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U.S. CIVIL-AERONAUTICS-AUTHORITY

EXAM. - QUESTIONS

FOR

PRACTICE - STUDY

CIVIL AIR REGULATIONS

1. What is contact flight? When may contact flight be made?
2. What is instrument flight?
3. To what flights do contact flight rules apply?
4. Is it necessary for a pilot making a flight in accordance with contact flight rules to have a flight plan?
5. Is it necessary for a pilot making a flight in accordance with contact flight rules to make any communications contacts enroute? *NO*
6. Is it necessary for a pilot making a flight in accordance with contact flight rules to fly at any prescribed altitude when above 1000 feet above the ground or water? *NO*
7. While enroute, what air traffic rules, in addition to those which apply elsewhere, must a pilot observe in making a routine contact flight on a civil airway?
8. What is the minimum ceiling for flight in accordance with contact flight rules on the civil airways, day or night, if precipitation is occurring?
9. What is the lowest ceiling for flight in accordance with contact flight rules on the civil airway during daylight hours, if no precipitation is occurring?
10. What is the minimum visibility for flights in accordance with contact flight rules on the civil airway during the hours of daylight?
11. What is the minimum visibility for flights in accordance with contact flight rules on the civil airway during the hours of darkness?
12. What general rule relative to visibility must be remembered by a pilot making a flight in accordance with contact flight rules, on a civil airway?
13. Do the federal air traffic rules require a private pilot or a student pilot to give way to an airline or military pilot because of any difference in the nature of their operation?
14. Is it possible to engage in acrobatics on a civil airway?
15. Why is it necessary to insist upon an arrival message if a pilot making a flight in accordance with contact flight rules, has chosen to submit a flight plan for transmission to his destination?
16. What is probably the most important rule affecting pilots making flights in accordance with contact flight rules?
17. What is the width of a civil airway? *20 miles*
18. Are air space reservations located within the limits of a civil airway considered part of a civil airway?
19. Are all airports located within the limits of a civil airway, whether civil, military, or any other kind, considered a part of the airway?
20. May an airport off a civil airway be listed as a control airport?
21. Where are most control airports located with reference to airways?
22. Is it necessary mandatory that a control tower be in operation at a control airway?
23. What is the shape and size of an ordinary control zone?
24. When will a control zone be slightly irregular in shape?
25. Under what conditions may the ceiling be reported as unlimited?
26. Under what conditions may the ceiling be reported as unlimited?
26. What is the radius of a control zone of intersection?
27. Is the ceiling ever reported as unlimited if an overcast exists?
28. Is the visibility reported the least, average, or greatest distance objects can be seen and identified?
29. For which airports are weather reports classified?
30. How are weather reports classified?
31. What are the symbols for the different classifications of the weather?
32. May a pilot fly an uncertificated aircraft on a civil airway for noncommercial purposes if he stays within his own state?
33. May a pilot fly an uncertificated aircraft in the parts of control zones of intersection which lie outside the civil airway, for non-commercial purposes, if he stays within his own state?
34. Is a person flying entirely off the civil airway subject to federal regulations if he is engaged in interstate or foreign air commerce?

