



# GRAMPAW PETTIBONE

## Automated Disaster

In these days of automation and computers, accidents are still caused, and must be prevented, by people.

The 27-year-old lieutenant was on his second deployment in an F-4J *Phantom II*. This first flight after a nine-day, in-port period would be a good warm-up and back-in-the-saddle hop. As the flight leader, he briefed the combat air patrol mission, including for the first time the possibility of accomplishing a Mode I (fully automatic) ACLS (automatic carrier landing system) recovery.

Preflight, manning and launch were uneventful, and the routine mission went smoothly. The lieutenant called for and received marshal instructions for a Case II, Mode I, recovery, an approach which he had previously flown to minimums on two occasions. Case II involves descent through IFR conditions with a VFR recovery. The flight departed the marshal point on time, established radio contact with the ACLS radar controller at eight miles and the pilot engaged the autopilot. He received a "locked on, report coupled" from the controller at about six miles and then coupled his aircraft



to the ACLS shortly thereafter, a fact which he relayed to the controller.

The sun was at a position about 15 degrees to the left of the ship's heading and 30 degrees above the horizon. The glare from the sun and off the water was intense, and the pilot and his radar intercept officer (RIO) realized that they were going to have difficulty spotting the datum lights and the meatball in the lens system. Both, however, strained to see the ball

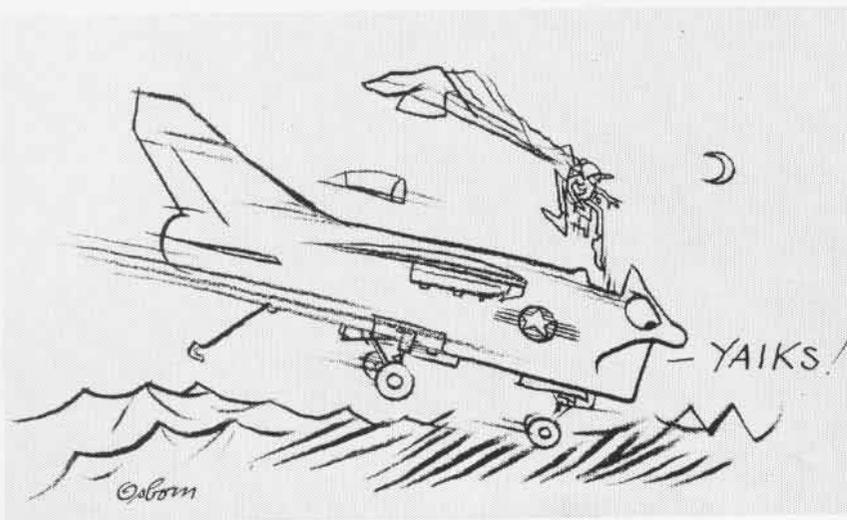
in order to judge the performance of the automatic system.

The controls reacted promptly and smoothly to the data link commands, and the pilot judged it to be an excellent line-up. From the instruments, they found the distance, speed and altitude checks to be flawless. Because his view of the ship was almost obscured by the sun, the lieutenant was vaguely glad he was coupled. (Several pilots from the same recovery period regarded the approach as actually under instrument conditions because of the intense glare.)

Nearing the ship, he received a last transmission from the controller, "3/4 mile, call the ball." He immediately initiated the prescribed call indicating "Clara" (no ball in sight) and that he was coupled. As he waited for the LSO's response, he continued to search for the ball and scan the instruments. At what he judged to be minimum wave-off distance, he could see the deck, which looked clear.

As the *Phantom* crossed the ramp, the pilot's attention was suddenly focused to the right side of the landing area — to a shape moving out onto the deck. He applied left stick, dropped the left wing, then centered it quickly to engage the #1 wire. The aircraft rolled out slightly left of center; the last-second correction had introduced only a small displacement. The RIO had not felt uncomfortable about the approach but noted the same shape as the aircraft crossed the ramp. He quickly grasped the alternate ejection handle as they began the arrestment.

