

Terence Russell
CFIIAM, Gold Seal, ATP-s

N771TR@aol.com
www.Iworldaero.com

Mobile: 240-481-4023
Home: 301-495-9185

PRE-CROSS COUNTRY TEST

Client Name _____ Date _____ Completion Success _____

SHORTS AND SOFTS

1. Describe short field take off procedure.
2. Describe the short field landing procedure.
3. Describe the soft field take off procedure.
4. Describe the soft field landing procedure.

PERFORMANCE

1. Define absolute altitude
2. Define true altitude
3. Define pressure altitude
4. What happens to your altimeter if you fly from
 - a. Higher pressure to lower pressure?
 - b. Lower pressure to higher pressure?
5. Why does TAS increase with altitude?

6. How is fuel flow affected by altitude?
7. What is the general relationship between altitude and speeds of the winds aloft?
8. Describe how to choose a cruise altitude based on your mag course when VFR.
9. Describe procedures for departing behind a large aircraft that has just:
 - a. Departed
 - b. Landed
10. Describe procedures for arriving behind a large aircraft that has just:
 - a. Departed
 - b. Landed
11. At a pressure altitude of 6000, at standard temperature, at 70% power:
 - a. State the fuel flow
 - b. State the TAS
 - c. State the power setting.
12. If

TAS	=	115kts
Winds Aloft	=	330 degrees @ 25kts
True course	=	25 degrees
Variation	=	11 West

 Then

Ground Speed	=	
WCA	=	
Mag Course	=	
Mag Heading	=	

13. Is Winds Aloft information provided in True or Magnetic?
14. Is tower wind check, AWOS, and ATIS information provided in true or magnetic?
15. How much fuel, time, and distance covered is needed to climb from a field at 500 foot pressure altitude to 4500 foot pressure altitude?
16. Calculate and attach a weight and balance for N771TR for the following conditions:
- | | | |
|-----------------------|---|---------|
| Pilot | = | 165 lbs |
| Copilot | = | 125 lbs |
| Rear passenger | = | 180 |
| Bags on rear Seats | = | 15 lbs |
| Cargo in baggage area | = | 40 lbs |
| Full fuel and oil | | |
17. Describe the purpose of the following check points
- Top Of Climb
 - On Course Point
 - Enroute point
 - Prep Point
 - Descent Point
18. What land marks make good visual check points, which make bad land marks?
19. When should the TOC be placed over the departure, requiring a climb in the airport vicinity before departing on course?

20. If your airplane is at 6500 ft MSL, preparing to land at KABC, which is at 500 ft MSL, how far away should you place the descent point if your ground speed is 120 kts and you are planning a 500 FPM descent to 1500 ft MSL?

21. What is the difference between arriving at a towered vs non towered airport? How is a towered approach pattern different from a non-towered approach pattern?

22. What pilot actions should be taken if arriving:
 - a. On a 45 with traffic turning downwind?
 - b. On extended downwind with traffic on a wide base?
 - c. On extended downwind with traffic on an extended downwind to base?
 - d. Extended downwind with traffic on long final?

23. Define LAHSO procedures.

24. What is ALD, where can you obtain that information?

25. Can you refuse LAHSO instructions?

26. Can student pilots accept LAHSO instructions?

27. Can you go around in the event of a botched approach?

28. What do the following light gun signals mean?

In the air

On the ground

- a. Flashing Red
 - b. Steady red
 - c. Flashing Green
 - d. Steady Green
 - e. Flashing White
 - f. Alternating Red and Green
29. Describe lost procedures
- a. When VOR equipped

 - b. With no nav aids available
30. What steps should be followed to execute a diversion
31. What happens to ground visibility as,
- a. A pilot climbs to higher altitudes when haze exists?

 - b. Cross a bay or body of water when haze exists?

KLN 89B GPS

- 1. Describe how to program the KLN 89B flight plan.

- 2. Describe how to perform a direct to operation.

3. Does the KLN 89B show inner airspace rings for class B or C airspace?
4. Does a KLN 89B depict class D airspace boundaries?

WEATHER

1. What are the three stages of a thunderstorm?
2. Which flight hazards are associated with these stages
3. When can you expect windshear:
 - a. Aloft?
 - b. On the surface?
4. What is the approximate base of the clouds if field elevation is 1500 ft MSL, the temperature is 30 celsius, and the dewpoint is 25 celsius?
5. What is:
 - a. Advection fog?
 - b. Upslope fog?
 - c. Precipitation fog?
 - d. Steam fog?
 - e. Radiation fog?

6. What are TAFs? How often are they issued? How long are they valid?
7. What are FAs? How often are they issued? How long are they valid?
8. What is HIWAS and where can you find it?
9. What is a CWA, and where can you get it?
10. What are Metars, who issues them, and how often?
11. What are Pireps? Describe the strengths and weaknesses of using Pirep info
12. What is the difference between the following frequencies? (Hint, look on a VOR box on your map) What are their functions?
 - a. 122.0
 - b. 122.2
 - c. 122.1R
13. How do you establish contact with a Flight Service Station via a remote control outlet?
14. What are Airmets?
15. What is the hazard corresponding to Airmet:
 - a. Tango
 - b. Sierra
 - c. Zulu
16. What is a Sigmet? When is it issued?

17. What is a Convective Sigmet? When is it issued?

AIRSPACE

1. Describe arrival procedures at a:

a. Class D airport.

b. Class C airport.

c. Class B airport

2. Describe departure procedures at a:

a. Class D airport

b. Class C airport

c. Class B airport

3. Describe transition procedures over a:

a. Class D airport

b. Class C airport

c. Class B airport

4. Compare and contrast an MOA vs a Restricted Area, vs a Prohibited area

5. When attempting to enter Class B airspace what do the following ATC transmissions imply?
 - a. “771TR, you are radar contact 30 north of the JFK VOR.”
 - b. “1TR, you are radar contact 5 north of Gaithersburg, proceed on course to Easton.”
 - c. “1TR, you are radar contact 5 north of Easton, you are cleared as requested to Gaithersburg via the Fort Meade transition at 3500.”
 - d. “771TR you are cleared into the Class Bravo. Proceed on Course.”
 - e. “Tobago TR, you are cleared into the ADIZ, remain clear of the Class Bravo. Proceed on course to Fort Meade.”

6. What do the following instructions mean, and what responsibilities do they imply to you?
 - a. “771TR, right vector [or (turn right)] 150 degrees.”
 - b. “Tobago 1TR, resume normal navigation/own navigation.”
 - c. “November 1TR, radar service terminated. Frequency change approved. Squawk 1200.”
 - d. “November 1TR, radar service terminated. Frequency change approved. Keep your code until you land.”

SECTIONAL AND TAC CHARTS

1. Using the index on the sectional chart find:
 - a. The ATC frequency while transitioning the Eastern Shore over Easton airport VFR at 3000 feet.
 - b. The times of operation and the altitude of R4006 on the Maryland Eastern Shore

2. Draw the symbol for
 - a. A tall flashing antenna.
 - b. A short flashing antenna.
 - c. A short unlit antenna.
 - d. A misc.point. ie: a golf course, prison, trailer park, hospital, factory, etc.
 - e. A public hard surface airport.
 - f. A private soft field.
 - g. A public soft field.
 - h. A public hard surface field with services.
 - i. An airport beacon.
 - j. Train tracks.
 - k. Small roadway.

- l. Major roadway.
 - m. Maximum elevation figure (what color is it).
 - n. Variation line (what color is it).
 - o. A concentrated population area (Color).
 - p. A small hamlet, township or agglomeration.
 - q. Restricted Area (color).
 - r. Prohibited Area (color).
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- 3. Why are ATC sector frequency boxes listed on a Sectional around class C airspace but not for Class B airspace?
 - 2. What does a white box around Class B airspace mean on a Sectional chart?
 - 5. What is the ceiling of the Martinsburg Class D?
 - 6. What is the ceiling of the Atlantic City class C
 - 7. What is the Class E ceiling and the shelf floor of the Potomac Class B over KFME?
 - 8. What is the difference between tower, CTAF, and Unicom frequency at a towered airport?
 - 9. What are those frequencies at Wilmington?

10. What is the Maximum Elevation Figure for?

ORAL EXAMINATION QUESTIONS

1. Decipher
 - a. TAF
 - b. FA
 - c. Winds Aloft
 - d. Significant WX chart
 - e. Prognostic Chart
 - f. WX Depiction Chart
 - g. Pirep

2. Identify Airport Signage

3. Translate
 - a. AFD entry at local field.
 - b. A different and Towered Airport.