Annual Standardization Exam Questions (35)

(Question 1 references 14 CFR Part 1)

1. With respect to the certification of airmen, which is a class of aircraft?

   A. Single-engine land and sea, multiengine land and sea.
   B. Lighter-than-air, airship, hot air balloon, gas balloon.
   C. Airplane, rotorcraft, glider, lighter-than-air.

(Question 2 references 14 CFR Part 43)

2. Who may perform preventive maintenance on an aircraft and approve it for return to service?

   A. Student or Recreational pilot.
   B. None of the above.
   C. Private or Commercial pilot.

(Question 3 references 14 CFR Part 71).

3. Normal VFR operations in Class D airspace with an operating control tower require the ceiling and visibility to be at least

   A. 1,000 feet and 3 miles.
   B. 1,000 feet and 1 mile.
   C. 2,500 feet and 3 miles.

(Questions 4 – 9 reference 14 CFR Part 91)

4. Preflight action, as required for all flights away from the vicinity of an airport, shall include

   A. an alternate course of action if the flight cannot be completed as planned.
   B. a study of arrival procedures at airports/ heliports of intended use.
   C. the designation of an alternate airport.

5. What action, if any, is appropriate if the pilot deviates from an ATC instruction during an emergency and is given priority?

   A. File a detailed report within 48 hours to the chief of the appropriate ATC facility, if requested.
   B. File a report to the FAA Administrator, as soon as possible.
   C. Take no special action since you are pilot in command.

6. Airspace at an airport with a part-time control tower is classified as Class D airspace only

A. when the weather minimums are below basic VFR.
B. when the associated control tower is in operation.
C. when the associated Flight Service Station is in operation.

7. A special VFR clearance authorizes the pilot of an aircraft to operate VFR while within Class D airspace when the visibility is

A. at least 1 mile and the aircraft can remain clear of clouds.
B. at least 3 miles and the aircraft can remain clear of clouds.
C. less than 1 mile and the ceiling is less than 1,000 feet.

8. When are non-rechargeable batteries of an emergency locator transmitter (ELT) required to be replaced?

A. At the time of each 100-hour or annual inspection.
B. When 50 percent of their useful life expires.
C. Every 24 months.

9. The airworthiness of an aircraft can be determined by a preflight inspection and a

A. log book endorsement from a flight instructor.
B. statement from the owner or operator that the aircraft is airworthy.
C. review of the maintenance records.

(Question 10 references NTSB 830)

10. Which incident requires an immediate notification to the nearest NTSB field office?

A. Flight control system malfunction or failure.
B. A forced landing due to engine failure.
C. Landing gear damage, due to a hard landing.

(Questions 11 – 14 reference AC 61-23)

11. The angle of attack at which an airplane wing stalls will

A. change with an increase in gross weight.
B. increase if the CG is moved forward.
C. remain the same regardless of gross weight.

12. While cruising at 9,500 feet MSL, the fuel/air mixture is properly adjusted. What will occur if a descent to 4,500 feet MSL is made without readjusting the mixture?

A. There will be more fuel in the cylinders than is needed for normal combustion, and the excess fuel will absorb heat and cool the engine.
B. The fuel/air mixture may become excessively lean.
C. The excessively rich mixture will create higher cylinder head temperatures and may cause detonation.

13. Which condition is most favorable to the development of carburetor icing?

A. Temperature between 32 and 50 °F and low humidity.
B. Any temperature below freezing and a relative humidity of less than 50 percent.
C. Temperature between 20 and 70 °F and high humidity.

14. How do variations in temperature affect the altimeter?

A. Lower temperatures lower the pressure levels and the indicated altitude is lower than true altitude.
B. Pressure levels are raised on warm days and the indicated altitude is lower than true altitude.
C. Higher temperatures expand the pressure levels and the indicated altitude is higher than true altitude.

(Question 15 references FAA-H-8083-3)

15. (Refer to figure 15, area A.) How should the flight controls be held while taxiing a tricycle-gear equipped airplane into a left quartering headwind?

A. Left aileron up, elevator down.
B. Left aileron down, elevator neutral.
C. Left aileron up, elevator neutral.

(Questions 16 - 18 reference AC 00-6)

16. If a flight is made from an area of low pressure into an area of high pressure without the altimeter setting being adjusted, the altimeter will indicate

A. the actual altitude above sea level.
B. lower than the actual altitude above sea level.
C. higher than the actual altitude above sea level.

17. One weather phenomenon which will always occur when flying across a front is a change in the

A. wind direction.
B. stability of the air mass.
C. type of precipitation.

18. Upon encountering severe turbulence, which flight condition should the pilot attempt to maintain?

A. Constant altitude and airspeed.
B. Level flight attitude.
C. Constant angle of attack.

(Questions 19 – 21 reference AC 00-45)

19. To get a complete weather briefing for the planned flight, the pilot should request

A. a general briefing.
B. an abbreviated briefing.
C. a standard briefing.

20. (Refer to figure 15.) In the TAF from KOKC, the clear sky becomes

A. overcast at 2,000 feet during the forecast period between 2200Z and 2400Z.
B. overcast at 200 feet with the probability of becoming overcast at 400 feet during the forecast period between 2200Z and 2400Z.
C. overcast at 200 feet with a 40% probability of becoming overcast at 600 feet during the forecast period between 2200Z and 2400Z.