35. Is a person flying an aircraft entirely off the airways subject to federal regulations if his operations are confined entirely to one state?
36. Is a pilot required to observe federal regulations if he is just "joyriding" within the limits of a civil airway?
37. Ordinarily, in what direction must a pilot circle an airport as he approaches for a landing?
38. Is an airport control tower operator permitted to authorize contact approaches not in conformity with normal procedure?
39. Ordinarily, for how great a distance shall a pilot making a landing maintain a straight approach before crossing the airport boundary?
40. What is the radius of the area within which pilots of low flying aircrafts on contact flights must conform to the flow of traffic about an airport?
41. Is a pilot on instruments required to conform to the flow of traffic around an airport?
42. Is it necessary to place blocks in front of the wheels before starting an engine if the aircraft is equipped with adequate brakes?
43. While in flight, has a glider the right of way over a scheduled airline aircraft?
44. When two aircraft are approaching head on, are the pilots conforming to regulations if they alter their courses so as to pass each other a distance of 400 ft? *NO*
45. When two are on crossing courses at approximately the same altitude, which one has the right of way? *THE ONE WITH THE OTHER ON HIS LEFT*
46. When one aircraft overtakes another, which one has the right of way? *THE OVERTAKEN*
47. Ordinarily, aircraft shall not be flown closer to one another than what distance? *300 FT*
48. Is it possible permissible for pilots of civil aircraft to fly closer than 500 feet in formation if they have agreed upon such a procedure beforehand? *YES*
49. May a person going on a hunting trip take along his firearms and ammunition if the owner or operator of the aircraft does not object? *YES*
50. May a pilot of a civil aircraft tow another aircraft or any other object or device? *NO*
51. May the pilot or any other person on board a civil aircraft drop or release any thing or object other than unconfined fine sand, lead shot, fuel, or water while in flight? *NO*
52. Is the pilot of an aircraft responsible if a passenger violates the rule relative to the dropping of objects or things? *YES*
53. Can a pilot of an aircraft, other than a public aircraft, be given permission to fly within an airspace reservation?
54. Exclusive of landing or take-off, what is the minimum allowable altitude over cities? *1000 FT*
55. Exclusive of landing or take-off, what is the minimum allowable altitude over open country, if the pilot is making a contact flight in a land plane? *500 FT*
56. Exclusive of landing or take-off, what is the minimum allowable altitude if a pilot is making a contact flight in a seaplane or amphibian during daylight hours over open water where a safe emergency landing may be made at any time? *300 FT*
57. Exclusive of landing or take-off, what is the minimum allowable altitude over ground or water if a pilot is making an instrument flight?
58. Does the equipment in an aircraft effect the kind of flight which may be made in accordance with contact flight rules?
59. Is an airway traffic control station authorized to suspend or restrict contact flight operations at any airport in its control area? *YES*
60. May a representative of the civil aeronautics authority require the observance of higher weather minimums for contact flight at a control airport than those ordinarily prescribed?
61. What is the minimum ceiling for flight in accordance with contact flight rules in a control zone during the daytime, when there is no precipitation?
62. What is the minimum allowable ceiling for flight in accordance with contact flight rules in a control zone during the daytime when precipitation is occurring?
63. What is the minimum allowable ceiling for flight in accordance with contact flight rules in a control zone at night?

64. Unless permission has been obtained from a certificated airport control tower operator in the control zone, what is the minimum visibility at which flight in accordance with contact flight rules is permitted in a control zone day or night?
65. What is the minimum visibility at which flight in accordance with contact flight rules in a control zone during the daytime may be authorized by a certificated airport control tower operator?
66. What is the minimum visibility at which flight in accordance with contact flight rules in a control zone at night may be authorized by a certificated airport control tower operator?
67. Regardless of weather conditions, when shall a certificated control tower operator suspend contact flight operations within a control zone?
68. During the daylight hours, how far away from the base or from the top of a cloud formation must a pilot fly if he is making a flight in accordance with contact flight rules and precipitation is not occurring?
69. During the hours of darkness or at any time when precipitation is occurring how far away from the base or from the top of a cloud formation must a pilot fly if he is making a flight in accordance with contact flight rules?
70. If a pilot making a flight in accordance with contact flight rules wishes to fly up or down between clouds of a formation, how far must he keep horizontally from the clouds?
71. What is the minimum ceiling for flight in accordance with contact flight rules during daylight hours outside a control zone if no precipitation is occurring?
72. What is the minimum ceiling for flight in accordance with contact flight rules during daylight hours outside of a control zone when precipitation is occurring?
73. What is the minimum ceiling for flight in accordance with contact flight rules during the hours of darkness outside of a control zone?
74. What is the minimum visibility for flight in accordance with contact flight rules outside of a control zone during daylight hours?
75. What is the minimum visibility for flight in accordance with contact flight rules outside of a control zone during the hours of darkness?
76. What is the minimum visibility for flight in accordance with contact flight rules above 1000 feet above the ground outside of a control zone, day or night?
77. Should a control tower operator ordinarily authorize flight in accordance with contact flight rules when the ceiling is less than 800 feet?
78. Is a pilot making a flight in accordance with contact flight rules complying to the rules if he flies at an altitude of 1500 feet above the ground when the visibility is 2 miles?
79. Is a pilot making a flight in accordance with contact flight rules within the limits of a civil airway permitted to fly within 400 feet of the cloud base if precipitation is occurring?
80. May flight in accordance with flight rules be made on a civil airway at night if the visibility is 1 mile?
81. When must the navigation light of an airplane in flight be on?
82. What are two signals to be used by a pilot of an aircraft in distress, when practicable?
83. If a pilot of an aircraft is about to make a forced landing at an airport at night what signal should he give, when practicable?
84. Are acrobatics permitted over a congested area of any city or town?
85. Are acrobatics permitted over a civil airway if reasonable precautions are taken?
86. Are acrobatic maneuvers permitted in a control zone except for test?
- ~~What is the lowest~~
87. What is the lowest altitude above the ground at which an aircraft may be flown acrobatically?
88. What is the minimum ceiling under which an aircraft may be flown acrobatically?
89. What special precaution as to other traffic must a pilot take before beginning acrobatic maneuvers?
90. Must a person making an intentional parachute jump wear an auxiliary parachute?
91. What is the minimum altitude above the ground at which a person may make a training or demonstration parachute jump?

