

Scenario-Based Training Toolbox (continued – sheet 2)

Modern Scenario-Based Training and the new 3P procedure for Pilot Training

Scenario-Based Training (SBT)- Training systems that use a real-world experiences to address flight-training objectives in an operational environment. Such training may include initial, transition, upgrade, recurrent, or specialized training.

This is a new approach to GA flight training that will be integrated into this Pilot Training system. It embraces concepts central to system safety. These include risk management, aeronautical decision-making (ADM), situational awareness, and single-pilot resource management. Instead of treating each element as a separate or stand-alone lesson, scenario-based training will be used to efficiently integrate these important concepts into instructional exercises.

Scenario-based training bridges the gap between how pilots are typically trained and how they fly in the real world.

Scenario-based training methodology: The instructor will integrate two or more of the identified hazards into a scenario “situation” inside each lesson plan. The lesson plans will be expanded to incorporate more real life cross-country flight operations. The choice of hazards will be made so as to realistically highlight risks likely encountered under similar circumstances. This will force the student to use both mechanical and cognitive skills in a dynamic environment- one that contains the distractions, challenges, and potential hazards found in a real life flight mission.

The Pilot’s Handbook of Aeronautical Knowledge Chapter 17 explains numerous methods of ADM.

The new PAVE checklist (Pilot, Aircraft, enVironment, External pressures), which is part of the 3P decision making process will be used as the basis for determining hazards for setting up scenario situations. It is in the first step of the ADM 3P process.

The new FAA 3P approach, in place of the classic DECIDE model will be presented as an option to the DECIDE model as a checklist for system safety as presented below. This is also covered in greater detail in the FAA “Pilots Handbook of Aeronautical Knowledge” Chapter 17:

1. Perceive hazards by defining problems that can create risks with the **PAVE** checklist:
(situational awareness checklist where pilot maintains accurate perception of elements)
 - o **PILOT** -- Experience, recency, currency, physical and emotional condition.
 - o **AIRCRAFT** -- Fuel reserves, airworthiness, aircraft performance, systems.
 - o **ENVIRONMENT** -- Airports, weather, runways, lighting, terrain, visibility, passenger.
 - o **EXTERNAL PRESSURES** -- Allowance for delays or diversions, alternate plans, personal equipment, time and destination commitments.
2. Process hazards by using the **CARE** model:
 - o **CONSEQUENCES** -- Evaluate the consequences (risks) that could arise.
 - o **ALTERNATIVES** -- Continuously evaluate all available options and alternatives.
 - o **REALITY** -- Acknowledge and address the reality of situation and avoid wishful thinking.
 - o **EXTERNAL PRESSURES** -- Be mindful of external pressures, especially tendencies toward get home-it is.
3. Perform risk management, perform the task, and evaluate outcome using the **TEAM** approach
 - o **TRANSFER** -- Should this risk decision be transferred to someone else (an air traffic controller, instructor, friend, family member, significant other, etc.)?
 - o **ELIMINATE** -- Is there a way to eliminate the hazard?
 - o **ACCEPT** -- Do the benefits of accepting risk outweigh the costs?
 - o **MITIGATE** -- What can be done to mitigate the risks of chosen course of action?