21. (Refer to figure 18.) According to the Weather Depiction Chart, the weather for a flight from southern Michigan to north Indiana is ceilings

A. greater than 3, 000 feet and visibility greater than 5 miles.
B. less than 1,000 feet and/or visibility less than 3 miles.
C. 1,000 to 3,000 feet and/or visibility 3 to 5 miles.

(Questions 22 – 23 reference AC 61-23)

22. (Refer to figure 22.) What is the estimated time en route from Mercer County Regional Airport (area 3) to Minot International (area 1)? The wind is from 330° at 25 knots and the true airspeed is 100 knots. Add 3-1/2 minutes for departure and climb-out.

A. 44 minutes.
B. 48 minutes.
C. 52 minutes.

23. (Refer to figure 26, area 5.) The VOR is tuned to the Dallas/Fort Worth VORTAC. The omnibearing selector (OBS) is set on 253°, with a TO indication, and a right course deviation indicator (CDI) deflection. What is the aircraft's position from the VORTAC?

A. North-northeast.
B. East-northeast.
C. West-southwest.

(Question 24 references AIM)

24. (Refer to figure 26, area 3.) If Redbird Tower is not in operation, which frequency should be used as a Common Traffic Advisory Frequency (CTAF) to monitor airport traffic?

A. 120.3 MHz.
B. 122.95 MHz.
C. 126.35 MHz.

(Questions 25 – 26 reference AC 61-23)

25. (Refer to figures 33 and 34.) Determine if the airplane weight and balance is within limits.

Front seat occupants	415 lb
Rear seat occupants	110 lb
Fuel, main tanks	44 gal
Fuel, aux. tanks	19 gal
Baggage	32 lb

A. 19 pounds overweight, CG within limits.
B. 19 pounds overweight, CG out of limits forward.
C. Weight within limits, CG out of limits.

26. (Refer to figure 41.) Determine the total distance required for takeoff to clear a 50-foot obstacle.

OAT	Std
Pressure altitude	4,000 ft
Takeoff weight	2,800 lb
Headwind component	Calm

A. 1,750 feet.
B. 1,500 feet.
C. 2,000 feet.

(Questions 27 – 28 reference AIM)

27. (Refer to figure 49.) What is the difference between area A and area E on the airport depicted?

A. "A" may be used for taxi and takeoff; "E" may be used only as an overrun.
B. "A" may be used only for taxiing; "E" may be used for all operations except landings.
C. "A" may be used for all operations except heavy aircraft landings; "E" may be used only as an overrun.

28. Where is the "Available Landing Distance" (ALD) data published for an airport that utilizes Land and Hold Short Operations (LAHSO) published?

A. Aeronautical Information Manual (AIM).
B. Airport/Facility Directory (A/FD).
C. 14 CFR Part 91, General Operating and Flight Rules.

(Question 29 references AC 60-22)

29. What is the antidote when a pilot has a hazardous attitude, such as "Antiauthority"?

A. Rules do not apply in this situation.
B. I know what I am doing.
C. Follow the rules.

(Questions 30 – 34 reference AFMAN 34-232)

30. You have logged 195 pilot hours. To act as pilot in command you must have

A. Logged 3 takeoffs and landings in the same category and class aircraft within the previous 90 days
B. Logged 3 takeoffs and landings in the same make and model aircraft within the previous 60 days
C. Logged 3 takeoffs and landings in the same category and class aircraft within the previous 60 days

31. You are planning a day VFR flight in controlled airspace. What is the minimum ceiling and visibility required?

A. 1000 foot ceiling and 3 miles visibility
B. 2500 foot ceiling and 5 miles visibility
C. 1500 foot ceiling and 3 miles visibility

32. You arrived at work this morning at 0730 (7:30 a.m.) and plan to fly solo at the aero club after work. What is the latest time you may operate the aircraft?

A. 1930 (7:30 p.m.)
B. 2330 (11:30 p.m.)
C. 1730 (5:30 p.m.)

33. You would like to fly an aero club Cessna 172 to an uncontrolled (non-towered) runway. Your computed takeoff roll is 1200 feet and your landing roll is 1000 feet. What runway procedures are applicable?

A. Runway must be at least 2000 feet long and 50 feet wide
B. According to AFMAN 34-232, aero club aircraft are not allowed to land at uncontrolled airfields
C. Runway must be at least 2200 feet long and 50 feet wide

34. You are planning a day VFR cross-country flight in your Cessna 172. After "spinning the winds", you determine it will take 4 hours and 38 minutes to fly to your destination. You have 5 hours and 30 minutes of fuel available using normal cruise consumption figures. Can you legally attempt this flight?

A. Yes, I only need 30 minutes of fuel reserve for day VFR flights
B. No, I must plan to have 1-hour fuel reserve, based on normal cruise consumption, upon landing at my destination (or alternate, if required)
C. Yes, I can get airborne and update my fuel status as I head towards my destination. If need be, I'll find an airfield short of my destination to refuel

(Question 35 references AFMAN 34-232, 14 CFR Part 91)

35. You are flying an aero club Cessna 172 in the local training area (non-mountainous) and are currently over a town (congested area). What is the minimum altitude you must maintain above the town to practice slow flight?

