

## Waiting Game

An instructor and two student Naval Aviators were on a four-leg cross-country from NAS South to NAS North in a TH-57 *Sea Ranger*. All had family in the destination area. Wrote one of the student participants about the flight, "We got together at O dark thirty for planning the journey and after some creative math, we came in just under max gross weight."

Not long after launch, the crew noticed that vehicular traffic seemed to be moving as fast as the helo. Turned out that ground speed was barely 75 knots, the winds were stronger than anticipated, and they would be cutting it close to reach planned stop number one. A closer airfield was selected for the first refueling. "All our tedious preflight planning was out the window," recalled the student. "While planning the next leg, I agonized over the charts and [instrument flight rules] supplements – but they were difficult to read because they were vibrating in rhythm with the aircraft. Three pen drops and numerous chart folds later, I had a plan."

Upon reaching stop number two, the *Sea Ranger* was directed to hold, in deference to airliners landing at the airport. The TH-57 was approaching a low-fuel state when it was finally cleared in. At this point, the crew was beginning to tire and considered terminating the trip and returning to home base, but because "family was waiting," they decided to continue.

It became dark during leg three. "In the back seat, working on the flight logs, I added a flashlight to my juggling act," wrote the student. "But the light began to flicker constantly and increased the size of my headache." By now, the crew was developing a real case of fatigue.

"At stop three, a major-size international airport, our TH-57 hovered momentarily in the wake of a landing 747 amidst a whirlwind of flying grass, scraps of paper, and assorted FOD [foreign object damage] material brilliantly illuminated by our spotlight. I was convinced the engine would ingest something large enough to destroy it, but we landed safely nonetheless. I was worn out and I'm certain my instructor was, too. We looked at each other with glassy eyes and tossed around the



idea of remaining overnight. But since we were close to the final destination – and our families were waiting – we pressed on."

En route to stop number four, the *Sea Ranger* flew toward a restricted area and received a caution from air traffic control. This angered the instructor. Wrote the student: "He passed me the controls and snapped the map out of my hands all in one quick motion. All I could think about was how painful it would be if we got a flight violation."

Thankfully, the TH-57 was given a vector to clear the restricted area. The instructor's temper subsided. The helo

continued and landed uneventfully at the destination airport five minutes before it was officially closed for the day. The student went off with his father and fell asleep in the car within five minutes – after not having seen his Dad for a year.

To his dismay, the instructor learned that all rent-a-car offices were closed, leaving him no choice but to stay at the airport until the next day.

"If we'd had an in-flight emergency, I doubt any of us would have been sharp enough to handle it properly." So concluded the student Naval Aviator.



**Grampaw Pettibone says:**

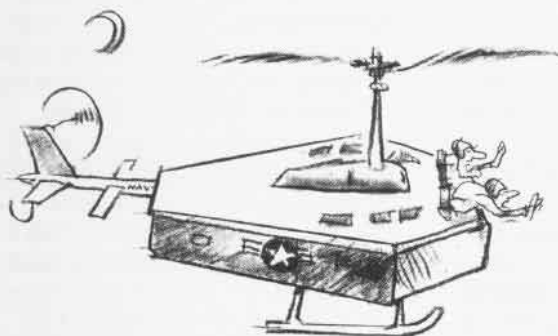
**You got that right! So concludes Ole Gramps.**

The phrase "family is waiting" equates to "get-home-itis," a phenomenon that has been singing my whiskers since ole Gramps was a nugget. These fellows pushed it and got away with it. Dumb luck prevailed. Now let's learn from the mistakes of others: have a plan, stick to it, use common sense. "How will I explain all this to the accident board?" is a good question to ask if it ain't all comin' together right.

A tip of Gramps' leather helmet to Ensign Joseph A. Vasile.

## Helo Horror

A UH-46D *Sea Knight* was on a night vertical replenishment (vertrep) mission



overseas. The pilot at the controls (PAC) and pilot not at the controls (PNAC) briefed in the cockpit. Emergencies, including use of emergency throttle, were not discussed. Also onboard were the crew chief and the second crew member (SC).

They flew at altitudes from 25 to 125 feet moving stores between two ships. The receiving ship's flight deck was 12 feet above the surface. The aircraft encountered light salt spray during the sortie.

The *Sea Knight* departed one ship for the other, 300 yards away. After traveling a third of the distance, the PAC noted that rotor speed was at 98 percent and dropping. The PNAC saw 88 percent rotor speed but did not report this over the intercom. The PNAC used the "beep" trim switches for about six seconds to adjust engine condition actuators and rotor speed/free power turbine speed to maximum, then reported going to max beep.

"We should pickle the load," said the PNAC.

"I think I can save it," said the PAC.

The crew chief advised the second crewman to use the emergency cargo release to jettison the external load. The PNAC ordered, "Pickle the load," and the PAC began a climbing right turn, accelerating to 70 knots. The load fell clear.

The PAC armed the emergency throttle (ET) but did not recall reporting that he was doing so. This action converts the beep switches on the collective from engine trim functions to emergency throttle use whereby the pilot controls the fuel input manually. The PNAC did not know ET had been armed. The crew chief noted the engines accelerating, creating a "screaming" sound. The helo experienced a noticeable airframe shudder. Witnesses from a ship saw a flare-like object depart from the No. 2 engine compartment followed by an explosion and fireball. The crew chief saw the engine burst into flames with pieces coming from the exhaust area. He told the pilots to pull the fire T-handle for the engine, which the PNAC did, activating both fire extinguishing agent switches.

The PAC called, "Mayday," and began a turn back toward his ship. No. 2 engine was now at 10 percent free power turbine speed. The PAC observed No. 1 engine falling from 95 to 85 percent and told the crew it was also failing. At 100 feet of al-

titude, the PAC called for ditching. The helo struck the water upright but the cargo ramp departed the aircraft and the *Sea Knight* began to sink tail first, rolling left. The overhead cabin lights illuminated along with the HEELS (helicopter emergency egress lighting system), as advertised. The pilots and crew chief egressed safely, but the second crewman was lost at sea.



**Grampaw Pettibone says:**

**Holy helos! What happened to aircrew coordination? Although this detachment was deployed on short notice, which prevented normal training evolutions, seems the crew could have at least conducted a complete briefing – 'specially on the subject of power failures and emergency throttle use. There was confusion in the cockpit over use of "beep" (engine trim) and the emergency throttle. The PAC armed the ET while the PNAC activated beep switches, causing the No. 2 engine to overtemp and explode. Plus, the PAC decreased collective with No. 1's ET actuator extended, causing the "good" engine to overspeed and flameout.**

Ole Gramps admits this is an exciting scenario (night, low altitude) for engine failure that requires quick actions and correct procedures. But if the PAC and PNAC had had a better idea of what each other was going to do when

things started turnin' to worms, it sure woulda helped. The H-46 emergency throttle arrangement is confusin' enough – that's why it's practiced over and over – but fast hands in the cockpit never helped much that I can recall.

The second crewman was secured by his gunner's belt rather than the seat belt, as required, and knelt on the cabin floor as the helo descended. The investigators learned that the SC preferred being attached to the gunner's belt in emergencies, but NATOPS (Naval Air Training and Operating Procedures Standardization) says the SC should be seated with safety belt fastened.

Sea Knights and their vertrep crews perform hard, demanding duty at altitudes favored by only angels and birds. Ole Gramps salutes 'em. But they still need solid emergency briefings just like everybody else.



*Man-made  
Mayday*