

1. After reviewing the aircraft records, is everything in order for this flight?
  - A. No, you need an ELT inspection.
  - B. No, you need a pitot-static inspection.
  - C. No, you need a transponder inspection.
  - D. Yes, everything is in order.
  
- D. Everything is in order. Reference FARs 91.207, 91.409, 91.411 and 91.413.**
  
2. After reviewing your personal records, are you legal for this flight?
  - A. No, you need a new medical certificate and a biennial flight review.
  - B. No, you need a new medical certificate.
  - C. No, you need a biennial flight review.
  - D. Yes, you're good to go.
  
- B. Reference FAR 61.23. Your medical certificate was issued 2 days after your 40<sup>th</sup> birthday, meaning your medical certificate is only valid for 24 months. Because it has been less than 2 years since your instrument checkride, you do not need a biennial flight review yet.**
  
3. Reviewing the weather you just pulled off DUATS, what conditions do you expect for this afternoon's flight, assuming a departure time of 16:30 local time?
  - A. Marginal VFR conditions in mist.
  - B. Occasional scattered clouds at 10000 feet.
  - C. Isolated thunderstorms and rain.
  - D. IFR conditions.
  
- C. Reference supplemental data.**
  
4. Departing runway 17 at Dewitt-Spain, what will be your takeoff distance to clear a 50' obstacle?
  - A. 900 feet.
  - B. 1300 feet.
  - C. 1700 feet.
  - D. 2100 feet.
  
- C. Field elevation at M01 is 225 feet. With an altimeter setting at KAWM of 29.98, and a temperature of 33C, this yields a pressure altitude of 165 feet. Using the performance charts included in the supplemental data, this information yields a distance of approximately 1700 feet.**

5. Which of the following is true about Dewitt-Spain airport?

- A. Runway 17 has a right hand traffic pattern.
- B. The airport is attended from 8am to 4:30pm.
- C. The airport can be used for VFR operations only.
- D. The VASI for runway 17 has a 3 degree glide slope.

**A. Reference A/FD entry for Dewitt-Spain.**

6. If you start engines at 16:30 local, and it takes you 7 minutes to taxi out and run-up, what time should you tell George to be waiting for you in Blytheville?

- A. 16:56 local
- B. 17:03 local
- C. 22:56 UTC
- D. 23:03 UTC

**B. Reference calculations at end of packet.**

7. After taking off, you realize that climbing to your planned cruising altitude of 5500 feet will put you in the Memphis class B airspace. What frequency would you use to request clearance into the class B?

- A. 120.25
- B. 125.27
- C. 118.92
- D. 119.1

**D. Reference A/FD entry for Dewitt-Spain.**

8. Approximately 20 miles along your route, you look at the chart and realize that the Field of Dreams private airstrip is just off to your right side. What kind of airstrip is Field of Dreams?

- A. An open field with no defined runway.
- B. A private airstrip owned by the federal government.
- C. An ultralight strip.
- D. A forest service airstrip.

**C. Reference any sectional legend.**

9. Shortly after passing Field of Dreams, it's time to start your descent into Blytheville. What landmark will you be abeam when you start your descent?
- A. The town of Osceola.
  - B. Ohlendorf private airport.
  - C. The town of Burdette.
  - D. The town of Luxora.
- D. Referencing calculations at end of packet, the distance covered in the descent is 12.9 nautical miles. Measuring 12.9 nautical miles back from KBYH puts you abeam the town of Luxora.**
10. Since you took off from Dewitt-Spain at 16:37 local, can you still expect the airport at Blytheville to be attended when you arrive?
- A. Yes
  - B. No
- B. Reference A/FD entry for Blytheville and supplemental data. The airport is attended Monday-Friday from 1400-2300z (0900-1800 local.) You will be arriving prior to 1800 local (reference calculations at end of packet,) but since you are flying on a Saturday, the airport is unattended.**
11. Considering the width of the runway in Blytheville, what illusion do you need to be cautious of while landing?
- A. The illusion on final that you are lower than you actually are, potentially resulting in flaring too high causing a hard landing or overshoot.
  - B. The illusion on final that you are higher than you actually are, potentially resulting in a dangerously low approach.
  - C. A loss of depth perception making it difficult, if not impossible, to visually determine your glidepath.
  - D. None, all of the above illusions only occur at night, and you are landing during daylight hours.
- A. Reference AIM 8-1-5 3 b.**

12. After landing, shutting down and greeting George, you get ready for the next leg to Camden. Since you started at Dewitt-Spain with a full 48 gallons usable fuel, you decide not to get gas. Once George gets on board, what will be your weight and center of gravity?
- A. Weight 2289 pounds, C.G. 89.58 inches.
  - B. Weight 2289 pounds, C.G. 89.52 inches.
  - C. Weight 2264 pounds, C.G. 89.52 inches.
  - D. Weight 2264 pounds, C.G. 89.58 inches.

