GRAMPAW PETTIBONE

And Away We Vertigo

Shortly after take-off while climbing through haze at 7000 feet, the number three man of an F9F-5 flight observed the number two aircraft fall off on its left wing. When asked whether he was in trouble, the pilot replied that he had vertigo.

At 6000 feet and 375 knots while following the first aircraft down, the wingman felt a violent vibration and was thrown into a tight nose-down spiral to the left. When stick movement had no effect on the attitude of the airplane, the pilot ejected, hitting the ground almost immediately after his chute opened.

The pilot who reported vertigo trouble broke out of the haze in an inverted left spiral. Recovering at 2000 feet, he observed the second plane strike the water in a 90-degree dive and the pilot make a parachute landing shortly thereafter.

Grampaw Pettibone Says:

Just who is saving who? Reminds me of the time the village character was in the corner grocery store explaining

to some of his cronies how his sidekick had lost his finger in the new electric meatgrinder—"Shucks, fellas, all he did was stick his finger in here thisaway and press on the switch like this-s-s-s-s . . ."

Sometimes it's not what you do, but the way that you do it. Apparently, the wingman attempted to follow the first aircraft through extreme maneuvers resulting from vertigo and unsuspectingly became a victim himself. In the absence of any conclusive information to the contrary, it appears that he flew into the jet

stream of the aircraft ahead while following it down. This would explain the vibration experienced and lack of aileron and rudder control. The pilot's low experience level in the operation of jet aircraft—this was his second jet hop—was such that he failed to correctly analyze the situation in time to prevent the accident.

Incidently, the emergency "D" ring, which insures the arming of the F9F ejection seat, needs to be pulled only in the event that the canopy fails to jettison when the pre-ejection lever is actuated. This pilot pulled the "D" ring as a precautionary measure—requiring a second or two that could have cost him his life. Best we do first things first!

And about that haze—a great deal of discretion must be used in scheduling pilots for initial familiarization flights in jet aircraft during periods of reduced visibility. In this particular case, the pilot was on two weeks annual training duty. While the brief active duty period required that training be expedited, there is a point beyond which the returns are not commensurate with the hazards involved.

Fatal Folly

After completing their assigned mission, the pilots of two AD-4's were requested to make low level passes on a task force for the benefit of AA crews. For half an hour they made runs on the various ships, giving free acrobatic demonstrations at the end of each pass.

On what became his final run, one pilot flew past at an estimated altitude of 100 feet, pulled up slightly, and began a slow roll at 200 feet. While he was on his back, the nose of the aircraft dropped and the pilot attempted to recover in a split S. Altitude was insufficient for recovery. The *Skyraider* struck the water in a 45° dive angle, and exploded as an exciting climax of the exhibition.

Grampaw Pettibone Says:

The pilot paid with his life for participation in this unscheduled airshow—and that's too stiff an entry fee.

Compliance with existing directives would have prevented this needless fatality. Paragraph 64e of OPNAV Instruction 3710.7 specifies that no acrobatic maneuver shall be conducted where, during the course of the maneuver, the entry, follow through or completion will be below an altitude of 1500 feet above the surface of the water, the ground or highest projection thereof; or, when the horizontal visibility in all directions is less than 3 miles; or within 3000 feet of an overcast or overhead clouds.

This young lad was long on confidence and short on judgment, but he still might have been saved from his own recklessness if, during the 30-minute period of similar acrobatics which preceded the crash, an alert ship or task force commander had recognized the potential danger and called a halt to the demonstration.

Aviation commanders at the local level might well enlist the aid of their shipboard counterparts in reporting obvious flight violations. While this would get some pilots up to their necks in trouble, it might save a few necks in the process.

As for the pilots themselves, they must

be so thoroughly indoctrinated that if they're tempted to engage in such shenanigans, they'll automatically realize that it just ain't fair to the insurance writers.

Dilemma Department

A NavCad piloting an AD-1 took off on a scheduled dive bombing, rocket, and strafing flight. Upon attempting to reset power for climbout to the rendezvous area, he discovered that movement of the throttle produced no corresponding movement of manifold pressure indications. His power settings were 2450 RPM and 45" manifold pressure—and he was stuck with them. Upon notifying his Flight Instructor of this situation, he was told to return to base. The instructor further advised the NavCad to advance his RPM to 2600. This was done and gave a manifold pressure of 48".

The instructor accompanied the student back to the field and radioed for a familiarization officer to man the portable radio equipment at the end of the duty runway. Since there was no qualified familiarization officer immediately available, the portable was manned by a pilot with about 1500 hours in the AD type. This officer called the NavCad who was orbiting at 3,000 feet with an airspeed 250 knots and told him that he would have only one approach and to make it a good one. He added that while he was there to help, the NavCad was flying the plane. He also told him that he would have to cut his ignition after passing the 180 and use his dive brakes to slow the plane down.

The Flight Instructor coached the student to the 180 degree position at 2,000 feet and turned control over to the acting familiarization officer. The NavCad reported passing the 180, gear down, and ready to cut switch, but was told to wait until about the 90 degree position. At about the "ninety" he was told to cut engine, extend dive brakes, and slow the plane to 130 knots.

Between the 60 and the 45 degree position the NavCad reported airspeed 130 knots. The plane appeared to be slowing too rapidly and he was instructed to pull up his dive brakes and get his nose over. Just past the 45 degree position he reported 100 knots and was told again to get the nose of the plane down to pick up speed.

The AD was settling rapidly and the familiarization officer felt that the torque effect might be fatal if he instructed the student to switch his engine back on. A few seconds later the plane hit the highway in a landing attitude just outside the airfield boundary. It then bounced through the perimeter fence, across a drainage ditch, rolled up to the runway threshold, and stopped 106 yards down the runway. The initial touchdown spot had been just about 1,000 feet short of the runway.

The pilot was uninjured, but the AD-1 suffered substantial damage.

Grampaw Pettibone Says:

Well, fellows, who takes the rap for this one? The NavCad was trying to follow instructions; the instructor and the acting familiarization officer were both trying to be helpful. Radio communications were apparently excellent. Although the plane was being operated at maximum continuous power settings, there was no great rush required to solve the problem—as long as cylinder head temperatures remained within limits. The accident board reports that a qualified familiarization officer could have arrived on the scene in a maximum of 15 minutes.

On the error side, maintenance personnel started the chain of events. Bolt, washers, and castellated nut, which were missing from the manifold pressure regulator throttle rod end bearing, were all recovered from the oil cooler cowling. The plane had been flown 1.7 hours since check.

Had a qualified familiarization officer been available immediately or had the decision been made to await his arrival, it is probable that he would have advised a regular approach, utilizing dive brakes, landing gear and flaps to control airspeed until the plane reached a position over or just short of the runway before cutting power. Although a safe power-off landing may be made from 2,000 feet at the 180 degree position, an approach using available power requires a good deal less skill and judgment.

Then there's the pilot. Although still a student, he had 378 hours of flight time with 93 recent hours in the AD-1. He had handled two earlier emergency situations very well.

The Accident Board, while noting all the other contributory causes, concluded "that the primary cause of this accident was pilot error in that the pilot did not plan his approach in such a manner that a safe landing could be made. Further, he did not attempt to think and plan for himself, but relied on the Acting Familiarization Officer to do it for him."

H'mmmmmm. After reading, this I was just about to call for my armor and sword and rush to this lad's defense. In fact I conjured up an interesting picture of a NavCad telling his instructor and the Acting Familiarization Officer, "Thank-you for your kind advice, Gentlemen, but I'm going to do this my way."

Since then I've ben doing some thinking about this particular case . . . and some reading, and I find the following in Change 4 to OpNav Instruction 3710.7, "General Flight and Operating Instructions for Naval Aircraft":

"The pilot in command is responsible for the safe and orderly conduct of the flight. His responsibility and authority exist from the time he enters his aircraft preparatory to flight until he leaves it upon completion of the flight."

"The authority and responsibility of the pilot in command of a naval aircraft flight are independent of his rank and seniority in relation to other persons participating in the flight insofar as operation of the aircraft is concerned. . . ."

There are some exceptions to the latter statement, but none that would apply to this case.

In short, it looks like you can accept advice at any time, but if it happens to be "bum dope"—brother, watch out!