

ACS AREA III — ATC CLEARANCES AND PROCEDURES

Sessions 29–38

Area III is where the instrument pilot enters into the structured conversation with air traffic control that defines IFR flight. Everything before this point — the planning, the weather, the aircraft — prepares you to operate inside a system where ATC issues instructions and you copy, read back, and comply with precision. This area covers that system: how clearances are constructed and copied, what departure and en route instructions mean and obligate, how the radar and non-radar environments differ, what authority you hold in an emergency, what to do when the radios go silent, and how to fly the holding patterns that the IFR structure routinely requires.

These ten sessions divide into two connected halves. Sessions 29 through 34 cover clearances and communications: the CRAFT format and clearance copying, departure procedures with void and release times, en route clearance amendments, the radar versus non-radar environment, the pilot-in-command emergency authority of §91.3, and the lost-communication procedures of §91.185. Sessions 35 through 37 cover holding in depth — standard and non-standard pattern geometry, the three entry types, and the timing, DME, wind correction, and EFC management that holding demands. Session 38 closes the area with a mixed scenario that threads a clearance through an en route amendment into a hold, the way a real flight and a real examiner connect them.

Two topics in this area deserve special attention because they are tested on virtually every instrument checkride and are consistently weak spots: lost communications and holding. The AVE-F route rule, the highest-altitude rule, and the holding entry determination must become automatic — not facts you reconstruct under pressure, but procedures you execute fluently. Work these sessions aloud, draw the holding entries by hand as you reason through them, and return to Chapters 7 and 8 wherever an answer does not come cleanly.

SESSION 29: ATC CLEARANCES — THE CRAFT ACRONYM AND CLEARANCE READBACK

1. The CRAFT acronym is used by pilots to:
 - A. Configure the autopilot for departure
 - B. Calculate the required fuel reserve
 - C. Determine the alternate airport
 - D. Organize and copy an IFR clearance in the order ATC delivers it

2. The "C" in CRAFT stands for:
 - A. Cleared to (the clearance limit — usually the destination)
 - B. Course to the first fix
 - C. Climb gradient required
 - D. Communication frequency for ground

3. The "R" in CRAFT represents:
 - A. Release time for departure
 - B. Route to be flown
 - C. Required climb rate

D. Radar identification code

4. The "A" in CRAFT refers to:

A. The assigned approach at the destination

B. The alternate airport

C. The altitude (initial and expected)

D. The aircraft identification

5. The "F" in CRAFT represents:

A. The fuel remaining requirement

B. The frequency for departure control

C. The final approach course

D. The flight plan activation time

6. The "T" in CRAFT stands for:

A. The transponder (squawk) code

B. The time enroute estimate

C. The takeoff clearance

D. The transition altitude

7. A clearance reads "Cleared to KXYZ airport, as filed, climb and maintain 3,000, expect 8,000 in ten minutes, departure 124.5, squawk 4271." The clearance limit is:

- A. KXYZ airport
- B. 8,000 feet
- C. The first en route fix
- D. The departure frequency

8. In the same clearance, "climb and maintain 3,000, expect 8,000 in ten minutes" tells the pilot:

- A. To climb directly to 8,000 immediately
- B. To maintain 3,000 for exactly ten minutes then climb
- C. That 8,000 is the clearance limit
- D. To maintain 3,000 now, anticipating a clearance to 8,000 in about ten minutes

9. The proper pilot response after copying a clearance is to:

- A. Acknowledge with "roger" only
- B. Read back the clearance, especially the altitude, heading, and transponder code
- C. Repeat only the destination
- D. Wait for ATC to ask for a readback

10. Reading back the clearance is important because it:

- A. Activates the flight plan in the system
- B. Allows ATC to confirm the pilot copied it correctly and catch any errors
- C. Replaces the need to set the transponder
- D. Cancels the previous VFR plan automatically

11. "Cleared as filed" means the route portion of the clearance is:

- A. The same as the route the pilot filed in the flight plan
- B. Direct to the destination regardless of the filed route
- C. Determined by the pilot after departure
- D. The published preferred route only

12. If a clearance differs from what the pilot filed (an amended route), the pilot should:

- A. Fly the filed route and disregard the amendment
- B. Depart and request clarification airborne
- C. Refuse the clearance and re-file
- D. Copy, read back, confirm understanding, and comply with the amended clearance

13. The "expect" altitude in a clearance becomes important if:

- A. Two-way radio communication is lost, since it factors into the lost-comm altitude rule
- B. The aircraft must descend for terrain

- C. The pilot wants to change the destination
- D. The transponder fails

14. A pilot copying a clearance at a towered airport typically receives it from:

- A. The destination tower
- B. Clearance delivery (or ground control)
- C. The center controller directly
- D. Flight Service only

15. A pilot who cannot copy a clearance fast enough should:

- A. Guess at the missing elements
- B. Depart and request it again airborne
- C. Ask ATC to "say again" or to read it more slowly
- D. Accept only the destination and ignore the rest