A. 1000 feet AGL
B. 2000 feet AGL
C. 1000 feet above any obstacle or 1500 feet AGL, whichever is higher

Annual Standardization Exam Figures

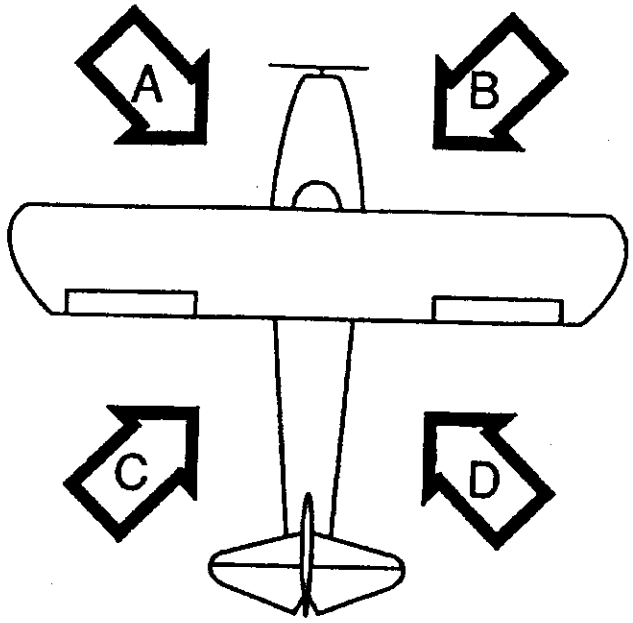

Figure 9. – Control Position for Taxi

TAF

KMEM 121720Z 121818 20012KT 5SM HZ BKN030 PROB40 2022 1SM TSRA OVC008CB
FM2200 33015G20KT P6SM BKN015 OVC025 PROB40 2202 3SM SHRA
FM0200 35012KT OVC008 PROB40 0205 2SM -RASN BECMG 0608 02008KT BKN012
BECMG 1012 00000KT 3SM BR SKC TEMPO 1214 1/2SM FG
FM1600 VRB06KT P6SM SKC=

KOKC 051130Z 051212 14008KT 5SM BR BKN030 TEMPO 1316 1 1/2SM BR
FM1600 18010KT P6SM SKC BECMG 2224 20013G20KT 4SM SHRA OVC020
PROB40 0006 2SM TSRA OVC008CB BECMG 0608 21015KT P6SM SCT040=

Figure 15. – Terminal Aerodrome Forecasts (TAF)

