grampaw pettibone

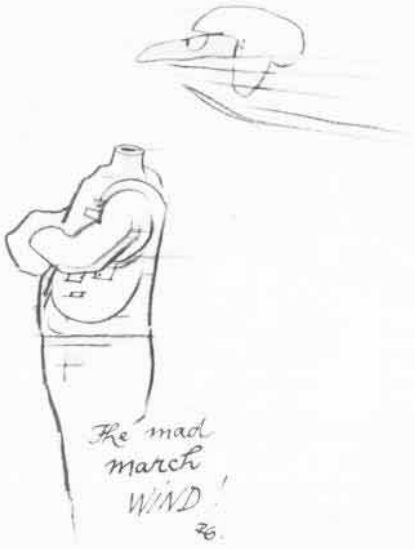
Mid Air

Two A-7 pilots were scheduled for a practice bombing flight. The brief, preflight and departure were without incident.

While proceeding to the target area, the flight switched radio frequencies from departure to target control. The leader was advised by the target that the bombing mission had been cancelled and his flight was to orbit a destroyer pending further instructions. Target control gave them a vector of 180 degrees at 90 miles. The *Corsairs* proceeded on course, and set up a 14,000-foot orbit when overhead the destroyer.

While holding, the flight switched to squadron tactical frequency and discussed operations for the remainder of the mission. They decided to drop their practice load and proceed with the secondary mission, air combat maneuvering.

The flight was at 250 kias with a port orbit, still at 14,000, in a loose cruise disposition. The wingman was on the starboard side. The A-7s commenced some mild maneuvering, which consisted of shallow wingovers. The leader was able to maintain visual contact with his wingman through his first maneuver. But halfway through the second, he lost sight of him and consequently leveled his wings.



In approximately a wings level attitude, slightly nose up, the leader experienced a violent yaw to the right as his aircraft went out of control. It stabilized about 30 degrees nose down with 120 degrees starboard angle of bank. He regained control, rolled level and pulled the nose to the horizon.

The wingman states that he had been flying a fluid cruise formation, maneuvering back and forth as necessary to maintain position. He added that the maneuvers did not exceed 80 degrees angle of bank, 20 degrees nose up or more than two Gs. When the leader leveled his wings, the wingman was at the lead's 4:30 position, right wing up with nose 10 degrees higher than the lead aircraft.

The wingman had angled off and believed he had enough airspeed to safely complete a roll over the top of the lead aircraft. At the top of the roll, he felt a shudder which he stated was very similar to flying through jet wash. After the wingman stabilized his own aircraft, he rejoined the leader. At this time he observed structural damage to the vertical stabilizer of the lead *Corsair*. He also noted slight damage to his own port wing.

After slow flight checks at altitude, both *Corsairs* returned to home plate. The leader's aircraft sustained substantial damage, the wingman's minor.

Grampaw Pettibone says:

Great horned toadies! Looks to me like the wingman didn't do too well. He executed an unbriefed maneuver with insufficient airspeed and separation on the other machine! That's *not smart!* I've said it before. There is a fine line between being aggressive and foolhardy. The wingman didn't know the difference.

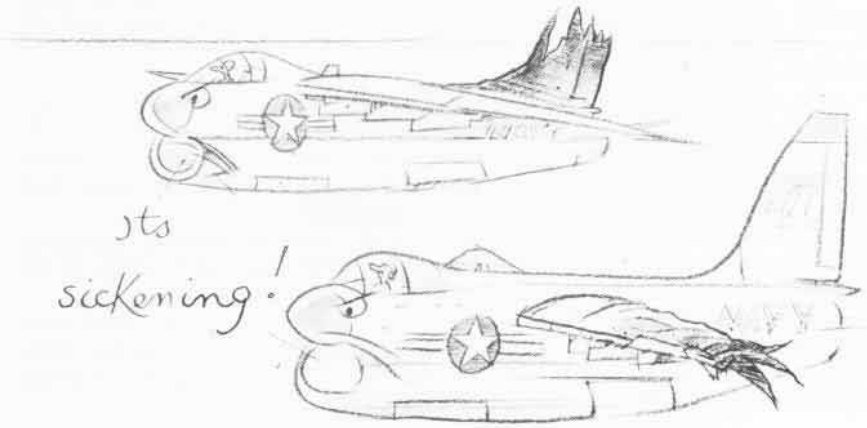
I was not surprised to hear that the wingman had pulled this maneuver on other occasions. This type of unprofessionalism and showmanship bothers me no end!

