFT

### Purpose

This quiz is designed to aid a pilot in understanding the aircraft he flies. Although no attempt is made to cover in depth all information contained In the typical Owner's Manual, this booklet will provide a review of the basic information a pilot should know before taking off on a crosscountry flight. Since the questions are designed to be answered in an open book fashion, no minimum passing score is set, although it is assumed that a pilot holding at least a private license would score high. It is suggested that, in addition to the review provided by this booklet, a thorough, periodic review be made of the Owner's Manual.

### Instructions

Since this is an open book test, you may use any book which will provide you with a correct answer. The Owner's Manual for the aircraft you plan to use is required, and the Airman's Information Manual is suggested. All answers concerning aircraft performance and limitations should be obtained from the Owner's Manual for the aircraft you plan to fly. If you find a question not applicable to this aircraft, simply omit it. If you are unable to locate the answer to a given question, we suggest you discuss it and any questions answered improperly with your flight Instructor.

Name \_\_\_\_\_

Date \_\_\_\_\_

Airman's

Make \_\_\_\_\_ Model \_\_\_\_\_  
certificate \_\_\_\_\_

Medical certificate

Ratings \_\_\_\_\_ type-expiration  
date \_\_\_\_\_

Time in

Total time \_\_\_\_\_ Last 90 days \_\_\_\_\_ make &  
model \_\_\_\_\_

Date of latest biannual flight review \_\_\_\_\_

1. What is the normal climbout speed? \_\_\_\_\_

2. What is the best rate of climb speed? \_\_\_\_\_

3. What is the best angle of climb speed? \_\_\_\_\_

4. What is the maximum flap-down speed? \_\_\_\_\_

5. What is the maximum gear-down speed?\_\_\_\_\_
6. What is the stall speed in a normal landing configuration?\_\_\_\_\_
7. What is the clean-stall speed?\_\_\_\_\_
8. What is the approach-to-landing speed?\_\_\_\_\_
9. What is the maneuvering speed?\_\_\_\_\_
10. What is the red-line speed?\_\_\_\_\_
11. What engine off glide speed will give you the maximum range?\_\_\_\_\_
12. (Multi-engine only) What is the VMC?\_\_\_\_\_
13. What is the make and horsepower of the engine(s)?\_\_\_\_\_ Hp.
14. What is the estimated TAS at 5,000 ft. and 65% power?\_\_\_\_\_
15. What RPM or combination of RPM and Manifold Pressure yields 65% power at 5000' MSL?\_\_\_\_\_ RPM & \_\_\_\_\_ MP
16. How many gallons of fuel are used per hour at 65% power at 5000' MSL?\_\_\_\_\_
17. How many Usable gallons of fuel can you carry?\_\_\_\_\_
18. Where are the fuel tanks located, and what are their capacities?
- |                   |       |         |       |
|-------------------|-------|---------|-------|
| Main tank         | _____ | gallons | _____ |
| Left tank         | _____ | gallons | _____ |
| Right tank        | _____ | gallons | _____ |
| Rear tank         | _____ | gallons | _____ |
| Auxiliary tank #1 | _____ | gallons | _____ |
| Auxiliary tank #2 | _____ | gallons | _____ |
19. (Multi-engine only) In the event an engine fails, can all on-board fuel be fed to the running engine?\_\_\_\_\_ If yes, explain how:
- \_\_\_\_\_

20. With full fuel load at 65% power, at 5,000 ft., allowing a 45 minute

reserve, what is the maximum duration (In hours)?\_\_\_\_\_

21. What speed will glve you the best glide ratio?\_\_\_\_\_

22. What is the octane rating of the fuel used by thls aircraft?\_\_\_\_\_

23. How do you drain the fuel sumps?\_\_\_\_\_

24. What weight of oil is being used?\_\_\_\_\_

25. Is the landing gear fixed, manual, hydraulic, or electric?\_\_\_\_\_

If retractable, what is the back-up system for lowering the gear?

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26. What is the maximum allowable crosswind component for the aircraft?

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27. How many people will this aircraft carry safely with a full fuel load?

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28. What is the maximum allowable weight the aircraft can carry in the baggage compartment(s)?

Rear\_\_\_\_\_lbs.

Front \_\_\_\_\_lbs.

Belly\_\_\_\_\_lbs.

Left engine nacelle\_\_\_\_\_lbs.

Right engine nacelle\_\_\_\_\_lbs.

Total\_\_\_\_\_lbs.

29. What take-off distance is requled to clear a 50 ft. obstacle at maximum gross weight at a pressure altitude of 5,000 ft. and 15

degrees (F)? (Assume no wind and a hard surface runway.)\_\_\_\_\_ft.

30. What would the answer to number 29 be if the take-off were made

from a sea level pressure altitude?\_\_\_\_\_ft.

31. Would high humidity increase or decrease this distance?\_\_\_\_\_

32. How do you find pressure altitude?\_\_\_\_\_

33. What is your maximum allowable useful load? (Check the weight and balance data in the aircraft, not the Owner's Manual.)\_\_\_\_\_Ibs.

34. Solve the weight and balance problem for the flight you plan to make.

If you plan to fly solo, solve for a 170 Ib. passenger In each seat.

Does your load fall within the weight and balance envelope?\_\_\_\_\_

What is your gross weight?\_\_\_\_\_Ibs. If you solved the problem

contemplating 170 Ib. passengers in each seat, how much fuel could

you carry?\_\_\_\_\_

Where?\_\_\_\_\_

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If you carry full fuel how much baggage could you carry?\_\_\_\_\_Ibs.