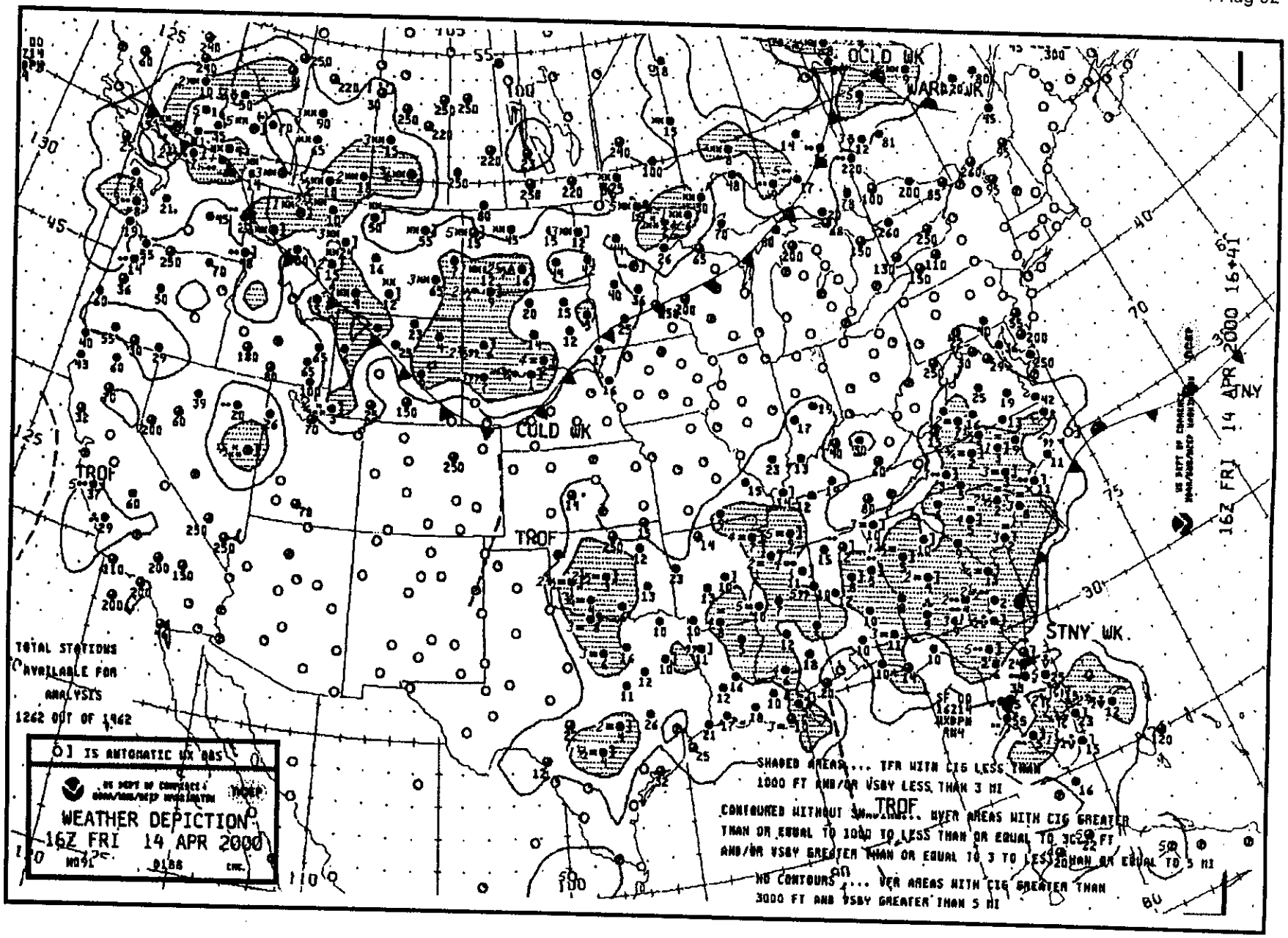

Figure 18. – Weather Depiction Chart

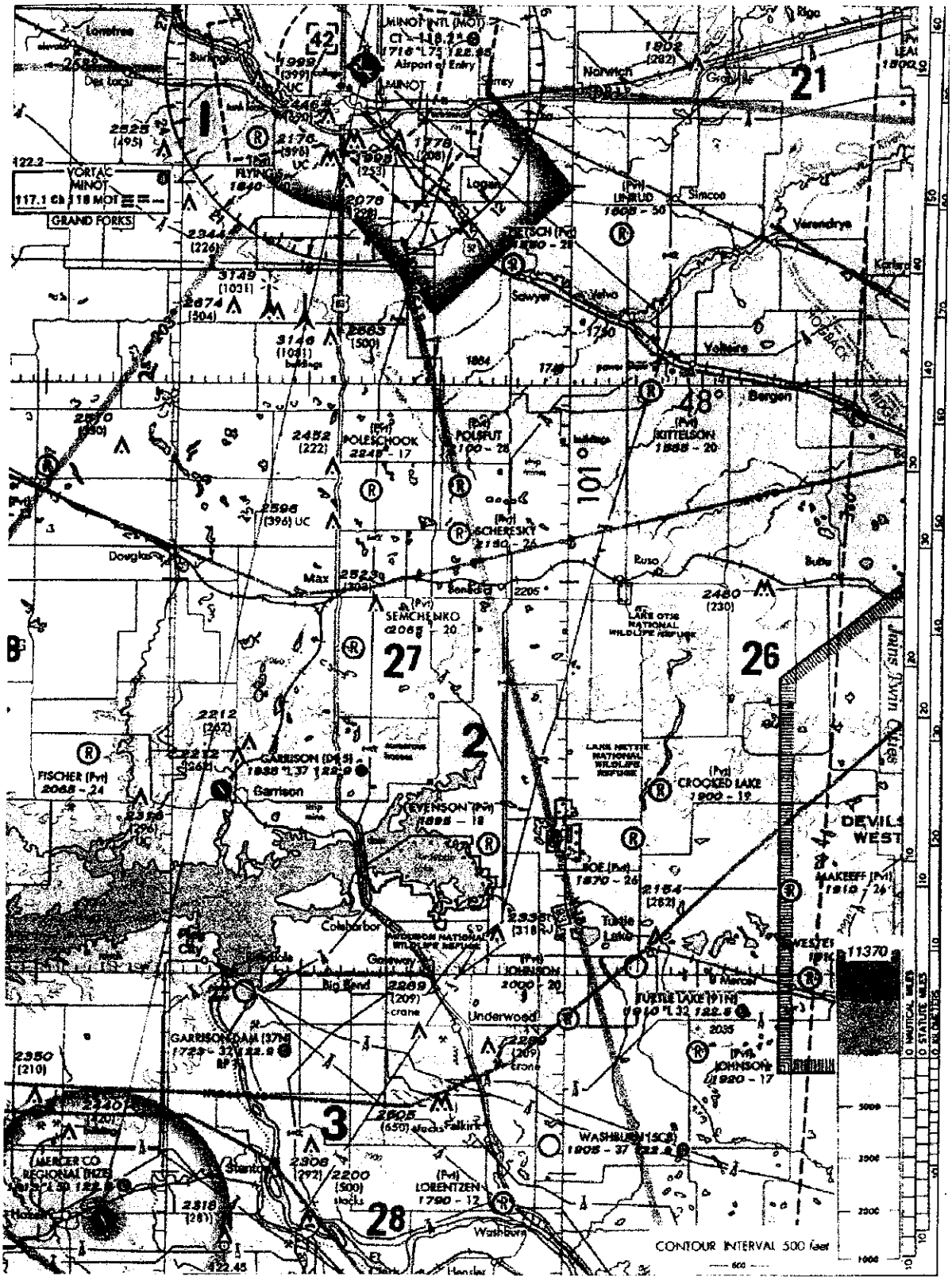

Figure 22. – Sectional Chart
(change 1, 25 Nov 02) (use scale or latitude tick marks to measure distance)