The pilot stated that his first conscious indication that something was wrong was during the roll out as they narrowly missed an RA-5C *Vigilante* which was being taxied out of the parking area. As they came to a stop, he realized that maybe he hadn't received the LSO's acknowledgement of his call. Both occupants of the *Phantom* looked about the flight deck and



simultaneously realized that there were no yellow shirts ready to control their deck movements. The RIO was the first to voice the fact, which was by then obvious to both, "We must have landed on a fouled deck."



Grampaw Pettibone says:

Whew! This one leaves me breathless! This is almost an exact repeat of a real disaster which occurred on the same CVA exactly six years ago when an F-3 *Demon* landed on board at night during a re-spot. That time there were two fatalities, ten serious injuries, four aircraft destroyed and four more substantially damaged. Why do we have to learn the same lessons over and over again?

The poor pilot was really booby trapped into this one. True control of the situation should have been exercised on board that ship. A host of safety interlocks, NATOPS procedures and just plain good common sense were inactivated and bypassed to precipitate what could have been another tragedy.

The LSO frantically called a wave-off to the approaching *Phantom*, but was on the wrong frequency. He had just arrived on the platform which was not equipped with flares or lights for signaling a fouled deck. Two separate systems, the deck closed tele-light in CCA and an indicator from the LSO foul deck circuit, specifically designed to prevent such a mishap, were purposely disabled. CCA personnel, therefore, had no way of knowing that the deck was closed. The air boss and his assistant were, of course, concentrating on the launch and were as surprised as everyone else to see the *Phantom* roll out on deck.

The air officer had robbed himself of any possible way of quickly signaling a wave-off to an aircraft in the groove. As in the previous disaster, the major responsibility rests on his shoulders: a man whose great efforts and months of successful operations often go unrewarded, but whose failures, as well, go undisciplined.

## Non-Acrobatc Elephant

The RA-5C *Vigilante* is an extremely valuable, supersonic reconnaissance system equipped with a multitude of highly complex sensors for recording electronic and visual information over enemy territory. What it is not . . . we'll get to that later.

The aircraft was being flown on a test flight acceptance check following its delivery to the squadron from progressive aircraft rework.

The well qualified, senior, aggres-

sive Naval Aviator was briefed by the squadron operations duty officer and maintenance quality assurance personnel on the test requirements. After takeoff, the emergency retraction switch had to be used to get the landing gear up because the gear handle did not work. A quick trip to 35,000 feet and back, in the positive control airspace without clearance, completed the first part of the flight.

The remainder of the test required slow flight at a lower gross weight, so the pilot selected afterburner and went into a series of acrobatic maneuvers to burn down. First several wingovers were performed; then he accelerated to .95 Mach at 12,000 feet and pulled up, initially intending to do a barrel roll to the left. This was quickly modified to a loop, and he applied about 2½ G's, using visual reference to the horizon and the attitude indicator. At 90 degrees nose up, the sun partially blinded him and, as the big craft continued to 120 degrees nose up, it ran out of airspeed. The pilot attempted to pull the nose down through the horizon with back stick pressure; however, the aircraft suddenly snapped violently to the right and entered inverted post stall gyrations.

Various control inputs with stick and rudder caused the yawing oscilla-

tions to stop and violently reverse several times. The plane did roll to an upright attitude; but, the uncontrolled gyrations continued from 27,000 feet down to 9,000 feet when the pilot initiated command ejection for himself and the radar attack navigator in the back seat.

The flight terminated abruptly when the machine hit the ground in uncontrolled flight, after the crew had ejected.

Both crewmen landed safely with minor bruises and were returned to home base by the SAR helo.



Grampaw Pettibone says:

Jumping Jupiter! If the *Vigilante* was expected to do acrobatics, procedures would have been published; they haven't been. Even the best of our fighters won't do a 2½-G loop at 12,000 feet. In spite of poor entry procedure and technique, and non-existent stall/spin recovery procedures which might have prevented this accident, the primary error by this pilot was attempting the maneuver in the first place. In combination with his other omissions/commissions, the lack of mature judgment becomes self evident.

This flamboyant tiger will fly no more. As a fighter pilot, he might'a been hard to beat. As a professional Naval Aviator, he is one we can and will do without. The Navy can ill afford to cater to the personal whims and ego-satisfying showmanship of those few individuals whose immaturities dictate the fate of lives and millions of dollars worth of equipment.

