



avoidance of alarming occurrences or situations will rapidly ease the student's mind. This is true of all flight students, but special handling by the instructor may be required for students who are obviously anxious or uncomfortable.

POSITIVE EXCHANGE OF FLIGHT CONTROLS

Positive exchange of flight controls is an integral part of flight training. It is especially critical during the telling-and-doing technique of flight instruction. Due to the importance of this subject, the following discussion provides guidance for all pilots, especially student pilots, flight instructors, and pilot examiners, on the recommended procedure to use for the positive exchange of flight controls between pilots when operating an aircraft.

BACKGROUND

Incident/accident statistics indicate a need to place additional emphasis on the exchange of control of an aircraft by pilots. Numerous accidents have occurred due to a lack of communication or misunderstanding as to who actually had control of the aircraft, particularly between students and flight instructors. Establishing the following procedure during the initial training of students will ensure the formation of a habit pattern that should stay with them throughout their flying careers. They will be more likely to relinquish control willingly and promptly when instructed to do so during flight training.

PROCEDURES

During flight training, there must always be a clear understanding between students and flight instructors of who has control of the aircraft. Prior to flight, a briefing should be conducted that includes the procedure for the exchange of flight controls. A positive three-step process in the exchange of flight controls between pilots is a proven procedure and one that is strongly recommended. When an instructor is teaching a maneuver to a student, the instructor will normally demonstrate the maneuver first, then have the student follow along on the controls during a demonstration and, finally, the student will perform the maneuver with the instructor following along on the controls. [Figure 9-4]

Flight instructors should always guard the controls and be prepared to take control of the aircraft. When necessary, the instructor should take the controls and calmly announce, "I have the flight controls." If an instructor allows a student to remain on the controls, the instructor may not

have full and effective control of the aircraft. Anxious students can be incredibly strong and usually exhibit reactions inappropriate to the situation. If a recovery is necessary, there is absolutely nothing to be gained by having the student on the controls and having to fight for control of the aircraft.

Students should never be allowed to exceed the flight instructor's limits. Flight instructors should not exceed their own ability to perceive a problem, decide upon a course of action, and physically react within their ability to fly the aircraft.

USE OF DISTRACTIONS

National Transportation Safety Board (NTSB) statistics reveal that most stall/spin accidents occurred when the pilot's attention was diverted from the primary task of flying the aircraft. Sixty percent of stall/spin accidents occurred during takeoff and landing, and twenty percent were preceded by engine failure. Preoccupation inside or outside the cockpit while changing aircraft configuration or trim, maneuvering to avoid other traffic or clearing hazardous obstacles during takeoff and climb could create a potential stall/spin situation.

The intentional practice of stalls and spins seldom resulted in an accident. The real danger was inadvertent stalls induced by distractions during routine flight situations.

Pilots at all skill levels should be aware of the increased risk of entering into an inadvertent stall or spin while performing tasks that are secondary to controlling the aircraft. The FAA has also established a policy for use of certain distractions on practical tests for pilot certification. The purpose is to determine that applicants possess the skills required to cope with distractions while maintaining the degree of aircraft control required for safe flight. The most effective training is the simulation of scenarios that can lead to inadvertent stalls by creating distractions while the student is practicing certain maneuvers.

The instructor should tell the student to divide his/her attention between the distracting task and maintaining control of the aircraft. The following are examples of distractions that can be used for this training:

1. Drop a pencil. Ask the student to pick it up.