92. What is the highest wind in which a person may make a training or demonstration parachute jump?

Unless

93. Unless special equipment is used, how far from open water must a training or demonstration parachute jump be made?

94. Must a permit be secured for an air meet held on a civil airway?

95. Must a permit be secured for any air meet held outside of a civil airway if there is likelihood of endangering aircraft moving in interstate or foreign air commerce?

96. Who is held responsible for the proper policing of the air meet area within the airport? *PEOPLE - WHO - RUN - IT - GIVE - THE - MEET*

97. Is a pilot required to observe the air traffic rules in special circumstances when nonobservance would enable him to avoid immediate danger? *NO*

98. If a pilot fails to observe the air traffic rules in taking emergency action to avoid immediate danger, what report is he required to make?

99. Who may warm up an aircraft engine? What precautions must be taken?

100. Are you permitted to fly in formation with a licensed pilot if you have a valid license? *NO*

101. May you carry a passenger who has been drinking? *NO*

102. What does your license permit you to do?

103. What is the minimum altitude you may fly over a penal institution?

104. What light are required on a ship between sunset and sunrise?

105. When is it necessary to wear a parachute. *WHEN - YOU - ARE - STUNTING*

106. Give rules for landing and taking off from an airport at which an air meet is taking place?

107. Give six reasons for suspension or revocation of pilot certificate?

108. When is a control zone not round?

109. Give weight classifications into which planes are divided for the purpose of rating pilots?

110. Who may sign a log book? When are you required to show a log book?

111. Where should your certificate be kept? Are you required to show it?

112. Is a certificated aircraft required to carry an airworthiness certificate? Where must the same be kept? *YES - DIV - DIS - PLAN*

113. Give several reasons for suspension or revocation of airworthiness certificate

114. Where is a line inspection required? A periodic inspection?

115. Where must airplane and engine logs be kept?

116. What information is found on an airworthiness certificate?

117. How do you determine the number of passengers and the amount of baggage that may be carried in an aircraft with a variable payload?

118. What is the importance of the "never exceed a speed of _____" statement on an operations limit card carried in an aircraft?

119. If you are the owner of a certificated aircraft and sell it, (a) What must you do? (b) What must the purchaser do?

120. Outline what a private pilot may do under the terms of his certificate?

121. What are the requirements for the renewal of a private pilot's certificate?

122. State in detail, the regulations on landing, taking off, and right of way?

123. State all of the acrobatic flight rules?

124. Give in detail, all weather minimums for contact weather in and outside of control zone?

125. State in detail, the procedure necessary in case of accidents, fatal or otherwise, involving aircraft?

126. Define Acrobatics, Visibility, Airspeed, and Ground speed?

127. When must a certificated aircraft have an inspection? How Often? Who may make line inspections? Who is charged with the duty to have inspection made?

