

Instrument Pilot Flight Instruction Lesson Plan

Air Traffic Control Clearances

Student: _____ Date: _____

Objectives:

Upon completion of this lesson, the student will:

- Be able copy and correctly readback air traffic control clearances in a timely manner, using standard phraseology.
- Be able to determine whether or not it is possible to comply with an ATC clearance.
- Set communications and navigation equipment based on ATC clearances.
- Be able to fly the airplane in compliance with ATC clearances.

Elements:

- ATC Clearances
 - Clearance limits and EFC times
 - Departure procedure and frequency
 - Route of flight
 - Altitude assignments and restrictions
 - Transponder code
 - Clearance void time
- Holding instructions
- Clearance readback
- Clearance shorthand notation
- Adherence to ATC clearances in flight

Schedule:

• Pre-lesson briefing	00:05
• Review ATC Clearances Ground Lesson	00:10
• File IFR flight plan for a short flight	00:05
• Preflight airplane	00:10
• Obtain and readback clearance	00:05
• Depart according to clearance received	00:05
• Fly route as prescribed by clearance and ATC instructions en-route	00:20
• Return to departure airport	00:20
• Post-lesson debriefing	00:10
Total:	01:30

Equipment:

- CRAFT – RVR Forms
- Appropriate Departure procedure, STARs and Approach charts.
- Appropriate IFR en-route charts.
- Airplane suitably equipped for IFR flight
- View limiting device

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Instructor Actions:

1. Pre-lesson briefing
 - Present lesson objective and outline of the lesson.
2. Review material from the ATC Clearances ground lesson:
 - Clearance Limit
 - Route of flight (including departure procedure)
 - Altitude (initial, final, crossing restrictions)
 - Departure Frequency
 - Transponder Code
 - Release time
 - Void time
 - Recall time
 - Shorthand notations for copying clearance information and explain the CRAFT – RVR form.
3. File (or simulate filing) IFR flight plan for a short flight.
 - Coach the student through the process of filing the flight plan as required
4. Preflight airplane.
 - Observe that the student performs the proper preflight checks of the instruments, navigation equipment and airplane systems appropriate for an IFR flight.
5. Obtain and readback clearance.
 - Observe that the student copies and reads the clearance back accurately and in a timely manner (real ATC clearance if on IFR flight plan or simulated clearance from the instructor).
 - Observe that the student sets the communications and navigation equipment appropriately based on the clearance received.
6. Depart according to clearance received.
 - Coach the student as necessary through the departure procedure.
7. Fly route as prescribed by clearance and ATC instructions en-route.
 - Coach as necessary.
 - If ATC issues new instructions while en-route, observe that the student correctly copies and reads back the instructions, then complies.
 - If on simulated clearance, instructor can issue ad-lib amendments to the clearance.
8. Return to departure airport.
 - Assuming the weather permits VFR flight, on the return flight, give the student holding instructions
 - Observe that the student copies and reads the holding instructions back correctly in a timely manner.
 - Observe that the student complies with the holding instructions.
 - Observe that the student selects the appropriate entry into the holding pattern.
9. Post Lesson Debriefing
 - Critique student's performance of tasks with constructive suggestions to improve technique.
 - Answer student questions.
 - Ask student questions to evaluate what was learned.
 - Explain what will be covered in the next lesson and assign reading material.

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Student: _____ Date: _____

Student Actions:

1. Pre-lesson briefing
 - Ask questions concerning previous lessons and/or this one.
2. Review material from the ATC Clearances ground lesson.
 - Ask questions related to the information contained in a standard ATC clearance.
3. File IFR flight plan for a short flight.
 - Student will plan the route, estimate the time en-route and file (or simulate filing) a flight plan with FSS.
4. Preflight airplane.
 - The student performs the proper preflight checks of the instruments, navigation equipment and airplane systems appropriate for an IFR flight.
5. Obtain and readback clearance.
 - Student copies and reads the clearance back accurately and in a timely manner (Clearance may be real if flight plan is filed or given by the instructor).
 - Observe that the student sets the communications and navigation equipment appropriately based on the clearance received.
6. Depart according to clearance received.
 - Student will depart in accordance with the clearance received.
7. Fly route as prescribed by clearance and ATC instructions en-route.
 - Student will fly the route as given in the clearance, or in accordance with subsequent instructions given by ATC (or simulated by the instructor).
8. Return to departure airport.
 - If the flight is being conducted under VFR, the student will copy, readback and comply with holding instructions given by the instructor.
 - Student selects the appropriate entry into the holding patterns.
9. Post-flight debriefing.
 - Ask questions about the lesson.

Completion Standards:

This lesson will be completed when the student is able to receive, copy and readback ATC clearances and holding instructions accurately in a timely manner, and is able to comply with those clearances.

Common Errors:

- Student misses parts of the clearance.
- Student fails to ask for clarification when parts of the clearance are not completely understood.
- Student fails to ask for an EFC time from a hold if one is not specified in the holding instruction.
- Student fails to fly the departure procedure or route as specified in the clearance.

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References:

- Instrument Flying Handbook (FAA-H-8083-15); Chapters 9 and 10
- INSTRUMENT PTS Area of Operation III Tasks A, B, C

Possible Review Questions:

Instructor gives student simulated clearances and makes sure he or she copies and reads them back correctly.