Instruction that integrates Single-Pilot Resource Management into flight training teaches aspiring pilots how to be more aware of potential risks in flying, how to identify those risks clearly, and how to manage them successfully. The importance of integrating available resources and learning effective SRM skills cannot be overemphasized. Ignoring safety issues can have fatal results.

Risk Management

Risk management is a formalized way of dealing with hazards. It is the logical process of weighing the potential cost of risks from hazards against the possible benefits of allowing those risks from hazards to stand unmitigated. It is a decision-making process designed to identify hazards systematically, assess the degree of risk, and determine the best course of action. Once risks are identified, they must be assessed. The risk assessment determines the degree of risk (negligible, low, medium, or high) and whether the degree of risk is worth the outcome of the planned activity. If the degree of risk is "acceptable," the planned activity may then be undertaken. Once the planned activity is started, consideration must then be given whether to continue. Pilots must have preplanned, viable alternatives available in the event the original flight cannot be accomplished as planned.

Two defining elements of risk management are hazard and risk.

- A hazard is a present condition, event, object, or circumstance that could lead to or contribute to an unplanned or undesired event, such as an accident. It is a source of danger. For example, binding in the antitorque pedals represents a hazard.
- Risk is the future impact of a hazard that is not controlled or eliminated. It is the possibility of loss or injury. The level of risk is measured by the number of people or resources affected (exposure), the extent of possible loss (severity), and the likelihood of loss (probability).

A hazard can be a real or perceived condition, event, or circumstance that a pilot encounters. Learning how to identify hazards, assess the degree of risk they pose, and determine the best course of action is an important element of a safe flight.

Four Risk Elements

During each flight, decisions must be made regarding events that involve interactions between the four risk elements—the PIC, the aircraft, the environment, and the operation. The decision-making process involves an evaluation of each of these risk elements to achieve an accurate perception of the flight situation. *[Figure 13-5]*

One of the most important decisions that a PIC must make is the go/no-go decision. Evaluating each of these risk elements can help a pilot decide whether a flight should be conducted or continued. In the following situations, the four risk elements and how they affect decision-making are evaluated.

Pilot—A pilot must continually make decisions about personal competency, condition of health, mental and emotional state, level of fatigue, and many other variables. A situation to consider: a pilot is called early in the morning to make a long flight. With only a few hours of sleep and congestion that indicates the possible onset of a cold, is that pilot safe to fly?

Aircraft—A pilot frequently bases decisions to fly on

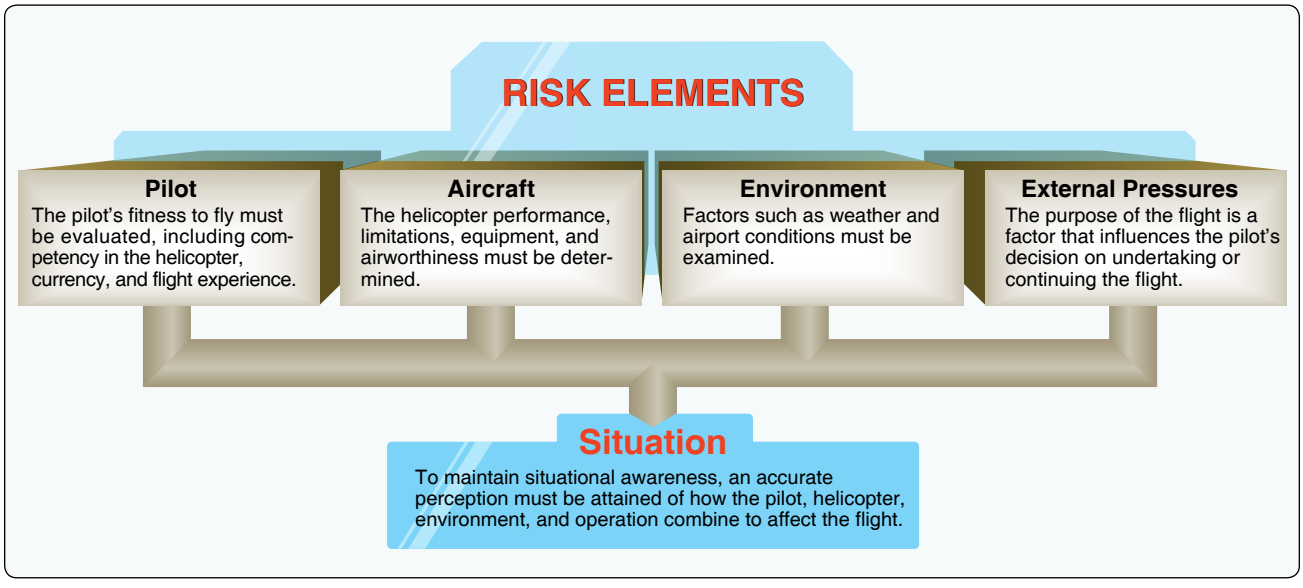

Figure 13-5. *Risk elements to evaluate in decision-making.*