Instrument Takeoff

A PV-1 crashed into the water near the end of the runway, following a night takeoff. The surviving pilot stated that the engine and instruments had functioned satisfactorily during the takeoff run.

After becoming airborne, the pilot commenced a normal climb on instruments. Noting that the gyro horizon indicated the plane was in a nose-high right turn, the pilot raised the right wing and lowered the nose slightly. When the horizon failed to indicate this correction, the pilot assumed the instrument was inoperative.

He immediately referred to the turn



ILLUSTRATED BY Osborn

and bank indicator which showed the plane to be in a left turn. The pilot stopped the turn by reference to this instrument, then raised the nose as he saw the airspeed starting to increase. At this instant he struck the water.

Accepting the fact that the gyro horizon had failed, the accident board was still of the opinion that the pilot was too dependent on the horizon as the main attitude instrument. Members of the board recommended that all pilots be cautioned against placing full dependence on the artificial horizon, particularly during critical maneuvers. They pointed out that at such times the full use of *all* rate and attitude instruments is essential.

The board also reminded that it was necessary to maintain a constant power setting for a longer period on instrument takeoff than at other times since power is basically connected with maintaining the correct flight attitude.

Grampaw Pettibone says:

All instrument and would-be instrument pilots will do well to take heed of the sound advice handed out by this board.

The number of accidents which occur immediately after takeoff makes me wonder whether some of them might not be due to *pilot-caused* instrument failures. For example, do you know that it takes approximately five minutes at four inches of vacuum for a gyro horizon to build up to speed so that it will register correctly? Before that, it will act sluggish and fail to indicate the correct attitude of the plane — *just like the one in this accident!*

Also, do you know how to properly test your instruments on the ground, so you will know *before* you get in the air whether they will indicate correctly? Better be darn *sure* you do before your next instrument flight! (June 1945)

Oops!

Three crews were scheduled for a tactics flight, two in F-4s, the third in an F-14. After a complete briefing, the aircraft were preflighted. Start, takeoff and departure to the ops area were uneventful.

In the ops area, the three planes conducted two ACM engagements without incident. The aircraft then joined in a V formation with the F-14 as lead, one *Phantom* on the port wing and the other on the starboard side. Approaching the runway, about two miles out at the 2,000-foot break altitude, the F-14's wings were swept back to 68 degrees so that a tighter formation might be flown.

The kiss-off signal was given by the *Tomcat* pilot and a left turn was begun by the F-4 on the port side. As the left side *Phantom* broke, a mild jarring sensation was felt. The outer wing panel of the F-4 had contacted the left stabilator of the F-14. The planes separated and the crews assessed the damage. The F-4 had lost an outer portion of the right wing. The *Phantom* was slowed and its gear lowered. The pilot reported to the tower that he had lost part of his starboard wing and would be making an extended downwind to a no-flaps approach and landing.

An uneventful no-flaps landing, with only slightly increased stick forces to the left, followed. The F-14 also made a no-flaps landing without incident, followed by the remaining F-4.

Grampaw Pettibone says:

Great gallopin' ghosts! Who's in charge here?! With all the talent in this group who would have guessed such an outcome?

After all the *mastications* were in on this and all the charges and countercharges were made, it boiled down to the conclusion that the pilot misjudged his distance from the F-14.

Corrective action, by the way, is not to cease dissimilar formation flying but rather to cease dissimilar aircraft from running into each other in formation! We were lucky this time! Nuff said!