**C. Reference calculations at end of packet.**

13. You're planning on flying to Camden at 7500 feet, but there are broken clouds overhead at 4500 feet. If you try to pick your way through the clouds, how far away from the clouds will you have to stay to avoid a violation?
- A. No specific distance, just remain clear of clouds.
  - B. 1000 feet above, 1000 feet below and 1 mile horizontally.
  - C. 3 statute miles.
  - D. 500 feet below, 1000 feet above and 2000 feet horizontally.

**D. Reference FAR 91.155.**

14. Looking at your watch, you realize it's taking longer than you had planned to get back airborne out of Blytheville, and you need to call ahead to the catfish restaurant in Camden to hold your dinner reservations. If you manage to start engines at 23:00 UTC, and it takes 10 minutes to taxi and run-up, when will you be arriving at the Camden airport, in local time? (Round your answer to the nearest minute.)

**19:03 or 7:03pm (+/- 3 minutes.) Reference calculations at end of packet.**

15. You're almost ready to go, but you want to file a flight plan for this leg of the trip. Unfortunately, there's nowhere for you to connect to the internet, and all the letters are rubbed off your cell phone. What phone number do you need to dial to reach flight service and file your flight plan.
- A. 1-800-238-7527
  - B. 1-800-992-7433
  - C. 1-800-358-7782
  - D. 1-800-745-6871

**B. The phone number for flight service is 1-800-WX-BRIEF. Reference any telephone keypad.**

16. Which of the following pieces of information are you required to include when filing your flight plan?

- A. The aircraft's color.
- B. The amount of fuel on board.
- C. Alternate airport.
- D. The airport where the aircraft is based.

**B. Reference FAR 91.153.**

17. After being put on hold for a few minutes, you finally get your flight plan filed. As you walk back out to the aircraft, you wonder if it was really worth the hassle. True or false, you're required to file a flight plan for this flight?

- A. True
- B. False

**A. Normally, there is no requirement to file a VFR flight plan, although it is recommended. However, in this case, your route of flight takes you through the outer ring of a presidential TFR. According to the wording of the TFR, transit flights through the outer ring may be approved by ATC on a workload permitting basis, however, such flights must be on a filed flight plan and be squawking a discrete transponder code. Reference supplemental data NOTAMs.**

18. What landmark will you see below as you reach the top of your climb?

- A. A small river.
- B. The Mississippi River.
- C. A divided highway.
- D. Railroad tracks.

**A. Using the climb performance chart provided in the supplemental data, it shows that at the given temperature and altimeter settings that it will take 23 nautical miles to climb to 7500 feet. Measuring 23 nautical miles from KBYH, it puts you over a small river just southwest of the Dyersburg airport.**

19. What is the significance of the dashed magenta line circling the Dyersburg airport?
- A. You are required to obtain an ATC clearance to pass through this area.
  - B. It marks the location of Class D airspace when a temporary tower is operating..
  - C. It marks an area where Class E airspace extends all the way to the surface.
  - D. It indicates an area of Class G airspace cut out of the surrounding Class E airspace..

**C. Reference sectional chart legend.**

20. Why does the area marked by the dashed magenta line mentioned in the previous question extend to the southwest of Dyersburg?
- A. To indicate the direction that aircraft are preferred to depart for noise abatement.
  - B. To provide uncontrolled airspace to allow aircraft landing to the northeast at Dyersburg to extend their downwind legs.
  - C. To indicate the width of airway V47.
  - D. To provide controlled airspace to contain standard instrument approach procedures without imposing a communications requirement on VFR traffic.

**D. Reference AIM 3-2-6 e 2.**

21. As you level off at your cruising altitude, you decide to go ahead and activate your flight plan. Which of the following would be the best way to do that?
- A. Contact Jackson radio on 122.45.
  - B. Contact Jackson radio on 121.5
  - C. Contact Jackson radio on 127.15
  - D. Contact Memphis center on 134.65

**C. Reference NOTAMs in supplemental data. The Jackson radio RCO frequencies 122.2, 122.45 and 121.5 at Dyersburg are out of service. While Memphis center may have the capability, their primary responsibility is IFR traffic, not VFR. Using an alternate frequency to reach Jackson radio is the best option. If you look at the Jackson RCO frequencies listed near McKellar VOR approximately 35 nautical miles to your southeast, you will see other communication frequencies which are not NOTAMed out of service.**

22. Shortly after activating your flight plan, you contact Memphis center and request VFR flight following. What services does VFR flight following provide?
- A. Safety alerts.
  - B. Traffic advisories.
  - C. Limited radar vectoring.
  - D. All of the above.

