There are many different types of clearing procedures. Most are centered around the use of clearing turns. Some pilot training programs have hard-and-fast rules, such as requiring two 90° turns in opposite directions before executing any training maneuver. Other types of clearing procedures may be developed by individual flight instructors. Whatever the preferred method, the flight instructor should teach the beginning student an effective clearing procedure and require its use. The student pilot should execute the appropriate clearing procedure before all turns and before executing any training maneuver. Proper clearing procedures, combined with proper visual scanning techniques, are the most effective strategy for collision avoidance.

Runway Incursion Avoidance

A runway incursion is any occurrence at an airport involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in a loss of separation with an aircraft taking off, landing, or intending to land. The three major areas contributing to runway incursions are:

- Communications,
- Airport knowledge, and
- Flight deck procedures for maintaining orientation.

Taxi operations require constant vigilance by the pilot and can be assisted by the passenger. This is especially true during flight training operations. Both the student pilot and the flight instructor need to be continually aware of the movement and location of other aircraft and ground vehicles on the airport movement area. Many flight training activities are conducted at nontowered airports. The absence of an operating airport control tower creates a need for increased vigilance on the part of pilots operating at those airports.

Planning, clear communications, and enhanced situational awareness during airport surface operations will reduce the potential for surface incidents. Safe aircraft operations can be accomplished and incidents eliminated if the pilot is properly trained from the outset and, throughout his or her flying career, accomplishes standard taxi operating procedures and practices. This requires the development of the formalized teaching of safe operating practices during taxi operations.

Positive Transfer of Controls

During flight training, there must always be a clear understanding between the student and flight instructor of who has control of the aircraft. Prior to any dual training flight, the instructor should conduct a briefing that includes the procedure for the exchange of flight controls. The following three-step process for the exchange of flight controls is highly recommended.

When a flight instructor wishes the student to take control of the aircraft, he or she should say to the student, "You have the flight controls." The student should acknowledge immediately by saying, "I have the flight controls." The flight instructor confirms by again saying, "You have the flight controls." Part of the procedure should be a visual check to ensure that the other person actually has the flight controls. When returning the controls to the flight instructor, the student should follow the same procedure the instructor used when giving control to the student. The student should stay on the controls until the instructor says: "I have the flight controls." There should never be any doubt regarding who is flying the WSC aircraft. Numerous accidents have occurred due to a lack of communication or misunderstanding regarding who actually had control of the aircraft, particularly between student and flight instructor. Establishing the positive transfer of controls procedure during initial training will ensure the formation of a very beneficial habit pattern.

Aeronautical Decision-Making (ADM)

A PIC's attitude or mindset must always be alert in order to maintain the safety of the aircraft, passengers, and the general public on the ground. To accomplish sound aeronautical decision-making (ADM), a pilot must be aware of his or her limitations and well-being (physical and psychological health), even before beginning the first preflight routine. While technology is constantly improving equipment and strengthening materials, safe flight comes down to the decisions made by the human pilot prior to and during flight.

The well-being of the pilot is the starting point for the decision-making process that occurs while in control of the aircraft. Just as physical fatigue and illness directly affects a pilot's judgment, so too will attitude management, stress management, risk management, personality tendencies, and situational awareness. Hence, it is the awareness of human factors and the knowledge of the related corrective action that not only improves the safety of operating a WSC aircraft, but also enhances the joy of flying. *[Figure 1-18]*

A good starting point is the Pilot's Handbook of Aeronautical Knowledge (FAA-H-8083-25), which explains the decision-making process, resource management, situational awareness, pilot error, stress management, risk management techniques, and hazardous attitude antidotes. After reading and understanding those subjects, it should be understood that the scenarios presented are generally for more complex airplanes, but the thought process and results are the same for all aircraft. The information is not duplicated but the