128. What is a control zone? A central airport? What visibility is required for an off civil airway daylight flight?

129. Define ceiling, name three kinds of weather, in what kind of weather may a solo pilot fly? Where may weather information for solo flying be obtained?

130. When is a student pilot's certificate required?

131. When may make line inspection, periodic inspection? List stops in line inspection?
132. What items are recorded in a pilots log and in an aircraft log?
133. Who is eligible to be a recorded owner of a certified aircraft?

NAVIGATION

1. Define "AIR NAVIGATION"?
2. Name four methods for air navigation?
3. Write the definition for "Dead Reckoning"?
4. Explain "track" and explain the relationship between track and ground speed?
5. Is airspeed calculated along compass heading, track or ground speed?
6. Are "course" and "heading" the same thing?
7. Why is dead reckoning so universally applied? Explain?
8. Explain the relationship between "true heading" and "track Angle"?
9. What kinds of special maps are published for air navigation?
10. Give the length in feet of (a) A statute mile; (b) a nautical mile?
11. Define map, Chart, prime meridian, meridian of longitude, longitude?
12. Define latitude, and equator?
13. Describe a mercator projection and explain the principal?
14. How are all bearing and courses measured? What is a "Rhumb line"?
15. Where on a pelyconic projection will you find the maximum distortion?
16. Define Isogonic line, and agonic line?
17. Define variation, deviation, and leeway?
18. Explain the need of a compass protractor?
19. Explain the need for consideration of "mean variation"?
20. Define bearing, and magnetic bearing?
21. How is variation east, variation west, deviation east, and deviation west illustrated?
22. What is the rule for applying compass error?
23. Define deviation and explain its cause?
24. Toward what point of the compass does East wind blow?
25. Explain drift and drift angle?
26. What is meant by "period" with respect to compass oscillation?
27. What is the effects of a magnetic storm upon the compass?
28. What is the "lubber ling" and why is it used.
29. Give instructions for compensating a magnetic compass?
30. What is the purpose of kerosene or alcohol in a magnetic compass?
31. Describe the action or effect of the northerly turning error?
32. What is the purpose of "compensating a compass"?
33. Where are compensating magnets placed in a compass?
34. How is the remaining deviation recorded after compensation?
35. What is the function of a turn indicator?
36. What is force vector?
37. What is determined first, the true course or the compass course?
38. Why is it wrong to fly the reciprocal of a compass course?
39. What is meant by "radius of action"?
40. What four things are determined in plotting the radius of action?
41. What is the reciprocal of 49° ?
42. An hour difference in time is equivalent to what change in degrees of longitude?
43. Your compass course is 274° , deviation $40^{\circ}W$, variation $3^{\circ}E$, what is your true-course?
44. What is an isogonic chart and what is it used for?
45. Compass course 74° , deviation $6^{\circ}E$, variation $6^{\circ}W$, What is the true course?
46. What is meant by swinging the compass?
47. Distinguish between true course, magnetic course, compasscourse?
48. Is it possible to be in a position on the earth where the magnetic variation is zero? Why?
49. What is deviation card?

50. What is a great circle course?
51. The compass course is 44° , variation 8° E, deviation 4° W, what is the true course
With a south wind add or subtract or correct for drift?
52. What is a ceasse compass rose and what is it used for?
53. How often should a deviation chart be checked?
54. Give the general rule for applying variation and deviation corrections?
55. What is drift? How do you correct for it?
56. The true course is 356° , variation 7° e, deviation 4° w, find the compass course?
57. Name two different types of compasses?
58. Is the distance between two lines of longitude one degree apart at the equator, the same as at latitude 45° north?
59. Given the true course 235° , variation 7° E, deviation 12° W find the compass course?
60. When in flight, how would you check your ground speed on a given course?
61. Does the compass needle ever point true north? When?
62. How could you know if the wind shifted while you were flying a compass course from one town to another?
63. Should the engine be running or stopped while compensating for deviation?
64. What is meant by radius of action of an aircraft?
65. Compass course 90° , magnetic course 100° true course 85° find the variation and deviation in degrees, and whether east or west?
66. True course 180° variation 15° W deviation 5° E ship cursing at 90 m.p.h. north wind at 27 m.p.h. what is the approximate ground speed, air speed, magnetic course, compass course?
67. What does 1/20,000 mean when used on a map?
68. What are the contour lines on a map?
69. True course is 90° variation 3° W deviation 6° W what is the compass course?
70. Compass course 93° variation 5° W deviation 5° W what is the true course?
71. True course 5° variation 7° E deviation 3° E what is the compass course?
72. How would you check periodically to determine whether or not you were on your course? *CHECK - P.R. ACFT - R.R. ETC.*
73. How is the time of flight figured between two points after the distance is known through scale measurement on the map, and the ground speed has been ascertained?
74. What is the correct order for solving wind drift problems?
75. What is a compass rose? Wind Rose?
76. What is the difference between course and track?
77. True course 75° airspeed 80 m.p.h. track 90° ground speed 99 m.p.h. find wind direction and velocity?
78. A military airplane is ordered to search as far as possible on a track of 75° true and return with a safety margin of fuel of 25%. Its endurance is 6 hours at an airspeed of 80 m.p.h. wind from 315° at 20 m.p.h. How far out could it travel?
79. Air speed 105 m.p.h. wind N.E. 45 m.p.h. true course 90° true course returning to point of departure from objective 270° fuel hours 4 maintain 25% reserve fuel Find: navigation radius, distance round trip, ground speed out, time to objective ground speed back time of return average ground speed for trip?
80. An airplane endurance 6 hours at 80 m.p.h. is ordered to search as far as possible on a track 255° and return and maintain 25% of its expendable fuel. Wind 315° at 20 m.p.h. Find: Time out? Turning point in miles? Time and distance returning?
81. An engine delivers 150 h.p. at sea level in standard air. What h.p. will it deliver at 6000 ft? This engine is not equipped with a supercharger.
82. Name all aids to navigation to be found on a Coast Geodetic Survey Sectional Aeronautical Chart?
83. How are the approximate populations of villages, towns and cities indicated on Coast and Geodetic Survey Sectional Aeronautical Charts?
84. Reproduce the symbol used on aeronautical charts for the several classifications of landing fields and airports?
85. What scale of miles is used on Coast and Geodetic Survey Sectional Aeronautical charts? What representative fraction?

METEOROLOGY

- ② 100%
- ③ Precipitation
- ④ Fog & stratus clouds
- ⑤ Any kind of dust hydrometeors
- ⑥ 35,000, 36,000 - 40,000, about 40,000
- ⑦ at night time the earth cools off the air near it, higher you go the warmer
- ⑧ Temperature & Pressure
- ⑨ Changing gas liquid to gas
- ⑩

86. If the wind is from the left, is the drift angle added to or subtracted from the compass course to remain on true course?

