SESSION 38: ATC AND HOLDING — MIXED SCENARIO: CLEARANCE THROUGH HOLD

1. At KAAA you phone for your clearance and copy it using CRAFT. The "C" element gives you the:

A. Climb gradient

B. Communication frequency

C. Clearance limit (cleared to KBBB)

D. Course to the first fix

2. The clearance ends with "released for departure, clearance void if not off by 1420, time now 1408." You must be airborne:

A. Exactly at 1420

B. Within 30 minutes

C. By 1420, within the next 12 minutes

D. By your destination ETA

3. If you cannot depart by 1420, you must:

A. Depart anyway and advise ATC after takeoff

B. Contact ATC to advise and obtain a new clearance and void time

C. Continue VFR until cruise altitude

D. Squawk 7700 and depart

4. After departing and contacting Center, you hear "radar contact." This means:

A. You must resume position reports

B. You have been identified on the controller's radar display

C. You must squawk standby

D. You should switch to guard frequency

5. Center issues "amend altitude, climb and maintain 11,000." This amendment:

A. Replaces your previous altitude assignment with a new one to climb to and hold

B. Authorizes a descent at your discretion

C. Cancels your route clearance

D. Is advisory only

6. Center then says "proceed direct DORBY, rest of route unchanged." You should:

A. Hold at DORBY

B. Navigate direct to DORBY, then resume the previously cleared route

C. Land at DORBY

D. Disregard the remaining route

7. Approaching a non-radar area, Center advises "radar service terminated, resume position reporting." You must now:

A. Cancel IFR

B. Squawk 1200

C. Climb to the MEA

D. Make position reports over compulsory reporting points

8. A compulsory reporting point on your en route chart is depicted as:

A. An open triangle

B. A circle with a dot

C. A diamond

D. A solid (filled) triangle

9. Your standard position report over a compulsory reporting point includes:

A. Identification, position, time, altitude, and the next fix with ETA

B. Identification and altitude only

C. The destination and fuel only

D. The next fix only

10. En route, you encounter severe turbulence and need to deviate from your assigned altitude immediately for safety. Under §91.3(b), you may:

A. Only deviate with prior ATC approval

B. Take no action without a co-pilot

C. Deviate to the extent required to meet the emergency, then advise ATC

D. Deviate only from the route, not the altitude

11. Shortly after, you lose two-way radio communication in IMC. Your first transponder action is to squawk:

A. 7700

B. 7500

C. 1200

D. 7600

12. After squawking 7600, your next step is to:

A. Attempt to re-establish communication by all available means

B. Begin an immediate descent

C. Cancel the IFR flight plan

D. Land at the nearest airport without further thought

13. Still in IMC, you apply §91.185(c). The route to fly follows AVE-F. Center's last instruction was "proceed direct DORBY." With no vectored or expected routing given, you fly:

A. The filed route immediately

B. Direct to the alternate

C. A heading toward the destination

D. The assigned route (direct DORBY), continuing per the flight plan beyond it

14. For altitude in the lost-comm IMC segment, you fly the highest of the MEA, the expected altitude, and the:

A. MOCA

B. MCA

C. OROCA

D. Assigned altitude

15. On the segment, the MEA is 9,000, your assigned altitude was 11,000, and you were told to expect 13,000 (the time has passed). You fly:

A. 9,000

B. 11,000

C. 13,000

D. 12,000

16. Your clearance limit is the BBBVOR, where the approach begins, and you were issued an EFC time of 1505. Holding there, with comms lost, you leave the holding fix:

A. Immediately upon arrival

B. At the EFC time, 1505

C. At your filed ETA

D. After two turns in the hold

17. The hold at BBBVOR is published on the approach chart. Because it is published, you:

A. Use left turns by default

B. Fly the published pattern unless ATC specified otherwise

C. Disregard the chart and use right turns

D. Request the full pattern from ATC

18. You arrive at BBBVOR on a heading that places you in the parallel entry sector. You should:

A. Turn to parallel the inbound course outbound on the non-holding side, then turn back to intercept inbound

B. Turn immediately toward the holding side

C. Fly a 360 over the fix

D. Use a direct entry instead

19. Holding at or below 14,000 feet, you time the inbound leg to be:

A. 1 minute

B. 2 minutes

C. 30 seconds

D. 1½ minutes

20. Your first inbound leg times at 1 minute 20 seconds (tailwind outbound). On the next circuit you:

A. Increase airspeed

B. Maintain the same outbound time

C. Shorten the outbound leg

D. Lengthen the outbound leg

21. Applying wind correction, with a 5-degree right crab needed inbound, your outbound leg correction is approximately:

A. 5 degrees right

B. No correction

C. 15 degrees in the opposite direction (left of the outbound heading)

D. 5 degrees left

22. Because you have an EFC time and lost comms, your fuel plan must ensure:

A. The tanks reach empty at the EFC time

B. Only the inbound legs consume fuel

C. Maximum airspeed in the hold

D. Sufficient reserves remain to complete the approach (or divert) after leaving the hold at the EFC

23. When you reach BBBVOR as your clearance limit at the EFC time with comms still lost, you should:

A. Hold indefinitely

B. Begin the approach at the appropriate time and complete it

C. Climb to the MEA and orbit

D. Divert to the alternate immediately

24. Throughout the lost-comm sequence, the purpose of the AVE-F route and highest-altitude rules is to:

A. Give you maximum flexibility

B. Make your path and altitude predictable so ATC can clear the airspace for you

C. Require you to land immediately

D. Replace your flight plan

25. Summarizing the flight, the DPE asks the unifying principle of Area III. The best answer:

A. Copy, read back, and comply with clearances; communicate per the radar/non-radar environment; exercise PIC authority in emergencies; and apply lost-comm and holding procedures precisely and predictably

B. The pilot may choose which clearances to accept

C. ATC bears all responsibility once airborne

D. Holding eliminates the need for clearances

ANSWER KEY & EXPLANATIONS — SESSION 38

1. C. Clearance limit — The CRAFT "C" gives the clearance limit (cleared to KBBB).

2. C. By 1420 — "Void if not off by 1420, time now 1408" means depart within the next 12 minutes, by 1420.

3. B. Advise/re-clear — If not off by the void time, contact ATC to advise and obtain a new clearance and void time.

4. B. Identified on radar — "Radar contact" means you have been identified on the controller's radar display.

5. A. New altitude to hold — "Amend altitude, climb and maintain 11,000" replaces the previous altitude with a new one to climb to and hold.

6. B. Direct then resume — "Proceed direct DORBY, rest of route unchanged" means navigate direct to DORBY, then resume the previously cleared route.

7. D. Resume position reports — "Radar service terminated, resume position reporting" requires position reports over compulsory reporting points.

8. D. Solid triangle — A compulsory reporting point is depicted as a solid (filled) triangle.

9. A. ID/position/time/alt/next — A standard position report includes identification, position, time, altitude, and the next fix with ETA.

10. C. Deviate then advise — Under §91.3(b), you may deviate to the extent required to meet the emergency, then advise ATC.

11. D. 7600 — The first transponder action on a comm failure is to squawk 7600.

12. A. Re-establish comms — After squawking 7600, attempt to re-establish communication by all available means.

13. D. Assigned route — With only an assigned route (direct DORBY) and no vectored/expected routing, fly the assigned route, continuing per the flight plan beyond it.

14. D. Assigned — The three altitudes compared (highest of) are MEA, expected, and assigned.

15. C. 13,000 — Highest of MEA 9,000, assigned 11,000, expected 13,000 is 13,000.

16. B. EFC 1505 — With comms lost and an EFC time, leave the holding fix at the EFC time, 1505.

17. B. Fly published — A published hold is flown as charted unless ATC specified otherwise.

18. A. Parallel entry — In the parallel sector, parallel the inbound course outbound on the non-holding side, then turn back to intercept inbound.

19. A. 1 minute — At or below 14,000 feet, time the inbound leg to 1 minute.

20. C. Shorten outbound — An inbound leg of 1:20 (tailwind outbound) means shortening the outbound leg next circuit.

21. C. ~15° opposite — A 5-degree right inbound crab yields about 15 degrees of correction in the opposite direction outbound.

22. D. Reserves remain — The fuel plan must ensure sufficient reserves remain to complete the approach (or divert) after leaving the hold at the EFC.

23. B. Begin/complete approach — At the clearance limit at the EFC time with comms lost, begin the approach at the appropriate time and complete it.

24. B. Predictable path — The AVE-F and highest-altitude rules make the path and altitude predictable so ATC can clear the airspace.

25. A. Copy/comply/authority/procedures — The unifying Area III principle is to copy/read back/comply with clearances, communicate per the environment, exercise PIC authority in emergencies, and apply lost-comm and holding procedures precisely and predictably.