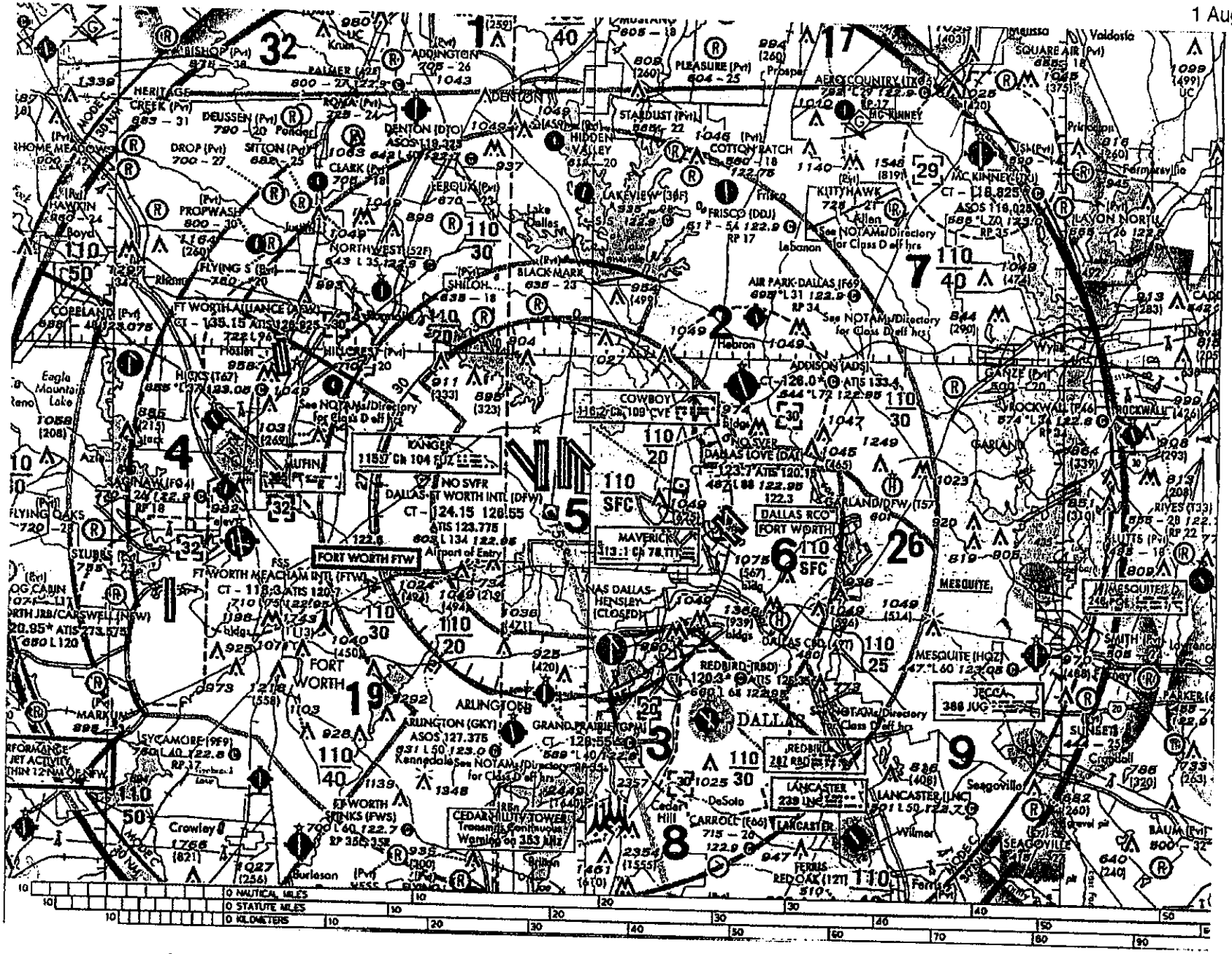

Figure 26. – Sectional Chart

USEFUL LOAD WEIGHTS AND MOMENTS

OCCUPANTS

FRONT SEATS ARM 85		REAR SEATS ARM 121	
Weight	Moment / 100	Weight	Moment / 100
120	102	120	145
130	110	130	157
140	119	140	169
150	128	150	182
160	136	160	194
170	144	170	206
180	153	180	218
190	162	190	230
200	170	200	242

USABLE FUEL

MAIN WING TANKS ARM 75		
Gallons	Weight	Moment / 100
5	30	22
10	60	45
15	90	68
20	120	90
25	150	112
30	180	135
35	210	158
40	240	180
44	264	198

BAGGAGE OR 5TH SEAT OCCUPANT ARM 140

Weight	Moment / 100
10	14
20	28
30	42
40	56
50	70
60	84
70	98
80	112
90	126
100	140
110	154
120	168
130	182
140	196
150	210
160	224
170	238
180	252
190	266
200	280
210	294
220	308
230	322
240	336
250	350
260	364
270	378

AUXILIARY WING TANKS ARM 94

Gallons	Weight	Moment / 100
5	30	28
10	60	56
15	90	85
19	114	107

*OIL

Quarts	Weight	Moment / 100
10	19	5

*Included in basic Empty Weight

Empty Weight - 2015

MOM / 100 - 1554

MOMENT LIMITS vs WEIGHT

Moment limits are based on the following weight and center of gravity limit data (landing gear down).

WEIGHT CONDITION	FORWARD CG LIMIT	AFT CG LIMIT
2950 lb (takeoff or landing)	82.1	84.7
2525 lb	77.5	85.7
2475 lb or less	77.0	85.7

Figure 33. – Moment Chart

MOMENT LIMITS vs WEIGHT (Continued)

Weight	Minimum Moment 100	Maximum Moment 100
2100	1617	1800
2110	1625	1808
2120	1632	1817
2130	1640	1825
2140	1648	1834
2150	1656	1843
2160	1663	1851
2170	1671	1860
2180	1679	1868
2190	1686	1877
2200	1694	1885
2210	1702	1894
2220	1709	1903
2230	1717	1911
2240	1725	1920
2250	1733	1928
2260	1740	1937
2270	1748	1945
2280	1756	1954
2290	1763	1963
2300	1771	1971
2310	1779	1980
2320	1786	1988
2330	1794	1997
2340	1802	2005
2350	1810	2014
2360	1817	2023
2370	1825	2031
2380	1833	2040
2390	1840	2048
2400	1848	2057
2410	1856	2065
2420	1863	2074
2430	1871	2083
2440	1879	2091
2450	1887	2100
2460	1894	2108
2470	1902	2117
2480	1911	2125
2490	1921	2134
2500	1932	2143
2510	1942	2151
2520	1953	2160
2530	1963	2168
2540	1974	2178
2550	1984	2184
2560	1995	2192
2570	2005	2200
2580	2016	2208
2590	2026	2216