METEOROLOGY

1. Define hydrosphere, lithosphere, atmosphere, meteorology, weather, climate? *in water land air frequently weather & climate are changing conditions*
2. How great is the relative humidity when dew point is reached? *100%*
3. What forms when the dew point is reached in a temperature fall? *PRECIPITATION*
4. If a cloud were resting on the ground, what would you call it? *FOG STRATIS CLOUD*
5. What type of dust has an affinity for water vapor? *hygroscopic - volcanic ash*
6. Explain: troposphere, tropopause, stratosphere? *6000-50000 50,000*
7. What is an inversion of temperature? Explain? *WIDE-EARTH-COOLS-AIR-AROUND IT W.P.H. 15000-20000*
8. What are the basic causes of atmosphere motion? *TEMP. + PRESS. DIFF.*
9. Explain evaporation? *EVAPORATION LIQUID TO A GAS*
10. Why do water surfaces exert a relatively cooling influence upon the atmosphere during periods of sunshine? *due to amplitude of radiation and vaporization*
11. What is convection? *flowing mass by circulation, transfer of heat by motion of parts*
12. Explain three types of convection? *thermal, force and mixed*
13. What causes ranges of hills or mountains to be thunderstorm centers? *such as Denver*
14. Why can there be no such thing as an airpocket? *Complete ground level water*
15. Define cyclone, and anti-cyclone? *Cyclone low pressure, anti-cyclone high pressure*
16. In what general direction do "highs" and "lows" travel? *WEST TO EAST*
17. On which side of a low would you fly to have tail winds? *W.*
18. Does clear and pleasant weather accompany a high? *GENERALLY*
19. What is the name of the line which may be drawn through the barometric depression between two highs? *WINDY LINE*
20. Define isobar, isotherm? *Isobars are lines of equal barometric pressure at the same level. Isotherms are lines of equal temperature at the same level.*
21. What is the direct cause of the earth's changing seasons? *inclination of poles axis*
22. Why does the breeze due to thermal turbulence cease after sundown? *the convection ceases*
23. When side by side over which will the stronger up current be found during a period of sunshine over plowed ground or over a meadow? *PLOWED - CROPPED*
24. Although a down draft may be anticipated over a field of green grain if along side of a sandy area, in sunshine, would the condition be the same if the green grain were adjacent to a ~~large wooded area~~ large wooded area? *NO*
25. Why would a swamp adjacent to a landing field cause a pilot to undershoot a landing? *water makes cooling influence, down draft*
26. Why does thermal turbulence decrease with altitude? *gases get cool and it = 5*
27. Why is the air usually smoother over a large body of water than over land? *no wind front no big masses*
28. Explain convection, radiation and the conduction of heat? *convection contact*
29. What keeps the gases of the earth's atmosphere consistently mixed? *Convection*
30. Explain the principle of the mercurial barometer?
31. Explain gradient, lapse rate, adiabatic rate? *Convection*
32. What is actually meant by the term "falling barometer"? *app. of low pressure area.*
33. What is the indication of a rapidly falling barometer? *bad weather app. rain etc.*
34. What type of barometer is the pressure type of a low on a northerly course of flight? What is the object of passing a low on its right side?
35. What type of barometer is the pressure type altimeter? *aneroid*
36. How far from the earth's surface does the normal lapse rate prevail? *25,000 M.P. 5,000 ft*
37. If the temperature is 40° F. at the surface what will it be at 3,000 feet of latitude under normal conditions? *30°*
38. What are the meteorological elements in logical order which must be considered in a study of weather? *sun, temp, bar, wind, humidity, clouds and precipitation*
39. How far ahead is a line squall predictable with a weather map? *2 to 4 days*
40. *134* What may be the results of flying over mountains in thick weather if the altimeter is reading too high? Over cities? *run into mountains w/ flying low*
41. Why is it impossible to use an altimeter intelligently without knowledge of the terrain and of the weather map? Explain fully? *don't know how high the terrain your flying over and the pressure etc.*

59

90 jointure in air, amount of moisture in air, temp with length of time

78

Went vanishing feathers on the ground

61

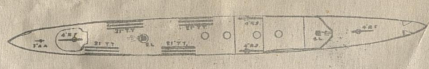
by pressure, low cent of damp air, stroke, orography, effect, vertical
element, thermal expansion, radiation, reports of transverse
multiplication in at diff. temp

