

Instrument Rating Airplane Single-Engine

Non Precision Instrument Approaches, Holding, and Circling Approaches

Scenario:

You are taking a flight to a famous restaurant located on an airport about 30 minutes away from your home airport. You have arranged to meet several old classmates from your high school to plan a class reunion. The weather is forecasted to be marginal VFR with a chance of IFR conditions near the time of your arrival. You will file and fly an IFR flight plan. The forecasted winds do not favor the runway that is aligned with the non-precision approach for your destination.

Lesson Objectives:

Holding will be introduced to the PT in this lesson. The PT should be able to describe the elements related to holding and be given the opportunity to practice entering and becoming established in the pattern. The effects of wind should be discussed as well as the importance of maintaining orientation in the pattern. In addition to holding, circling approaches will be introduced to the PT. The PT should be able to describe the differences between flying the straight-in approach and flying the circling approach. The lesson also includes the experience of executing a missed approach during a circling maneuver. It is important that the PT realize that they may be forced to abandon an approach and go missed at any point prior to landing. Along with the tasks introduced, the PT will also have another opportunity to practice recovering from unusual flight attitudes.

Pre-Briefing:

The instructor will discuss the objective of the lesson and determine whether the student is adequately prepared for the activity. Each line item will be briefly covered and the student should have a clear understanding of how the training activity will be conducted and what standards will be expected of them.

Completion Standards:

This lesson will be complete when the student can demonstrate the maneuvers and procedures listed below to the performance level indicated and within the standards listed in the Instrument Rating Practical Test Standard for Airplane

IR-ASE Non-Precision Approaches, Holding Desired Outcome Grade Sheet			Task Grades				SRM Grades	
			Not Observed	Describe	Explain	Practice	Perform	Explain
Scenario Activities	Task	Desired Performance						
Preflight Preparation	Weather Information							
	Flight Planning							
	SRM							
Preflight Procedures	Aircraft Systems Related to IFR Operations							
	Aircraft Flight Instruments and Navigation Equipment							
	Instrument Cockpit Check							
	SRM							
Air Traffic Control Clearances and Procedures	Air Traffic Control Clearances							
	Compliance with Departure, En Route, and Arrival Procedures and Clearances							
	Holding Procedures							
	SRM							
Navigation Systems	Intercepting and Tracking Navigational Systems							
	SRM							
Automation Management	Avionics Programming and Operation							
	GPS Programming and Operation							
	Autopilot Programming and Operation							
	SRM							
Instrument Approach Procedures	Non-precision Approach							
	Landing from a Straight-In or Circling Approach							
	Circling Approach							
	Missed Approach							
	SRM							
Post-flight Procedures	Checking Instruments and Equipment							
	SRM							

De-Briefing:

Solicit a self-critique from the student about their personal performance by having them grade their performance based on the desired outcomes for the flight. Compare the student's self evaluation to your own and discuss why you either agreed or disagreed with the student's assessment. Use this information to direct your analysis of their flight. Additionally, discuss the role SRM played in the training activity and why it is critical to always consider how a flight or a situation could have been better managed to achieve the optimal outcome. Provide guidance on what the tasks and objectives will be for the next training activity and how they should prepare for it

Notes to the Instructor:

After departure, give a weather report that indicates the weather is getting worse, requiring all arriving airplanes to fly an instrument approach. This will set up the need for you to enter a holding pattern while waiting your turn for the approach.

During the introduction to holding procedures, make sure the PT can describe the procedures required to enter and become established and discuss why those procedures are used. At random points in the holding pattern, ask the PT to identify their location in reference to the fix. Have the PT describe how the wind can affect both the timing of the legs and the headings flown outbound and inbound.

Prior to shooting the first approach, have the PT brief the approach and have them describe what the circling maneuver should consist of and what the procedure will be if a missed approach becomes necessary.

Have the PT execute a missed approach from the first attempt to circle by simulating flying into a cloud during the maneuver. Attempt the approach again and this time, have the PT land after completing the circling maneuver.

After landing, debrief the first leg of the flight and then return to the home airport. Have the PT file the flight plan and get the clearance with as little assistance from you as possible.

Have the PT enter a holding pattern prior to flying the non-precision approach at the home airport. This time, the landing should be from a straight-in approach.

Continually reinforce the PT's use of SRM throughout the flight. At appropriate moments, have the PT assess the situation for you and inform you of their next two intentions.