Where?\_\_\_\_\_

35. Where can you find an FSS phone number?\_\_\_\_\_

36. List two frsqencies you can use to contact the FSS:  
Transmit                      Receive

1. \_\_\_\_\_

2. \_\_\_\_\_

37. What is the emergency frequency?\_\_\_\_\_

38. To operate a fixed wing aircraft in a Group1 TCA, the aircraft must have the following equipment:

1. \_\_\_\_\_

2. An operable two-way radio capable of communicating with the

appropriate ATC  
facility. \_\_\_\_\_

3. An operable coded radar beacon transponder having automatic  
pressure

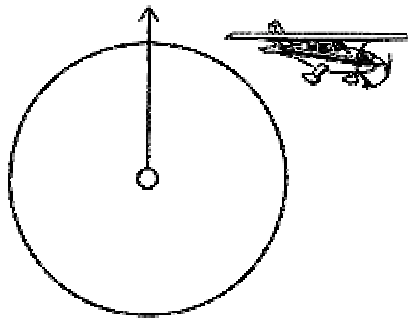
altitude reporting  
capability. \_\_\_\_\_

39. What are the minimum FAR requirements for a pilot to legally carry  
passengers? \_\_\_\_\_

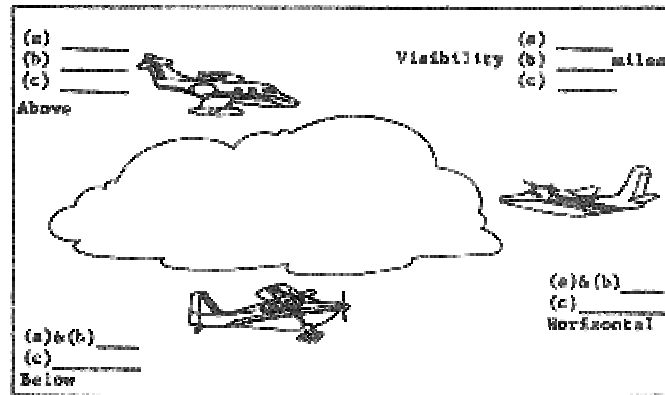
40. What is the present ceiling and surface wind at YTR?  
YTR SA2200 50SCT 100BKN 250BKN 12 128123116123041991

41. On the weather sequence reports the wind speed is given in knots;  
how is visibility measured, in nautical miles or statute miles?

42. Assuming the aircraft shown below is tuned to the VOR pictured and  
the VOR receiver OBS is set on 45 degrees, is the To-From read-out  
reading To or From? \_\_\_\_\_



43. Fill in the blanks below, indicating cloud clearances and  
visibillty  
required by the Federal Air Regulations (a) within and  
(b) outside controlled airspace, and (c) more than 1200 ft. above  
the surface and over 10,000 MSL.



Use the drawing below for the next two questions.



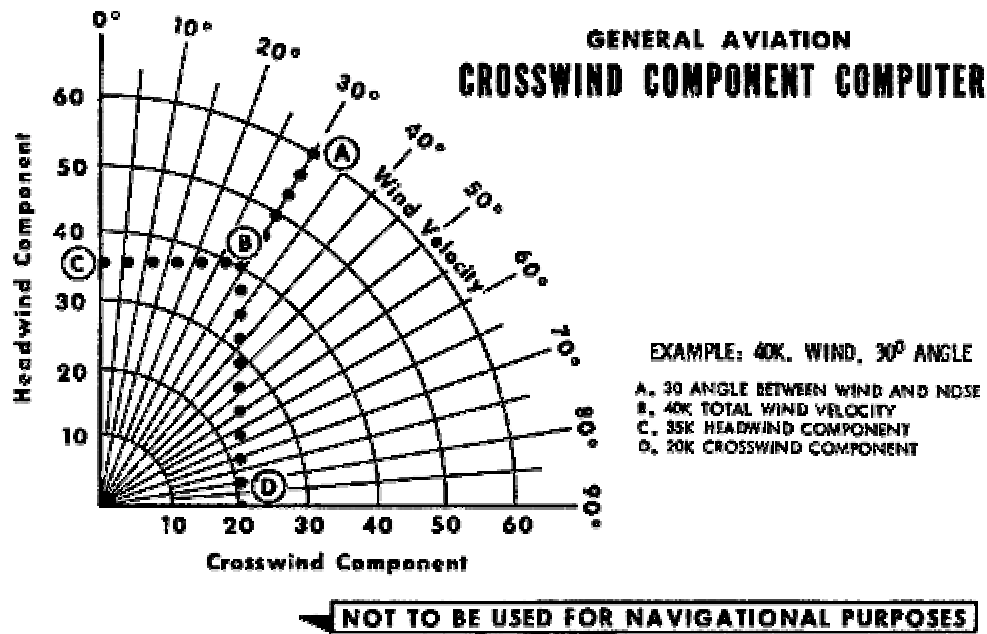
44. If you must take off following a departing jet transport on the same

runway, in what area should you plan your lift off?

Area A, B, or C? \_\_\_\_\_

45. If you must land behind a landing jet transport, where should you

aim for touchdown? Area A, B, or C? \_\_\_\_\_



Standardization

+

Attitude

+

Familiarity

+

Experience

+

Technique

+

YOU

*...makes it  
all add up in your  
favor!*

(END OF DOCUMENT FAA-P-8740-29 AFO-800-0680)