Weight	Minimum Moment 100	Maximum Moment 100
2600	2037	2224
2610	2048	2232
2620	2058	2239
2630	2069	2247
2640	2080	2255
2650	2090	2263
2660	2101	2271
2670	2112	2279
2680	2123	2287
2690	2133	2295
2700	2144	2303
2710	2155	2311
2720	2166	2319
2730	2177	2326
2740	2188	2334
2750	2199	2342
2760	2210	2350
2770	2221	2358
2780	2232	2366
2790	2243	2374
2800	2254	2381
2810	2265	2389
2820	2276	2397
2830	2287	2405
2840	2298	2413
2850	2309	2421
2860	2320	2428
2870	2332	2436
2880	2343	2444
2890	2354	2452
2900	2365	2460
2910	2377	2468
2920	2388	2475
2930	2399	2483
2940	2411	2491
2950	2422	2499

Figure 34. – Moment Chart

TAKEOFF DISTANCE

ASSOCIATED CONDITIONS:

POWER	FULL THROTTLE 2600 RPM
MIXTURE	LEAN TO APPROPRIATE FUEL PRESSURE
FLAPS	UP
LANDING GEAR	RETRACT AFTER POSITIVE CLIMB ESTABLISHED
COWL FLAPS	OPEN

WEIGHT ~ POUNDS	TAKEOFF SPEED			
	LIFT-OFF		50 FT	
	KNOTS	MPH	KNOTS	MPH
2950	66	76	72	83
2800	64	74	70	81
2600	63	72	68	78
2400	61	70	66	76
2200	58	67	63	73

EXAMPLE:

OAT	15 °C (59 °F)
PRESSURE ALTITUDE	5650 FT
TAKEOFF WEIGHT	2950 LB
HEADWIND COMP.	9.0 KNOTS
GROUND ROLL	1375 FT
TOTAL DISTANCE OVER A 50 FT OBSTACLE	2300 FT
TAKEOFF SPEED AT LIFT-OFF	66 KNOTS (76 MPH)
50 FT	72 KNOTS (83 MPH)

