

Scenario-based Training Toolbox (continued – sheet 6)

Second P - **Process** hazards by using the **CARE** model:

- **CONSEQUENCES** -- Evaluate the consequences (risks) that could arise.
- **ALTERNATIVES** -- Continuously evaluate all available options and alternatives.
- **REALITY** -- Acknowledge and address the reality of situation and avoid wishful thinking.
- **EXTERNAL PRESSURES** -- Be mindful of external pressures, especially tendencies toward get home-it is.

CONSEQUENCES Evaluation Checklist - Process Hazards and Asses Degree of Risk

PILOT

Experience: The more overall recency and currency the pilot has in the type/particular aircraft, the less the risk for the flight. Familiarity with systems and the flight mission also decreases risk. The lack of experience with these items increases the risk of an accident.

Physical and emotional condition: The pilot's current condition has a significant effect on risk and is a large factor in safety. Physical and mental fitness to fly should be good. Any deficient areas increase the risk of an accident.

AIRCRAFT

Use/Situation: Greater familiarity, known airworthiness condition, and professional rental reduce overall hazards and risk.

Unknown, borrowed, or unique aircraft for flight would increase hazard and risk.

System Failures: Engine, structural, and primary controls are major hazards and create serious and high risk. Communications, flaps, and electrical present hazards but risks can be reduced if appropriate steps are taken.

Fuel: Low fuel reserves or contamination is a significant hazard leading to engine failure, which can create medium to high risk. Type/grade hazard can be more easily evaluated to determine risk.

Performance: High weight, high-density altitude, or tailwinds are hazards, especially if you have more than one of these items at a time, increasing risks for all phases of flight. Takeoff distance, climb rate, climb angle, and increased speeds all are results of low-performance factors.

Systems: Modern systems with proficiency of operation reduce hazards and risks. Reliance on one system only increases hazards. Being unfamiliar or having minimum time with required systems increases hazards and risk.

Airworthiness: An aircraft with the required currency documents assures the aircraft is qualified to be legally flown. Out-of-date or unknown condition of the aircraft increase risk.

ENVIRONMENT

Airport: Left-hand, familiar, rectangular airport patterns and towers are best and present minimal hazards. Different, unfamiliar, alternate, non-towered airports or straight-in approaches add hazards to all pilots in the pattern, with smaller risks for experienced pilots. For new pilots, these conditions can add hazards that can escalate into higher risks.

Runway: Short field, narrow, dirt, wet, ice, sloping, closed, unfamiliar, deep valley, on a mesa, in a congested area, crosswinds, and bounced landing all increase hazards and risks. Go-arounds can generally decrease the risk for experienced pilots.

Weather: Low pressure, cold fronts, upper winds, surface winds, unstable air, inversions, fog and low ceilings increase hazards. Calm weather with good forecast reduces risk.

Visibility: Low lighting, hazy sky, and/or obscured vision from some type of windshield distortion increase hazards and risks. Flying within the three-mile visibility requirement of the VFR limitation for sport pilots assures good visibility and must be maintained for legal and safety reasons.

Terrain: Flat lands generally offer less hazards than mountains because of less turbulence, if you fly above all obstructions, and they provide more predictable landing areas. Flying above mountains, a blanket of trees, or open water provides more hazards and increases risks because of the severe conditions of an emergency landing

Passenger: A passenger can reduce risks by watching for other aircraft and participating in the flight process. Passengers can increase risk by increasing the pilot's workload and creating distractions for the pilot.

EXTERNAL PRESSURES

Time: Being pressured to meet time and destination commitments for any reason increases the likelihood of pressing on, which increases hazards and risks.