16. The transponder code assigned in the clearance is set:

- A. In the transponder before or shortly after receiving the clearance, as directed
- B. Only after reaching cruising altitude
- C. To 1200 until landing
- D. To 7700 for all IFR flights

17. A clearance that includes "fly heading 270, radar vectors to the VANES intersection" indicates:

- A. The pilot should navigate direct to VANES via GPS immediately
- B. The pilot should fly the filed route
- C. ATC will provide vectors, and the pilot flies the assigned heading until further instruction
- D. The pilot should enter a holding pattern at VANES

18. A "void time" attached to a clearance at a non-towered airport relates to which CRAFT consideration?

- A. The route element
- B. The altitude element
- C. The transponder element
- D. The frequency/departure element, alongside timing for departure

19. When reading back a clearance, the single most critical elements to confirm verbatim are:

- A. The destination name only
- B. The departure frequency only
- C. The route waypoints only
- D. The altitude assignments and any heading/transponder code

20. A clearance is best copied using:

- A. Memory alone for short clearances
- B. The autopilot's flight plan page
- C. A shorthand or the CRAFT format written down
- D. The moving map display

21. If ATC issues a clearance the pilot believes they cannot comply with, the pilot should:

- A. Advise ATC "unable" and state the limitation
- B. Accept it and attempt compliance regardless
- C. Read it back as issued and depart
- D. Squawk 7600

22. "Hold for release" in a clearance means the pilot:

- A. Must enter a holding pattern after departure
- B. Should hold short of the runway for traffic
- C. May not depart IFR until ATC issues a release
- D. Must hold the current altitude for ten minutes

23. The frequency element ("F") in CRAFT specifies:

- A. The ATIS frequency
- B. The departure (or contact) frequency to use after takeoff

- C. The tower frequency for landing
- D. The emergency frequency

24. A pilot who reads back an altitude incorrectly and is not corrected by ATC:

- A. Has satisfied the readback requirement regardless
- B. Should assume the original clearance still applies
- C. Bears responsibility, but the readback exists precisely so ATC can catch such errors
- D. Need not have read it back at all

25. The fundamental purpose of the CRAFT format and clearance readback is to:

- A. Replace the filed flight plan
- B. Eliminate the need for a transponder
- C. Determine the required fuel
- D. Ensure the pilot accurately receives, organizes, and confirms the IFR clearance

ANSWER KEY & EXPLANATIONS – SESSION 29

1. D. Organize/copy clearance — CRAFT organizes and copies an IFR clearance in the order ATC delivers it.

2. A. Cleared to (limit) — "C" is Cleared to — the clearance limit, usually the destination.

3. B. Route — "R" represents the route to be flown.
4. C. Altitude — "A" refers to the altitude (initial and expected).
5. B. Frequency — "F" represents the frequency for departure control.
6. A. Transponder code — "T" stands for the transponder (squawk) code.
7. A. KXYZ airport — The clearance limit is KXYZ airport ("cleared to KXYZ").
8. D. Maintain 3,000, expect 8,000 — "Climb and maintain 3,000, expect 8,000 in ten minutes" means maintain 3,000 now, anticipating a clearance to 8,000 in about ten minutes.
9. B. Read back — The proper response is to read back the clearance, especially the altitude, heading, and transponder code.
10. B. ATC confirms copy — Reading back lets ATC confirm the pilot copied it correctly and catch errors.
11. A. Same as filed — "Cleared as filed" means the route matches the filed flight plan route.
12. D. Copy/read back/comply — An amended route is copied, read back, confirmed, and complied with.
13. A. Lost-comm altitude — The "expect" altitude matters because it factors into the lost-communication altitude rule.

14. B. Clearance delivery/ground — At a towered airport the clearance is typically received from clearance delivery or ground control.

15. C. Say again/slower — A pilot who can't copy fast enough should ask ATC to "say again" or read it more slowly.

16. A. Set as directed — The assigned transponder code is set before or shortly after receiving the clearance, as directed.

17. C. Fly heading, expect vectors — "Fly heading 270, radar vectors to VANES" means ATC will vector, and the pilot flies the assigned heading until further instruction.

18. D. Frequency/timing element — A void time relates to the departure/timing aspect alongside the frequency element.

19. D. Altitude/heading/code — The most critical readback elements are the altitude assignments and any heading/transponder code.

20. C. Shorthand/CRAFT — A clearance is best copied using shorthand or the written CRAFT format.

21. A. Advise "unable" — If unable to comply, the pilot advises ATC "unable" and states the limitation.

22. C. May not depart until released — "Hold for release" means the pilot may not depart IFR until ATC issues a release.

23. B. Departure frequency — The "F" element specifies the departure (or contact) frequency to use after takeoff.

24. C. Pilot responsible; readback catches it — The pilot bears responsibility, but the readback exists precisely so ATC can catch such errors.

25. D. Accurately receive/confirm — The purpose of CRAFT and readback is to ensure the pilot accurately receives, organizes, and confirms the IFR clearance.