

Instrument Pilot Flight Instruction Lesson Plan

Holding Patterns

Student: _____ Date: _____

Objectives:

Upon completion of this lesson, the student will:

- Be able to fly standard and non-standard holding patterns in accordance with ATC clearances.
- Be able to determine the appropriate entry procedure for holding patterns.
- Be able to adjust the holding pattern to compensate for the effects of wind.

Elements:

- Holding instructions
- Clearance readback
- Clearance shorthand notation
- Holding pattern entry procedures
- Wind correction techniques

Schedule:

- | | |
|--|-------|
| • Pre-lesson briefing | 00:15 |
| • Preflight airplane | 00:10 |
| • Receive, copy and readback departure and route clearance from instructor | 00:05 |
| • Fly route as prescribed by clearance and simulated ATC instructions en-route | 00:15 |
| • Receive, copy and readback simulated ATC holding instructions | 00:05 |
| • Fly the holding pattern specified in the clearance | 00:10 |
| • Repeat for several different holding procedures | 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.
 - Describe appropriate entry procedures for holding patterns
 - Direct entry
 - Teardrop entry
 - Parallel entry
 - Describe standard (right hand turns) and non-standard (left-hand turns) holding patterns.
 - Describe procedures for compensating for wind.
 - Crabbing to compensate for crosswind components
 - Adjusting outbound leg time to achieve 1 minute inbound leg time
2. Preflight airplane.
 - Observe that the student performs the proper preflight checks of the instruments, navigation equipment and airplane systems appropriate for an IFR flight.
3. Obtain and readback clearance.
 - Instructor will give the student a departure and route clearance
 - Observe that the student copies and reads the clearance back accurately and in a timely manner.
 - Observe that the student sets the communications and navigation equipment appropriately based on the clearance received.
4. Fly route as prescribed by clearance and simulated ATC instructions en-route.
 - Coach as necessary
 - Issues new instruction while en-route, observe that the student correctly copies and reads back the instructions, then complies.
5. Receive, copy and readback simulated ATC holding instructions.
 - Instructor will give the student holding instructions.
 - Observe that the student copies and reads back the instruction correctly and in a timely manner.
 - Observe that the student sets radios and navigation equipment appropriately.
 - Observe that the student determines the correct entry procedure for the hold.
6. Fly the holding pattern specified in the clearance.
 - Coach as necessary.
7. 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. Preflight airplane.
 - The student performs the proper preflight checks of the instruments, navigation equipment and airplane systems appropriate for an IFR flight.
3. Obtain and readback clearance.
 - The student will copy and readback the departure and route clearance given by the instructor.
 - The student sets the communications and navigation equipment appropriately based on the clearance received.
4. Fly route as prescribed by clearance and simulated ATC instructions en-route.
 - Student will depart and fly the route in accordance with the clearance received.
5. Receive, copy and readback simulated ATC holding instructions.
 - Instructor will give the student holding instructions
 - Student copies and reads back the holding instructions given by the instructor correctly and in a timely manner.
 - Student sets radios and navigation equipment appropriately.
 - Student determines the correct entry procedure for the hold.
6. Fly the holding pattern specified in the clearance.
 - Student performs the correct entry procedure.
 - Student applies proper techniques to compensate for effects of wind.
7. 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 holding instructions.
- Determine the correct entry procedure for the specified holding pattern.
- Fly the holding pattern compensating for the effects of wind.

Common Errors:

- Student misinterprets the holding instruction.
- Student fails to ask for an EFC time if none is given..
- Student selects the wrong entry procedure for the hold.
- Student fails to correctly compensate for wind effects.

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References:

- Instrument Flying Handbook (FAA-H-8083-15); 10-10 – 10-13
- Instrument Procedure Handbook (FAA-H-8261-1A); 3-23 – 3-26
- Instrument PTS Area of Operation III Task C
- CFII Handouts; Holding Patterns

Possible Review Questions: