GRAMPAW PETTIBONE

For Want of a Nail

Two F-4 *Phantom II's* departed a coastal air station IFR for a training mission on top of the overcast, which involved combat formation practice, tail chase and air combat maneuvering. After completing individually controlled climbouts and breaking out on top of the clouds at 13,000 feet, the flight rendezvoused at a pre-arranged bearing and distance from home plate.

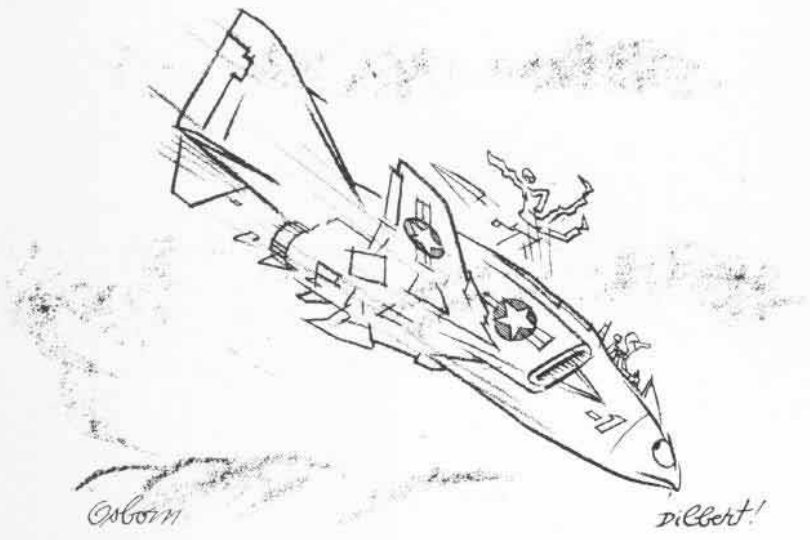
The two crews spent nearly an hour performing various turns and engagements, practiced formations and then broke into separate elements for individual TACAN penetrations to the naval air station. Approach Control put them into holding at separate altitudes and, after three circuits around the pattern, the wingman was cleared to descend for his TACAN approach.

During the penetration, the *Phantom* went into the soup at 13,000 feet. While still outbound, the pilot, a lieutenant, was given a vector by Approach Control and held at 9,000 feet. Reaching 22 miles, still in the clouds, the F-4 was cleared for a penetration turn. Starting his turn, the pilot noted his airspeed decreasing through 220 knots. He immediately lowered the nose of the aircraft, leveled the wings and went to military power. The radar intercept officer (RIO) in the back seat, watching the gyro horizon, yelled, "Your nose is low, pull it up! You're losing altitude." As the airspeed went to zero with the altitude decreasing rapidly, the lieutenant called for the RIO to eject. This the RIO promptly did, without even positioning himself properly in the seat, as the aircraft passed 7,400 feet.

The pilot then took his hands off the stick and pulled the face curtain with both hands. Nothing happened, so he pulled it twice again and then tried the alternate handle without effect. Realizing that he had to fly the airplane or else, he looked at the gyro horizon, leveled his wings, lit the afterburner and pulled back on the stick.

The F-4 broke out into VFR conditions at 13,500 feet msl with an 80° nose-up attitude as the front canopy separated from the aircraft. Executing a wing-over recovery to level flight and regaining control, the pilot noted that his airspeed was still zero. He thereupon turned on the *pitot heat* and regained his airspeed indication. The lieutenant soon found a break in the clouds and returned to the field VFR for a normal landing.

His poor RIO fared not so well. The high-speed ejection caused flail fractures of his left arm; the rocky landing fractured both his knees. He spent a wet cold hour in the brush awaiting helicopter rescue.



Grampaw Pettibone says:

Great balls o' fire! A two-and-half-million-dollar airplane almost lost because two people couldn't bother with the descent checklist. The U.S. Navy has too much at stake to condone this sort'a amateurish operation. Yes, people will make mistakes. That's why we have checklists but we've got to use them. I hope these guys aren't still flyin', cause if they are I sure don't want'a fly with 'em.