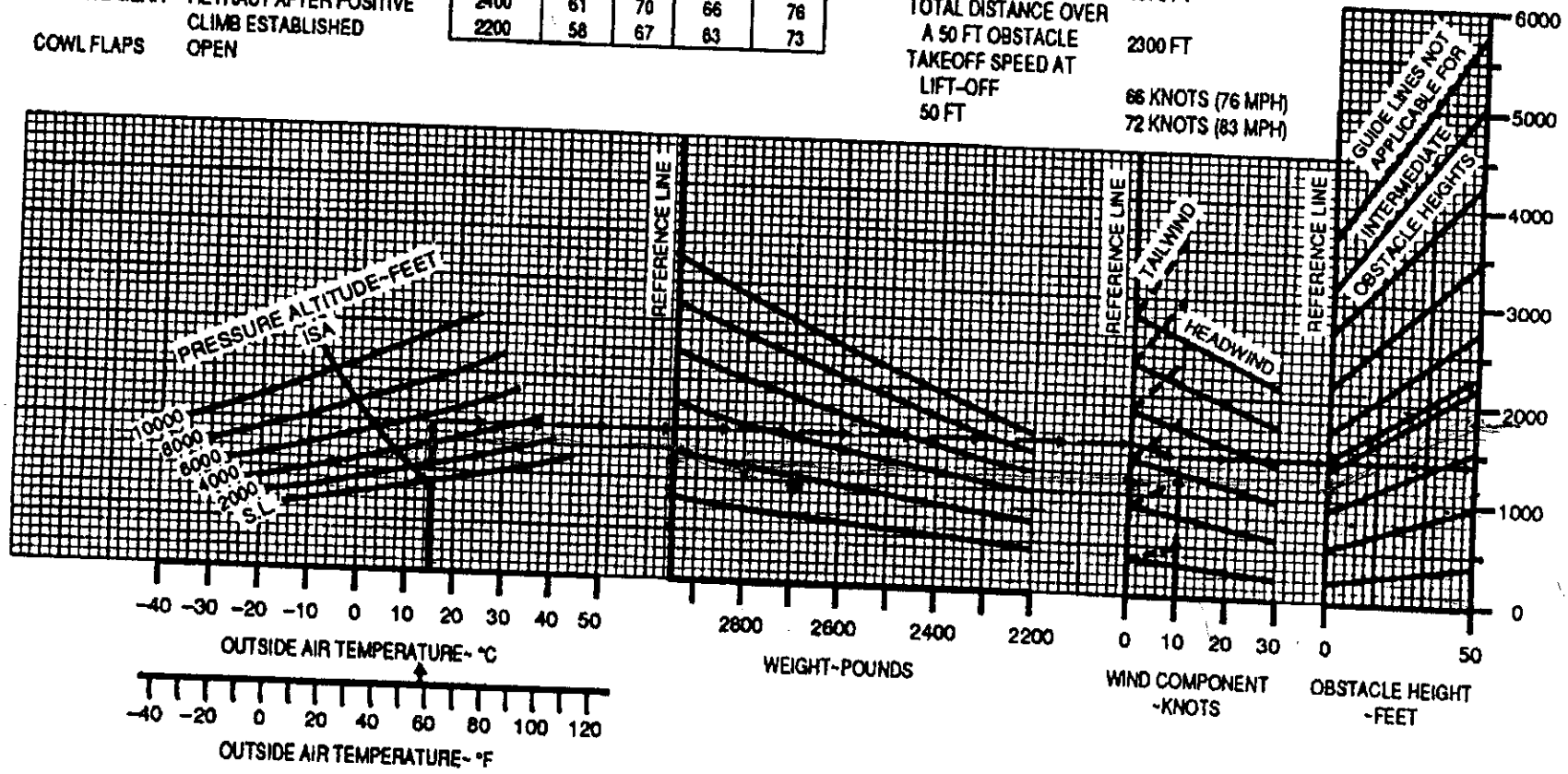

Figure 41. – Airplane Takeoff Distance Graph

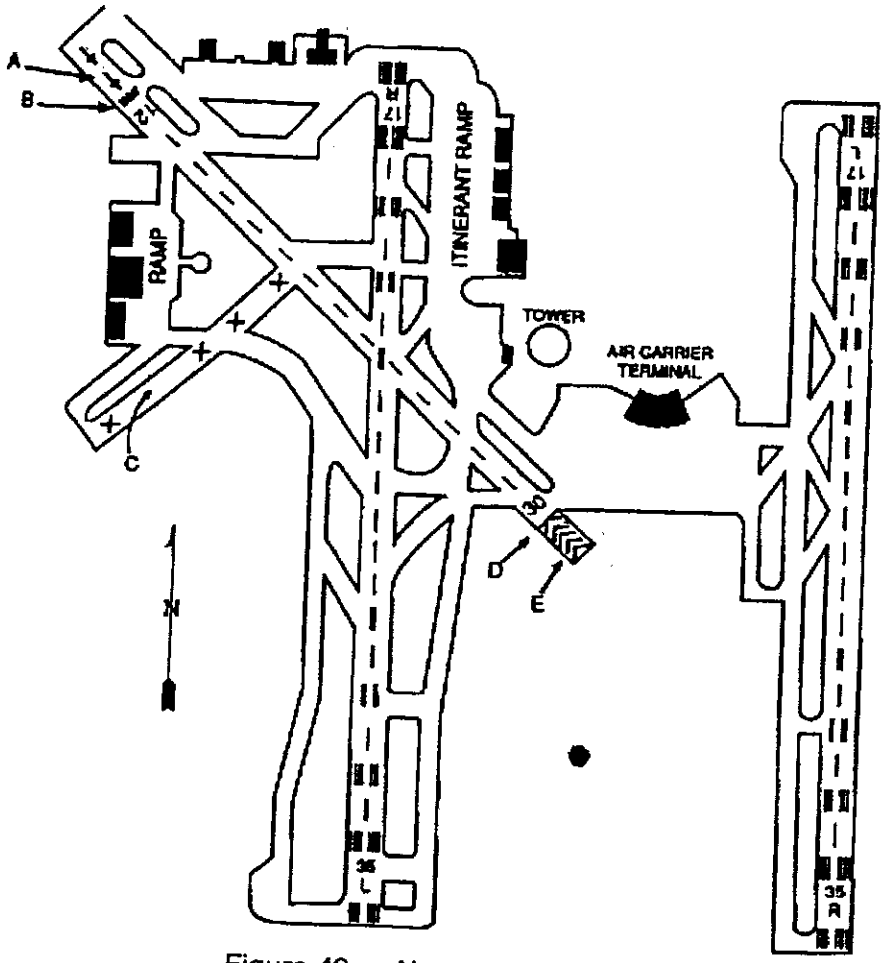

Figure 49. – Airport Diagram

ANNUAL STANDARDIZATION EXAM
LOCAL QUESTIONS (Revised-0103)

36. It is 15 September. An Aero Club Private Pilot with 175 hours total pilot time has the following recent experience in the following two makes and models of airplanes, in which he was qualified for day and night flight as of 15 June as PIC.

Piper Warrior: 10 touch and go day landings on 18 June the same year.
Piper Arrow: 3 full stop day landings on 15 June, 2 full stop night landings on 17 July, 1 full stop night landing 16 August the same year.

The pilot is:

a. day current in both the Warrior and the Arrow
b. day current in the Warrior and only night current in the Arrow
c. not current in either the Warrior or the Arrow
d. not current in the Warrior, day and night current in the Arrow

37. Which of these preflight, engine start, and parking items are applicable:

1. parking within 50 feet of the refueling area is not allowed
2. during engine start, prop blast is directed onto the grass field surrounding the Aero Club ramp
3. each PIC will ensure his aircraft is within the proper weight and balance limits
4. positioning the aircraft on the concrete portion of the ramp before engine start is permitted
5. each pilot is responsible for verifying the beginning Hobbs time prior to power-on operation; if any portion of the next tenth of an hour is in view upon power-off at the end of the flight, the ending Hobbs recording shall include that tenth

a. 1, 2. 3, 4
b. 1, 2. 4, 5
c. 2, 3. 4, 5,
d. 1, 2. 3, 5

38. The minimum altitude that an Aero Club pilot can fly is:

a. 1000 ft. agl (2,000 ft. agl in designated mountainous terrain) unless required by specific regulation, airspace restriction, for take-off or landing, or when accomplishing requirements directed by an approved syllabus of instruction
b. 500 ft. agl over other than congested areas, except over open water or sparsely populated areas
c. 500 ft. agl during practice simulated forced landings, except to approved runways
d. a and c

