

Tumult in a Tiger

A pair of F-5E *Tiger* *IIs* was on a one-versus-one air combat maneuvering flight, the instructor in one aircraft and the second pilot on his eighth flight of a 10-flight F-5E transition syllabus. The pilot under instruction aggressively maneuvered nose high to a “guns kill” of his lead. In the process, he allowed airspeed to decrease below 100 knots while nose attitude increased to greater than 75 degrees nose up.

The instructor noted that the second pilot’s aircraft was in a “close to pure” vertical attitude at 14,000 feet—8,500 feet above ground level (AGL). The nose-high pilot transmitted, “Pipper’s on . . . tracking . . . knock it off.” Shortly thereafter, his aircraft was observed in a nose-low, slow-speed departure that progressed to an inverted, flat attitude descent.

The instructor transmitted, “10,000 feet, eject” followed by the descending pilot’s call sign and two more eject calls. The pilot in trouble radioed, “OK, the stick is aft,” which implied he was conducting step two of the Naval Air Training and Operating Procedures Standardization (NATOPS) inverted-out-of-control-flight, boldface recovery procedure. The instructor retransmitted the pilot’s call sign and two more eject commands. The instructor then observed a yellow flash from the plunging F-5E, indicating the canopy or seat cartridges had fired. The jet was about 1,000 feet AGL at this moment.

Ejection occurred outside the

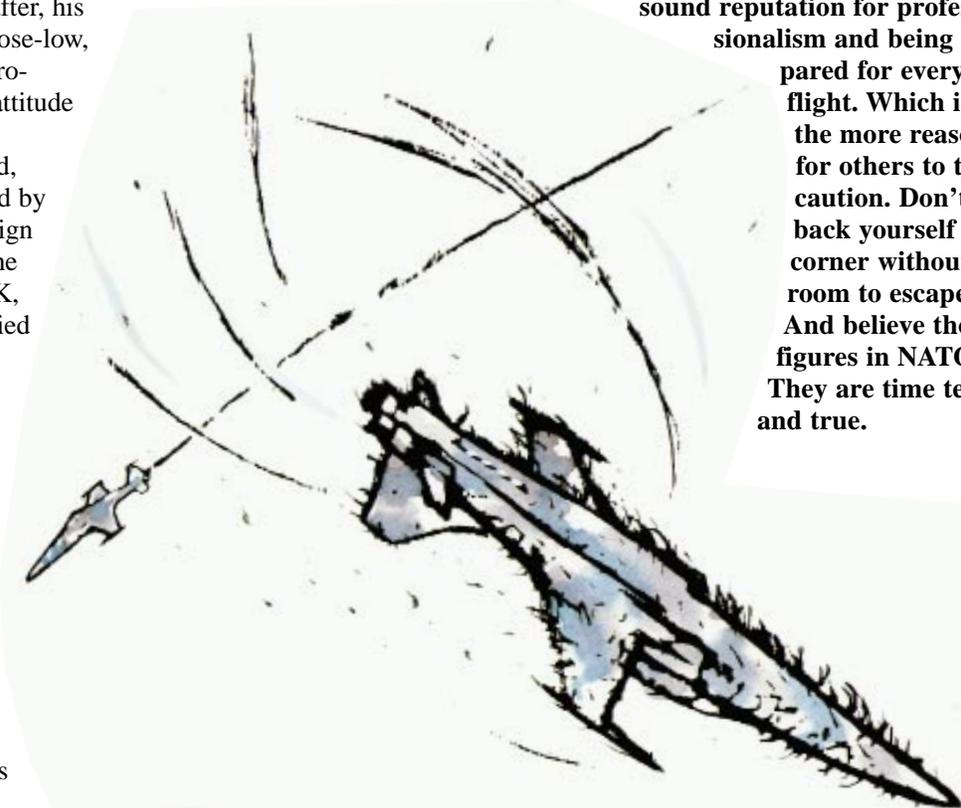


envelope. The pilot was killed; the aircraft struck the ground inverted and was destroyed.



Grampaw Pettibone says:

Gol dang it! NATOPS sez you must start your recovery prior to dropping through 100 knots indicated airspeed during zoom climbs in which pitch attitude exceeds 75



When things get hairy...

degrees in the *Tiger*. If you don’t, the F-5E’s tail slides and there isn’t enough pitch control for a quick recovery. Plus, inverted spin entry is highly probable. It’s in the book!

On top of that, this flight was over “high elevation” territory with the lowest terrain in the working area at

5,200 feet. The F-5Es were maneuvering very close to the minimum clearance altitude required. (The instructor was concerned about this and some nearby foothills prior to the final maneuver, but allowed the engagement to continue.) When things went bad, there wasn’t enough room or time to correct the situation.

The pilot who was lost had a sound reputation for professionalism and being prepared for every

flight. Which is all the more reason for others to take caution. Don’t back yourself in a corner without room to escape.

And believe those figures in NATOPS. They are time tested and true.



Sinking Sea Knight

A CH-46E *Sea Knight* was operating from an amphibious assault ship with a helicopter aircraft commander (HAC), copilot and crew chief on board. The copilot was undergoing a NATOPS check. Practice flight with the automatic flight control system (AFCS) and simulated single-engine (SIMSE) approaches to the ship were planned for the sortie. The pilot in command briefed that once the AFCS was turned off, it would probably remain secured for the rest of the flight. The copilot was concerned about SIMSE landings to a specified spot with the AFCS off. His previous squadron prohibited practicing compound emergencies, such as SIMSE, with the AFCS off. But he did not directly express his concerns to the HAC.

The flight proceeded normally and after several approaches and landings, the HAC turned off the AFCS and left it off. Both pilots successfully flew additional approaches—all with the AFCS off. While on the upwind leg for another approach, with the copilot at the controls, the HAC initiated SIMSE failure by calling out “simulated engine fire” and retarding the

number one engine condition lever (ECL) from the “FLY” to the “START” position.

This emergency required the *Sea Knight* to land as soon as possible. The copilot set up the approach for landing on spot five between two helos, one turning and one with blades folded. The approach continued with the CH-46E hovering momentarily in a hover-out-of-ground-effect (HOGE) situation, abeam the landing spot. The single-engine torque required for the weight of the helo to fly in HOGE was 152 percent; however, with the ECL in “START” on number one engine, only 115 percent was available. Then, the helo began to settle. A waveoff attempt, while trying to restore number one engine power, was unsuccessful. The rotors struck the port side of the catwalk, damaging three other helos. The *Sea Knight* plunged into the water. The crew egressed with minor injuries. The CH-46E was lost.



Grampaw Pettibone says:

Thunderin’ thunderbolts! Ole Gramps is glad the crew survived their *Sea Knight’s* dunk in

the briny deep. But that’s the only plus about this fiasco. The copilot continued to fly the bird through a hazardous maneuver imposed on him by the HAC. This placed the aircraft in an unrecoverable situation. The crew didn’t have time for the number one engine to spool up after placing the ECL in the “FLY” position.

The air boss on the amphibious assault ship was informed by the HAC before the flight that the *Sea Knight* would request approaches with simulated system failures and SIMSE landings. But the air boss did not understand that the SIMSE landings would result in the aircraft crossing the flight deck with the affected engine off line. With the ECL in the “START” position, the *Sea Knight* was actually in single-engine approach mode. That’s too much realism for a training flight.

The HAC allowed the helo to get into a situation that was too tough to handle. That’s poor judgment in spades.