If a yaw string is attached to the airplane at the time of a V_{MC} demonstration, it is noted that V_{MC} occurs under conditions of sideslip. V_{MC} was not determined under conditions of zero sideslip during aircraft certification and zero sideslip is not part of a V_{MC} demonstration for pilot certification.

To review, there are two different sets of bank angles used in OEI flight.

1. To maintain directional control of a multiengine airplane suffering an engine failure at low speeds (such as climb), momentarily bank at least 5° and a maximum of 10° towards the operative engine as the pitch attitude for V_{YSE} is set. This maneuver should be instinctive to the proficient multiengine pilot and take only 1 to 2 seconds to attain. It is held just long enough to assure directional control as the pitch attitude for V_{YSE} is assumed.
2. To obtain the best climb performance, the airplane must be flown at V_{YSE} and zero sideslip with the failed engine feathered and maximum available power from the operating engine. Zero sideslip is approximately 2° of bank toward the operating engine and a one-third to one-half ball deflection also toward the operating engine. The precise bank angle and ball position varies somewhat with make and model and power available. If above the airplane's single-engine ceiling, this attitude and configuration results in the minimum rate of sink.

In OEI flight at low altitudes and airspeeds such as the initial climb after takeoff, pilots must operate the airplane so as to guard against the three major accident factors: (1) loss of directional control, (2) loss of performance, and (3) loss of flying speed. All have equal potential to be lethal. Loss of flying speed is not a factor, however, when the airplane is operated with due regard for directional control and performance.

Slow Flight

There is nothing unusual about maneuvering during slow flight in a multiengine airplane. Slow flight may be conducted in straight-and-level flight, turns, climbs, or descents. It can also be conducted in the clean configuration, landing configuration, or at any other combination of landing gear and flaps. Slow flight in a multiengine airplane should be conducted so the maneuver can be completed no lower than 3,000 feet AGL or higher if recommended by the manufacturer. In all cases, practicing slow flight should be conducted at an adequate height above the ground for recovery should the airplane inadvertently stall.

Pilots should closely monitor cylinder head and oil temperatures during slow flight. Some high performance multiengine airplanes tend to heat up fairly quickly under some conditions of slow flight, particularly in the landing configuration. Simulated engine failures should not be conducted during slow flight. The airplane will be well below V_{SSE} and very close to V_{MC}. Stability, stall warning, or stall avoidance devices should not be disabled while maneuvering during slow flight.

Stalls

Stall characteristics vary among multiengine airplanes just as they do with single-engine airplanes, and therefore, a pilot must be familiar with them. Yet, the most important stall recovery step in a multiengine airplane is the same as it is in all airplanes: reduce the angle of attack (AOA). For reference, the stall recovery procedure described in Chapter 4 is included in *Figure 12-19*.

Following a reduction in the AOA and the stall warning being eliminated, the wings should be rolled level and power added as needed. Immediate full application of power in a stalled condition has an associated risk due to the possibility of asymmetric thrust. In addition, single-engine stalls or stalls with significantly more power on one engine than the other should not be attempted due to the likelihood of a departure from controlled flight and possible spin entry. Similarly, simulated engine failures should not be performed during stall entry and recovery.

It is recommended that stalls be practiced at an altitude that allows recovery no lower than 3,000 feet AGL for multiengine airplanes, or higher if recommended by the AFM/POH. Losing altitude during recovery from a stall is to be expected.

Power-Off Approach to Stall (Approach and Landing)

A power-off approach to stall is trained and checked to simulate problematic approach and landing scenarios. A power-off approach to stall may be performed with wings level, or from shallow and medium banked turns (20 degrees of bank). To initiate a power-off approach to stall maneuver, the area surrounding the airplane should first be cleared for possible traffic. The airplane should then be slowed and configured for an approach and landing. A stabilized descent should be established (approximately 500 fpm) and trim adjusted. A turn should be initiated at this point, if desired. The pilot should then smoothly increase the AOA to induce a stall warning. Power is reduced further during this phase, and trimming should cease at speeds slower than takeoff.

When the airplane reaches the stall warning (e.g., aural alert, buffet, etc.), the recovery is accomplished by first reducing