

As defined in Chapter 5, SBT is a training method that uses a highly structured script of real world experiences to address aviation training objectives in an operational environment. Such training can include initial training, transition training, upgrade training, recurrent training, and special training. Since humans develop cognitive skills through active interaction with the world, an effective aviation instructor uses the maneuver- or procedure-based approach but presents the objectives in a scenario situation.

Although some flight instructors have used the SBT approach as a teaching method for many years, the current emphasis on SBT in aviation training reflects education research that shows learning is more effective when participants are actively involved in the learning process.

Single-Pilot Resource Management (SRM) requires the learner or transitioning pilot to practice the decision-making process in real-world situations. It combines traditional task and maneuver-based training with SBT to enhance ADM, risk management, and SRM skills without compromising basic aeronautical skills. Instead of training pilots to pass practical tests, this program focuses on expertly managed real-world challenges.

## **Duties, Responsibilities, and Authority of the Aviation Instructor**

The duties, responsibilities, and authority of the aviation instructor include the following:

1. Orient new learners to the SBT approach.
2. Help the learner become a confident planner and a critical self-evaluator of performance.
3. Help the learner understand the knowledge requirements present in real world applications.
4. Diagnose learning difficulties and help the individual overcome them.
5. Evaluate learner progress and maintain appropriate records.
6. Provide continuous review of learning.

The aviation instructor is the key to the success of SBT. Remember, the overall learning objective is for the learner to be ready to exercise sound judgment and make good decisions. For example, the flight instructor should be ready to turn the responsibility for planning and execution of the flight over to the learner as soon as possible. The flight instructor continues to demonstrate and instruct skill maneuvers in the traditional manner; but, when the learner begins to make decisions, the flight instructor should revert to the role of mentor and learning facilitator.

## **SBT Lesson Plan**

The SBT lesson plan differs from the traditional lesson plan. *[Figure 7-7]* In this example, the instructor pilot tells the learner to plan for arrival at a specific nontowered airport. The planning should take into consideration the possible wind conditions, arrival paths, airport information and communication procedures, available runways, recommended traffic patterns, courses of action, and preparation for unexpected situations. Upon arrival at the airport, the learner makes decisions (with guidance and feedback, as necessary) to safely enter and fly the traffic pattern. This is followed by a discussion of what was done, why it was done, the consequences, other possible courses of action, and how it applies to other airports. In contrast to the learner who trained under the traditional lesson plan, the learner who trains under the SBT format is not only capable of a specific flight maneuver, he or she is now capable of detailing a safe arrival at any nontowered airport in a variety of wind condition.

## **Pre-Scenario Planning**

For SBT instruction to be effective, it is vital that the aviation instructor and learner establish the following information:

Flight scenario:

- Scenario destination(s)
- Desired learning outcomes
- Desired level of learner performance
- Possible inflight scenario changes

Nonflight scenario:

- Narrative of the task goal
- Desired learning outcomes
- Desired level of learner performance
- Possible scenario changes