**D. Reference AIM 4-1-18 a 1.**

23. What do you expect to see out the right side of the airplane 30 minutes after taking off from Blytheville?
- A. The town of Brazil.
  - B. The town of Trenton.
  - C. Gibson County airport.
  - D. The town of Milan.

**B. Using the given data, it will take 16:15 and 23 nautical miles to reach your cruising altitude. Your cruise groundspeed is 107 knots. To go another 13:45 at 107 knots (30 minutes-16:15=13:45,) takes you a further 24.5 nautical miles, which places you abeam the town of Trenton. Reference calculations at end of packet.**

24. As you pass abeam the Gibson County airport, Erika notices your old ADF, and starts asking questions about it. To demonstrate, you turn it on and tune in the Gibson NDB. What will the ADF do?
- A. Nothing, Gibson NDB is deactivated.
  - B. The needle will point to the right, directly at the station.
  - C. The needle will point to the left, away from the station.
  - D. The needle will point behind the aircraft.

**A. Reference sectional legend.**

25. Which is true about the military training routes that you cross just northeast of the town of Milan?
- A. The VFR routes are above 1500 feet AGL.
  - B. The IFR routes are below 1500 feet AGL.
  - C. The VFR routes are below 1500 feet AGL.
  - D. All of the routes are inactive on the weekend.

**C. Reference AIM 3-5-2.**

- 26 What landmark will mark the top of your descent into Camden?
- A. Railroad tracks near the town of Trezevant.
  - B. The town of Huntingdon.
  - C. A bridge over a creek.
  - D. The town of McLemoresville.
- B. At 800 feet per minute, it will take 8:47 to descend from 7500 feet. At a groundspeed of 107 knots, this covers 15.2 nautical miles. 15.2 nautical miles from Camden puts you over the western edge of the town of Huntingdon. See calculations at end of packet.**
27. As you're descending into Camden, you notice a F-16 at minimum controllable airspeed just above and ahead of you on your left hand side rocking his wings and flashing his navigation lights. You've just been intercepted, what should you do?
- A. Increase your rate of descent in order to expedite your landing at the nearest suitable airport.
  - B. Start flying 360 degree circles while awaiting further instructions.
  - C. Ignore him, there's no reason for you to be intercepted, he's probably just showing off.
  - D. Rock your wings and flash your navigation lights to indicate you will comply with his instructions.
- D. Reference AIM 5-6-2.**
28. Since you've been talking to Memphis center the whole way, and concerned about being intercepted, you contact them for instructions. Memphis advises you it's okay to continue to Camden, but the F-16 is indicating that you should follow him in the direction of Carroll County airport. Now what should you do?
- A. Follow the F-16, but request clarification from Memphis center.
  - B. Follow Memphis center's advice, and count on them to advise the F-16.
  - C. Attempt to contact the F-16 for clarification.
  - D. None of the above.
- A. Reference AIM 5-6-2 3 c 4.**



29. After about 30 nervous seconds, the F-16 makes a hard turn away from you while climbing at full afterburner. What are his intentions?
- A. You're in trouble. He's getting in position to fire on you.
  - B. He's maneuvering out of the way so another aircraft can take over the intercept.
  - C. He's advising you that you can proceed.
  - D. No way to tell what his intentions are.

**C. Reference AIM 5-6-2.**

30. As you get ready to land in Camden, it's starting to get dark and you start to wonder about runway lighting. What kind of runway lighting can you expect to see there?
- A. Medium intensity runway lighting, airport beacon, runway end identifier lights on runway 4, runway end identifier lights on runway 22, precision approach path indicator lights on the right side of runway 4 and precision approach path indicator lights on the left side of runway 22.
  - B. Medium intensity runway lighting, airport beacon, runway end identifier lights on runway 22, precision approach path indicator lights on the right side of runway 4 and precision approach path indicator lights on the left side of runway 22.
  - C. Medium intensity runway lighting, airport beacon, runway end identifier lights on runway 22, precision approach path indicator lights on the left side of runway 4 and precision approach path indicator lights on the left side of runway 22.
  - D. Medium intensity runway lighting, airport beacon, runway end identifier lights on runway 4, precision approach path indicator lights on the right side of runway 4 and precision approach path indicator lights on the left side of runway 22.

