

Tomcat Tangle

A pair of F-14s launched from USS *Carrier* were on a one-versus-one air combat maneuvering training flight. In the working area, the *Tomcats* split up and began an intercept from 18 miles at 24,000 feet, intending to pass one another right to right.

The leader commenced a hard-left, nose-low turn. The wingman turned right, nose high, toward the leader, in the same "circle of flight." The aircraft lost momentary sight of each other, then the wingman regained the leader at approximately two miles. The wingman appeared to be nearly nose-on to the leader – the wingman's nose "leading" the approaching *Tomcat* – and transmitted, "Going to heat," signifying he was selecting Sidewinder. The aircraft were oblique to each other in the circle, the wingman somewhat inside the leader's turn.

The leader "appeared" at the top of the wingman's heads-up display (HUD) but the wingman did not get a Sidewinder tone. The wingman called "Fox One" at 1.2 miles and then selected gun. He believed the *Tomcats* would pass right to right with his F-14 having a 20-degree "advantage."

Noting the two aircraft seemed to be at the same altitude, the wingman pulled 2.5 Gs to achieve vertical separation. At this point, the leader was vertically centered and slightly to the right in the wingman's HUD, the F-14s now very close to each other.

The wingman pulled his nose up, intending to pass over the leader in a hard right turn, and called, "Coming right." At this instant, the lead *Tomcat* appeared at the bottom of the wingman's HUD.

The leader recognized that a collision was imminent and pushed his stick full forward and to the left. But the fighters collided nonetheless.

Nine feet of the leader's right wing was severed and 80 percent of the in-board flap was destroyed. The aircraft yawed left and became uncontrollable. The pilot saw a fireball aft and left of the *Tomcat* as it went into a flat spin, engulfed in flames, with part of the tail missing. The radar intercept officer



(RIO) observed a fireball moving forward inside the cockpit. The pilot was thrown forward as he tried to actuate the lower ejection handle with his right hand. Seconds after the collision, the RIO reached for the upper ejection handle and felt heat behind the seat. Then, seeing flames between his legs, he initiated ejection for both crew members with the lower handle.

Although both the pilot and RIO lost their helmets and oxygen masks in the process, the ejection was successful. They parachuted into the sea and were recovered, the pilot by a fishing boat

and the RIO by the carrier's helicopter.

After impact, the second *Tomcat* plunged into a series of uncontrolled, accelerating, nose-low rolls to the right, the turn needle pegged to the right. The wingman went to military power and put in full left rudder. At 12,000 feet with air-speed going over 320 knots, the RIO declared, "I'm ejecting!" Because he felt he was regaining control, the pilot said, "Don't eject, don't eject!"

Shortly thereafter, control was regained and the pilot leveled the F-14 at 10,000 feet. The wingman proceeded to a shore-based divert field, landing safely.

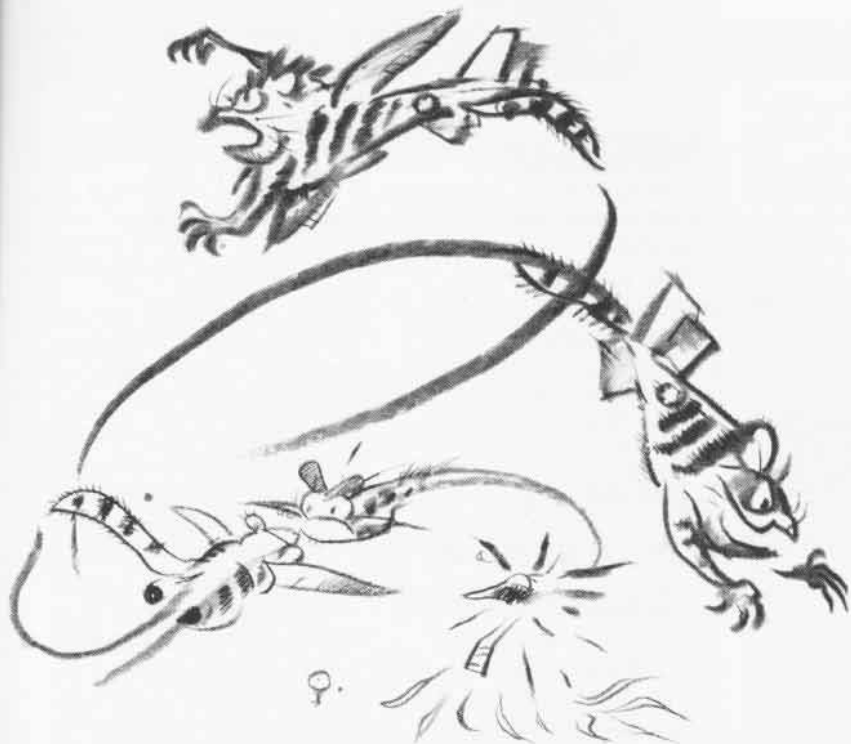


Grampaw Pettibone says:

Great smokin' holes! Gents, this fries my liver! Seems we're readin' about this sorta thing too durn often.