Skippin' a checkoff list may save 40 seconds in this world only to precipitate an arrival 40 years too early in the next.

ILLUSTRATED BY Osborn

Brush-off

The twenty-two *Typhoon Hunters* gathered at base ops at 1400 to be briefed on an assigned weather reconnaissance flight through tropical storm *Julie*. The crew had made an investigative flight through the same storm the day before and had found it small but growing.

The plan was to penetrate at low level (1,500 feet msl), then to make a climb-and-ascent sounding in the eye, escaping at the 700-millibar level (10,000 feet). The latest report (six hours prior) showed about 55-knot maximum winds. It looked like a routine flight.

The WC-121N *Super Constellation* lifted off from the Pacific island base at 1658. The storm was sighted at about 200-nm range. After a conference between the aircraft commander (AC), combat information center officer (CICO) and flight meteorologist (Metro) concerning the radar presentation and the characteristics of the storm, they decided to proceed with their previous plan.

At a distance of 70 miles, the AC took a last look at the radar and then took control of the aircraft.

The cabin was checked and the crew briefed. The wind and turbulence became more intense, so the power was increased to 2,600 rpm. The flight engineer was instructed to maintain 190 knots airspeed. Visibility in the darkness varied between zero to a half mile in and out of the clouds.

The CICO gave vectors to bring the aircraft to the storm eye. As they approached, Metro, observing winds of 80 to 90 knots, recommended heading changes to keep the wind off the port wing. At this time, the CICO's primary radar console failed, and it was necessary to move to the secondary scope which had not been set up as a back-up for the penetration. Reorientation of the scope, including a grease pencil sketch of the wall cloud, proceeded with some difficulty, owing to sea return and clutter, but it was accomplished in nine to 12 minutes. Metro visually observed the surface winds at an estimated 100 knots with a drift of over 30 degrees as they continued the search for the wind eye.

The heavy rain and turbulence continued until the surface wind velocity decreased. Shortly, the wind became completely calm, then almost immediately began increasing from the opposite direction. When the wind shifted, Metro recommended a 180-degree turn in whichever direction was best. CICO advised that he had heavy weather to starboard and called for a turn to port, then urged a hard port turn as the wall cloud became visible on the radar.

The pilot rolled the *Willie Victor* into a 20-degree-bank port turn and suddenly encountered the wall cloud turbulence. The first jolt caused the aircraft to vibrate so severely that the AC believed he was experiencing prestall shudder. Maximum power was ordered and set. As the aircraft rolled out on the escape heading, another shock of equal severity caused the airspeed to vary by 50 knots and altitude by 800 feet. The copilot came on the controls with the AC as the large craft became almost uncontrollable.

After about a minute, the turbulence and downpour subsided. The flight steadied down on heading for a climb to 10,000 feet. The third pilot was sent aft to check for injuries and damage.

Fortunately, no one was hurt. However, on his return to the cockpit, the third pilot observed blue sparks flashing in the vicinity of the starboard wing tip. When the over-wing lights were turned on, it was discovered that the starboard wingtip and the tip tank were missing.

The wingtip lights were secured and the other tip tank was emptied. No other difficulties were encountered, but the aircraft required five-degree right aileron and three-degree left rudder trim to maintain level flight. A normal landing was executed upon arrival at home base.

Grampaw Pettibone says:

Brrrr! Never underestimate the fury of a woman scorned! That wild young lady really gave those boys the brush-off. Though procedures were "standard throughout," I get the feelin' these boys may have become a little complacent and lacked adequate respect for a very unpredictable situation.

Loss of the radar left the flight literally gropin' in the dark for over ten minutes. Why wasn't the standby radar tuned up? Why was the flight seven knots over recommended turbulence penetration airspeed? Even a slight variation may become critical when you run into extreme conditions. Ol' Gramps wants all the chips in his corner on a mission like this one.