**B. Reference sectional chart and A/FD entry for Camden.**

31. Because it's starting to get dark, you decide to turn on the runway lights. How do you go about doing this?
- A. 7 clicks in 5 seconds on frequency 122.8.
  - B. 5 clicks in 5 seconds on frequency 122.8.
  - C. 3 clicks in 5 seconds on frequency 122.8.
  - D. None of the above.

**D. Camden does not have pilot controlled lighting, the lights are in operation from sunset to sunrise. Reference sectional legend.**

32. After landing in Camden, you make it to the restaurant enjoying an awesome catfish dinner. While you're there, Erika starts to think about buying a 20 pound box of frozen catfish filets to take back to Memphis. If she does, and straps the box into the back seat next to George, what will be your ramp weight and center of gravity in Camden? (Round weight to the nearest pound, and center of gravity to the nearest hundredth of an inch.)

**Weight: 2240 pounds (+/-10 pounds) C.G. 89.67" (+/-0.5")**

33. While Erika was contemplating stocking her freezer, George was at the restaurant bar, adding a few shots to the alcoholic beverages he had with dinner. As attempts to stagger out the front door of the restaurant, he stumbles and smashes his head on a rock. The paramedics are called, and they say he has a severe head injury, requiring treatment at a major trauma center. There isn't one in Camden, the nearest one is in Memphis, just a few minutes away from Dewitt-Spain airport. If you use performance cruise at 75% using your best economy mixture (8.8 gallons per hour,) how long would it take to fly George to Dewitt-Spain from Camden at 2500 feet? The local altimeter setting in Camden is 30.01, with a temperature of 28C. Use the winds aloft for 3000 feet, and an outside air temperature of 24C in cruise.

**56:20 (+/- 2 minutes) Reference calculations at end of packet.**

34. What is your cruise true airspeed on this leg?

- A. 115
  - B. 123
  - C. 120
  - D. 105
- A. Use the data given and the performance charts in supplemental data to determine that at performance cruise, you will get a speed of approximately 123 knots. However, your aircraft does not have wheel fairings, so you have to subtract 8 knots, yielding a true airspeed of approximately 115 knots.**

35. Based on your answer in question 34, what indicated airspeed will you be flying in cruise on this leg?

- A. 99
- B. 108
- C. 116
- D. 113

**B. Question 34 determined that your cruise TAS on this leg was 115 knots. With an altimeter setting of 30.01, that yields a pressure altitude in cruise of 2410 feet. Use any manual or electronic flight computer, enter 115 knots TAS, 2410 feet pressure altitude and 24C temperature to find an indicated airspeed of 108 knots.**

36. After consulting with the paramedics, you determine that it will take too long for an ambulance to drive to Camden to pick up George, and that the nearest medical helicopter is tied up with a major car accident. You make the decision to load George up and fly him to Memphis, where an ambulance will be waiting at Dewitt-Spain airport to take him to the trauma center. The paramedics get him stabilized and transport him, you and Erika to the airport. Given the circumstances, you decide to apply the IMSAFE personal checklist to yourself to make sure you're really up for this. What does the S in the IMSAFE checklist stand for?

- A. Sleepiness
- B. Sadness
- C. Sinus
- D. Stress

**D. Reference AIM 8-1-1 i.**

37. After determining that you're okay to fly, you're now underway on your way back to Dewitt-Spain. You got airborne at 21:15 local, about 90 minutes after sunset. What weather conditions do you expect upon arrival in Memphis?

- A. Winds 180/06, scattered clouds at 5000 feet, 6 miles visibility.
- B. Winds 180/06, scattered clouds at 5000 feet, greater than 6 miles visibility.
- C. Winds 160/06, skies clear, greater than 6 miles visibility.
- D. Winds 160/06, skies clear, 6 miles visibility.

**C. Reference AIM 7-1-30.**

38. As you approach the Memphis area, you notice on the chart the abandoned Arlington airport. What, if any information, can you determine about the former airport?
- A. It had a runway oriented northeast-southwest.
  - B. It had a runway at least 3000 feet long.
  - C. It had a runway at least 5000 feet long.
  - D. It's no longer an active airport, no way to determine any information from the chart.

**B. Reference sectional legend.**

39. What will be your landing distance to cross a 50' obstacle, assuming a temperature of 29C, an altimeter setting of 29.98 and the forecast winds for your arrival time?
- A. 850 feet.
  - B. 1070 feet.
  - C. 1290 feet.
  - D. 1510 feet.