Three of the four aircrewmembers involved were well-trained flyers. Even so, spacial awareness went by the boards as the two birds took aim at each other. Both pilots busted the rules by failing to positively establish direction of the pass. Plus, both executed forward-quarter missile attacks inside of 9,000 feet and within 20 degrees of the target's nose – a no-no. They misjudged distance and then waited too long to act.

It's as simple and as complicated as that. "Trainin' like we fight" sounds good, but we still gotta be here to fight. Bustin' up good aircraft and losin' experienced aviators in the process ain't accomplishin' any mission in Naval Aviation I ever heard of. You men and women out there puttin' high-performance aircraft through their paces – and Gramps doesn't know any birds in the USN/USMC inventory, fixed or rotary wing, which aren't high-performance flyin' machines – might take note of professional football cornerbacks. The great ones know their lines of pursuit. They know where they are at all times, which receivers are comin' at 'em – and from where – and when to make their move to bust up the pass, without gettin' hurt. We gotta get these simple things back under control. The rules are there for



a reason – some are even written in blood – now let's re-cage our gyros and pay attention! Nuff said.

Prowler Predicament

As a Block 82 EA-6B *Prowler* was fired along the catapult on a night launch, one of the "backseaters" saw a bright flash in the vicinity of the aft circuit breaker panel. Once safely airborne, the crew determined that the flash was caused by a nonessential circuit breaker popping. Coincident with this, the INS (inertial navigation system) circuit breaker in the forward cockpit popped, causing loss of the *Prowler's* navigational computer. Five minutes later, a third circuit breaker popped.

One of the flyers remembered a NATOPS (Naval Air Training and Operating Procedures Standardization) caution: "When a popped circuit breaker is reset in the EA-6B, a high-temperature flash fire can result." So, although the nav computer was inoperative, the crew decided not to reset the circuit breaker and to continue the mission relying on their TACAN (Tactical Air Navigation system).

Two minutes later, a backseater noticed that his UHF (ultra high frequency) repeaters were now blank and asked the front crewmen, "Is there a reason you've turned off the radios?" The answer was, "The radios have not been

turned off." Stay awake; now it gets interesting.

The UHF radio circuit breakers were in, but the radios were inoperative. The right front seater tried VHF (very high frequency) guard but got no reply from USS *Carrier*. He did make contact with a foreign ground controller on VHF, but the controller couldn't communicate on UHF and, therefore, was unable to advise the ship of the EA-6B's predicament. The *Prowler* had an HF (high frequency) radio, but it tunes only in whole numbers while the frequencies that the ship monitors all use the tenths digit.

Summarizing, the *Prowler* had two radios which would not work and two radios which worked perfectly but could not be used. Conclusion: the EA-6B was NORDO (no radio).

The crew thus resorted to their PRC-

90 emergency radios, discovering, however, that they had much shorter range than anticipated. At 20 miles from the ship, they were unable to establish contact. Their communications receiver was also inoperative, but the scanner functioned properly. The approach control frequency was selected and, with relief, the crew heard a controller issuing marshal instructions. Shortly thereafter, they switched to the tanker frequency and rendezvoused on it. The *Prowler* resorted to PRC-90s for communication with the tanker, which the tanker described as "weak but readable." Eventually, the EA-6B returned to approach control and was ushered down to an uneventful recovery utilizing the scanner.



Grampaw Pettibone says:

There are 10, count 'em, 10 radios in a *Prowler*: 2 UHFs, 1 VHF, 1 HF, a scanner, a comm receiver, and a PRC-90 for each of the four aviators in the cockpits. As one of the participants in this flight noted when discussing lost radio procedures during the briefing, he believed that with so many radios on board, "it [loss of radios] could never happen to us."

But it darn near did, at night no less. And Gramps has yet to meet the Naval Aviator who looks forward to a night NORDO approach to any deck.

The *Prowler* crew played the situation well, but they mighta got with that scanner a bit quicker. Both strike control and an E-2 *Hawkeye* had been trying to reach the EA-6B on UHF guard but that frequency wasn't dialed in.

Those PRC-90s, by the way, are nice to have around, even if their range is limited.

A tip of the leather helmet to Ltjg. Tony Silk.