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42. Would an altimeter show increase in altitude if there were no decrease in barometric pressure during a climb? Why? *no further up the pass.*
43. How much will the altimeter vary from correct per isobar crossed? *9 to 10 ft*
44. Do high and low pressure areas travel at the same speed in all seasons? *NO faster in winter*
45. What is the influence of a strong pressure gradient upon a wind. *increased velocity*
46. Explain the direct causes of winds? *pressure + temp.*
47. By what variations may the air speed indicator be made inaccurate? *density, altitude*
48. What is the Beaufort Scale? How do the late air maps show the wind velocities? *WEST*
49. From which direction does a West wind come? *WEST*
50. What type of convection is caused by a cold surface wind? *forced*
51. What causes a down draft on the lee side of a hill when winds blow? *mechanical convection*
52. Why are isobars aloft not parallel with surface isobars? *pressure variations*
53. If the wind is from the north at the surface what may be its direction at 4,000 of altitude? *any direction*
54. What is the difference between a squall and a gust? *gust short time, squall comes on*
55. How long may a line squall be? *within 100 miles*
56. In what portion of the North America Continent is a monsoon condition known? *FLORIDA CORNERS SE OF M.S.*
57. What condition shown on a weather map indicates tornado possibilities? *LOW PRESS. AREA*
58. Define relative humidity, absolute humidity, and dew point?
59. How much more water does saturated air at a temperature of 80° F. hold than when the air is saturated at 32°? *8 times. Certain limits.*
60. What prevents the freezing of clouds in freezing temperature? *heat of condensation*
61. If the temperature of both wet and dry bulbs are equal after vigorous whirling what is the relative humidity? *100%*
62. Is the ceiling the distance from the surface to the clouds or the distance from sea level to the clouds? *PT. of observation*
63. In which portion of the atmosphere are all clouds found? *troposphere*
64. Name and explain three processes of cloud formation? *impassure, advection, radiation*
65. Where is radiation fog most likely to form and what causes it? *WITZ*
66. Which type of fog forms only after sundown and which at any time? *RADIATION, FOG - WITZ*
67. What conditions make possible the prediction of fog or fog possibilities an hour or two ahead of its actual formation? *TEMP. DROPPING*
68. Explain the formation of advection fog? *Passing of warm moist air over a colder surface*
69. Is there any reason for being familiar with fog producing conditions in all localities flown over? *yes*
70. What would you anticipate if you saw a cloud take form ahead of you and in your line of flight, with the temperature at 30 F? *ice*
71. Describe the condition of the weather in a wind shift line? *front of storm, etc.*
72. What is a line squall? *front of storm, etc.*
73. A decrease of 1 inch of barometric pressure will cause what change of altitude reading on an altimeter at rest on the ground? *1000 ft*
74. Enumerate the ideal conditions for the formation of ice on an aircraft? *34R 26°*
75. Explain the formation of ice on an airplane flying through clouds during the winter? *Wash drop fans on plane and is chilled to supercool*
76. Name the basic types of clouds? describe each?
77. Name four processes of cloud formation? *upward convection, advection*
78. What atmospheric movement should be anticipated under the center and edge of a cumulus cloud? *updown wind*
79. Why is air smoother under a stratus cloud than under a cumulus? *horizontal turbulence*
80. Why is the air rougher in sunny weather especially in summer? *thermal convection*
81. In which season of the year do clouds travel fastest? slowest? *winter*
82. What sort of weather is indicated by detached or scattered clouds. *Fair*
83. What type of cloud formation precedes wet and stormy weather? *Cumulonimbus*
84. Why is it now advisable to try flying over the top of thunderstorms?
85. With continued and accelerated conditions into what will a cumulus cloud develop? *Cumulonimbus - thunderhead*
86. Describe the cumulus cloud? What type of convection forms it? *FORCE*
87. What type of cloud formation is associated with extremely rough air aloft? *cumulonimbus*
88. What type of cloud has a dark or smutty curtain extending from base to surface? *cumulonimbus*

Geo. Canary Jr.



NATIONALITY	U.S.	TYPE	D.D.	CLASS	FOUR-STACKERS	SERIAL NUMBER	343
OTHER SHIPS IN CLASS	SERIAL NO.	MASTS	STACKS	TURRETS	OTHER FEATURES		
DD 343 and below		STICK FORE STICK MAIN	4 RACKING	NONE			

RESTRICTED
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