39. You are required to report leaving Paterson's Class D airspace.
    a. true
    b. false
    c. true, if you are flying the standard Aero Club departure out of WPAFB
    d. only if requested by approach control

40. You are on a VFR cross-country returning to WPAFB. When you are approximately 75 miles from WPAFB, you discover that you no longer have communications capability. The most appropriate action would be:
    a. land at the nearest airport and call the Aero Club
    b. Squawk 7600 and listen on the Patterson VOR for instructions from the tower
    c. Proceed VFR to an acceptable uncontrolled airport near WPAFB. Call either the Aero Club or Patterson operations and comply with instructions received for return to WPAFB
    d. Proceed to Point Alpha, then squawk 7600 and proceed toward WPAFB control tower. Look for light gun signals and proceed in accordance with the light gun signals

41. Returning to WPAFB from a local VFR flight, you attempt to contact Patterson's tower at Point Alpha and there is no response from the tower. Your best action will be.
    a. circle Point Alpha until receiving an alternating red and green light, rock your wings in acknowledgement. Continue to final for 23L and observe a steady green light in order to land
    b. execute an immediate 180-degree turn, climb to 2,500 ft: msl and proceed to Greene County airport (I19). Then call the Aero Club for instructions
    c. continue toward Patterson and observe tower. If you receive a green flashing light, continue and land
    d. continue toward Patterson and observe tower. If you see a steady green light followed by an alternating red and green light, rock your wings in acknowledgement and continue to land while exercising extreme caution

42. The standard procedure for Aero Club VFR cross-country flights out of WPAFB is to open your flight plan with Patterson operations upon departure and to close it with them upon return.
    a. true
    b. false
    c. only if you have not contacted FSS to open or close your flight plan

43. Upon completion of your run-up on taxiway Bravo, you contact Patterson tower for take-off clearance. The tower says, "runway 5L, cleared for take-off."
The most appropriate action is for you to:
a. request permission to taxi back on runway 23R for your take-off on 5L
b. use the appropriate taxiways to get to the midfield intersection (taxiway Charlie) and take-off from there
c. advise the tower that you are not in position for runway 5L take-off and request instructions
d. back-taxi on runway 5L until you have sufficient runway available and take-off

44. Minimum fuel reserve for VFR flight at night is:
a. 45 minutes at normal cruise airspeed
b. 45 minutes at maximum endurance airspeed
c. 60 minutes at normal cruise airspeed
d. 60 minutes at maximum endurance airspeed

45. You arrive at work today at 0730 and intend to make a solo flight after work. You take-off at 1745. You must be on the ground by:
a. 1930
b. 2130
c. 2000 EST or 2200 EDT on Tuesday, Thursday, or Saturday
d. there is no restriction

46. Aero Club Safety meetings are normally conducted on the 4th Monday of each month. Any member who misses a safety meeting is non-current for flight in Aero Club aircraft by AF Regulation and is denied all Aero Club flying privileges. A member can regain flying privileges by:
a. after one meeting, review the video minutes and have the SOF annotate his/her PIF card
b. after two meetings, review both video tape minutes and have the SOF annotate his/her PIF card
c. after three meetings, review video tape minutes for all meetings missed, receive counseling by the manager, and personally attend a safety meeting
d. all of the above

47. A cross-country flight can be scheduled up to sixty-days in advance. A cross-country request must be approved no less than three days prior to departure for overnight flights (day of departure for out and back flights; not required for student cross-country flights on approved routes). Which item below is not required on the cross-country request:

a. each leg of flight to include estimated time enroute, fuel burn at 75% power against a 15 knot headwind
b. point of contact at each overnight stop
c. forecast weather for each destination
d. points of intended landings (to include city name and airport identifier)

48. Departure procedure for Aero Club aircraft is:
a. runway heading to 1300 ft. msl; turn to a 180 degree track, and climb to 2500 ft. msl
b. runway heading to 1300 ft. msl; obtain permission to turn to a 180 degree track, and climb to 2500 ft. msl
c. runway heading to 1300 ft. msl; obtain permission to turn to a 180 degree heading, and climb to 2500 ft. msl
d. runway heading to 1300 ft. msl; turn to a 180 degree heading, and climb to 2000 ft. msl

49. Standard arrival procedure for Aero Club aircraft is:
a obtain ATIS information; cross Point Alpha at 2000 ft. msl; contact Patterson tower, proceed as directed descending to 1800 ft. msl
b. obtain ATIS information; cross Point Alpha at 2000 ft. msl, contact Patterson tower, proceed directly to midfield downwind
c obtain ATIS information; cross Point Alpha at 2000 ft. msl, proceed directly to base leg descending to 1800 ft. msl
d. obtain ATIS information; cross Point Alpha at 2000 ft. agl, contact Patterson tower, proceed as directed descending to 1800 ft. agl

50. Qualified pilots (night checked out and current with at least a Private Pilot certificate and 50 hours PIC after obtaining the rating) may fly as PIC at night except for the following:
a non-precision approaches to local airports with an operational visual glide slope indicator
b make all landings to a full stop
c VFR flight outside the local area
d Simulate forced landings to lighted runways with a night qualified and current Aero Club instructor occupying a pilot seat