



Figure 5-5. Examples of Airman Certification Standards.

As discussed in Chapter 3, The Learning Process, humans develop cognitive skills through active interaction with the world. This concept has led to the adoption of scenario-based training in many fields, including aviation. An effective aviation instructor uses the maneuver-based approach of the ACS but presents the objectives in a scenario situation.

It has been found that flight learners using SBT methods demonstrate flying skills equal to or better than those trained under the maneuver-based approach only. Of even more significance is that the same data also suggest that SBT learners demonstrate better decision-making skills than maneuver-based learners—most likely because their training occurred while performing realistic flight maneuvers and not artificial maneuvers designed only for teaching that maneuver.

The incorporation of SBT as part of the lesson is discussed in more detail later in this chapter, as well as in Chapter 7, Planning Instructional Activity.

Decision-Based Objectives

The design and use of decision-based objectives specifically develops pilot judgment and ADM skills. Improper pilot decisions cause a significant percentage of all accidents, and the majority of fatal accidents in aircraft. Decision-based objectives facilitate a higher level of learning and application. By using dynamic and meaningful scenarios, the instructor teaches the learner how to gather information and make informed, safe, and timely decisions.

Decision-based training is not a new concept. Experienced instructors have been using scenarios that require dynamic problem solving to teach cross-country operations, emergency procedures, and other flight skills for years.

Decision-based learning objectives and the use of flight training scenarios do not preclude traditional maneuver-based training. Rather, flight maneuvers are integrated into the flight training scenarios and conducted as they would occur in the real-world. Those maneuvers requiring repetition may still be taught during concentrated settings. However, once they are learned, they are integrated into realistic and dynamic flight situations.

Decision-based objectives are also important for the aviation instructor planning AMT training. An AMT uses ADM and risk management skills during the repair and maintenance of aircraft.

Other Uses of Training Objectives

Performance-based and decision-based objectives help an instructor design a complete lesson plan. An instructor can use the standards of assessment, objectives, conditions, and criteria to fashion many of the details on the lesson plan. For example, many of the objective components may be used to determine the elements of the lesson and the schedule of events. The equipment necessary and the instructor and learner actions anticipated during the lesson have also been specified. By listing the criteria for the training objectives, the instructor has already established the completion standards normally included as part of the lesson plan.

Use of training objectives also provides the learner with a better understanding of the big picture, as well as knowledge of what is expected. This overview can alleviate a significant source of uncertainty and frustration on the part of the learner.