**C. Reference given data and performance charts in supplemental data. The forecast winds for KMEM at your arrival time are 160/06.**

40. You make it back to Dewitt-Spain, get George sent off to the hospital, tie down the airplane and look back on the trip. What, if anything did you do wrong?

- I. Flew passengers without being night current.
- II. Flew an intoxicated passenger.
- III. Violated a presidential TFR on the way back to Dewitt-Spain.
- IV. Failed to maintain adequate VFR fuel reserves.

- A. I.
- B. I and II.
- C. I, II and III.
- D. I, II, III and IV.

**A. I is a violation because you only have 2 night landings logged in the preceding 90 days. Reference FAR 61.57 and supplemental data.  
II is not a violation because in an emergency, it is allowed to carry an intoxicated passenger on the aircraft. Having a major head injury and a need for expeditious transportation to a hospital should certainly qualify as an emergency. Reference FAR 91.17.  
III is not a violation because you took off from Camden at 21:15 local time, or 02:15 UTC. The TFR was only in effect until 19:35 local time or 00:35 UTC. Reference NOTAMs in supplemental data.  
IV is not a violation because the total fuel burn for all legs was only 19.9 gallons. You started with 48 gallons of usable fuel, leaving 28.1 gallons remaining. Even at your highest fuel burn of 8.8 gallons per hour, this is still over 3 hours of fuel remaining, well in excess of the 30 minute reserve required for daytime flight or 45 minute reserve required for night flight per FAR 91.151.**

### Leg 1 Calculations:

	True Course	Wind	True Heading	True Airspeed	Ground Speed	Fuel Flow	Distance	Time	Fuel
Climb	0007	N/A	N/A	N/A	N/A	N/A	14	10:00	2.3 (includes taxi, run-up and takeoff)
Cruise	007	158/13	010	108.25	119	7.6	18.8	9:29	1.2
Descent @ 800 fpm	007	150/12	011	108.25	118	5.32	12.9	6:33	.6
Total	N/A	N/A	N/A	N/A	N/A	N/A	45.7	26:02	4.1

**Cruise Altitude:** 5500'

**Takeoff Time:** 21:37 zulu/16:37 local

**Arrival Time:** 22:03:02 zulu/17:03:02 local rounds to 22:03 zulu/17:03 local

## Leg 2 Calculations:

	True Course	Wind	True Heading	True Airspeed	Ground Speed	Fuel Flow	Distance	Time	Fuel
Climb	088	N/A	N/A	N/A	N/A	N/A	23	16:15	2.3
Cruise	088	165/13	095	110.5	107	7.6	49.8	27:56	3.5
Descent @ 800 fpm	088	150/12	094	110.5	104	5.32	15.2	8:47	.8
Total	N/A	N/A	N/A	N/A	N/A	N/A	88	52:58	7.4

Cruise Altitude: 7500'

Engine Start: 23:00 zulu/18:00 local

Taxi/Run-Up Time: 7 minutes

Takeoff Time: 23:10 zulu/18:10 local

Landing Time: 00:02:58 zulu/19:02:58 local rounds to 00:03 zulu/19:03 local

## Weight and Balance:

	Weight	Arm	Moment/1000
Basic Empty Weight	1541		134835
Pilot and Front Passenger	305	80.5	24552.5
Rear Passenger	155	118.1	18305.5
Fuel (43.9 gallons)	263.4	95	25023
Total Ramp Weight	2264.4	C.G. 89.52"	202716

### Leg 3 Calculations:

	True Course	Wind	True Heading	True Airspeed	Ground Speed	Fuel Flow	Distance	Time	Fuel
<b>Climb</b>	243	N/A	N/A	N/A	N/A	N/A	5.6	3:45	.8
<b>Cruise</b>	243	150/12	237	114.5	114	8.8	94.5	49:44	7.3
<b>Descent @ 800 fpm</b>	243	150/12	237	114.5	114	6.2	5.4	2:51	.3
<b>Total</b>	N/A	N/A	N/A	N/A	N/A	N/A	105.5	56:20	8.4

**Cruise Altitude: 2500'**

**Takeoff Time: 02:15 zulu/21:15 local**

**Arrival Time: 03:11:20 zulu/22:11:20 local rounds to 03:11 zulu/22:11 local**

### Weight and Balance:

	Weight	Arm	Moment/1000
<b>Basic Empty Weight</b>	1541		134835
<b>Pilot and Front Passenger</b>	305	80.5	24552.5
<b>Rear Passenger + Box of Fish</b>	175	118.1	20667.5
<b>Fuel (36.5 gallons)</b>	219	95	20805
<b>Total Ramp Weight</b>	2240	C.G. 89.67"	200860