Illustrations by Ted Wilbur

Fire in the Hole

A division of four F/A-18Cs was en route to the air-to-ground working area when the second section leader's left engine fire light came on. The pilot informed the division leader, who saw a thin stream of smoke emanating from the *Hornet* but didn't advise the pilot. The pilot in trouble informed the leader he did not need assistance and that he and his wingman would return to base in section. As the F/A-18s turned toward home, the wingman saw trickles of smoke coming from the *Hornet*. The smoke increased and then flames streamed momentarily from the bottom of the aircraft near the auxiliary power unit. The pilot secured the left throttle and pushed the fire light in accordance with Naval Air Training and Operating Procedures Standardization (NATOPS). The light stayed on, confirming that a fire did exist. The pilot continued to look for other indications of the fire and noted the exhaust gas temperature spiked (at maximum) on his instruments. This occurred about one minute after the fire began. At this point the pilot activated the left engine fire extinguisher. The situation did not worsen and the flight continued to a safe recovery at home plate.

Post-flight examination revealed that the airframe-mounted accessory drive aft power transmission shaft had failed. The fire started as a result of the flailing of the broken shaft which ruptured a fuel line, causing severe fire and heat damage to the engine compartment.

Grampaw Pettibone says:

Leapin' lizards! The division leader sees smoke comin' from a wingman's aircraft and doesn't tell him about it! Why not? He thought the pilot had already confirmed the fire. Believe Ole Gramps: 'tis better to be overly cautious than under informed.

Even more surprisin' is that the pilot in trouble goes through the bold face steps of his NATOPS check list, gets a positive indication that the fire does exist, and yet continues to look for more signs of fire for another minute or so. Finally, he activates the fire extinguisher. Who

knows how much damage could have been prevented with prompt actuation of the fire extinguisher? NATOPS sez: if fire indications exist after pushing the left or right fire light and the light continues, activate the fire extinguisher.

Seconds count in any aircraft, especially the high-performance types. Thank the Lord, man and machine made it down OK.

Night Line

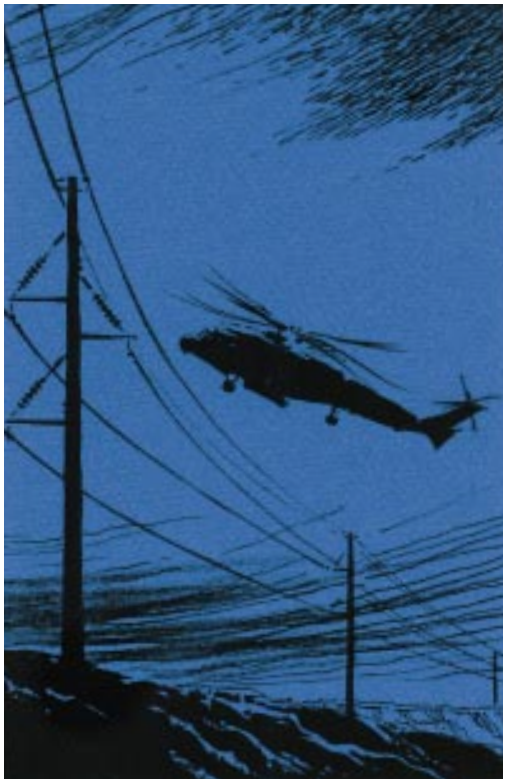
A flight of two HH-60H *Seahawks* was on a night training mission involving insertion and extraction of sea-air-land team members (SEALs) in desert-type terrain. The flight leader (mission commander) flew as number two in the formation. The lead aircraft was assigned primary navigation duties and all five crewmen were wearing night vision devices (NVDs).

Prior to the flight, the lead aircraft crew had plotted power lines on a 1:250,000-scale chart that was used for the entire flight. A 1:50,000-scale chart was available in the cockpit, but the power lines were not marked on it and this chart was not used.

The flight proceeded directly to the insertion landing zone (LZ) at 300 feet above ground level (AGL). The insertion was completed and the flight departed for another area near the planned extraction LZ. Later, the mission commander, without advising the other aircraft, climbed to 700 feet AGL to facilitate communications with controllers on the ground. The lead *Seahawk* stayed at 150 feet. The ground controllers cautioned the flight that the home field would be closing in 15 minutes. The mission commander then radioed the SEALs and told them they would be picked up immediately. Because they hadn't completed their mission, the SEALs declined pickup.

The mission commander's aircraft then descended to join the lead HH-60H. Meanwhile, a visual navigation error had resulted in the flight being two miles north of its assumed position. The lower helicopter had begun a slight right turn to fly up a wash (the dry bed of a stream which flows only occasionally). In the process, the crew chief and left gunner sited power poles silhouetted against the sky above a hill at 9 o'clock. The gunner called "Wires!" over the intercom. The right gunner saw power poles at 2 o'clock at the same time and also called "Wires!"

"Where?" asked the copilot, immediately after which the *Seahawk* struck two aluminum static wires strung 15 feet above three 230,000-volt power lines. The mission commander observed sparks in the night from the impact.



The mishap helo experienced a pronounced deceleration accompanied by the sound of wire scraping along the fuselage. Two main rotor blades contacted the wires. The tail rotor blade tip cap was torn off at the point of wire impact. When the wires broke, deceleration stopped. The aircraft continued in a descent, yawing to the right. It hit the ground 5 degrees nose down, 10 degrees right wing down, at 30 knots. The helicopter swung around, coming to a halt 180 degrees from the flight path, resting on its left side. One of the gunners suffered fractured vertebrae, but the others had minor or no injuries. The aircraft was destroyed.

Grampaw Pettibone says:

Shockin' ***Seahawks*****! Mixin' it up with 230,000 volts ain't no way to spend an evenin' in the desert. Plenty of blame to go around on this caper. This crew shoulda had a night proficiency flight before going out on an NVD starlight mission. No one in the crew had flown with NVDs in 40—count 'em 40—days! Plus, they hadn't flown in this desert area in nearly two years. And the mishap pilot in command had only 3.5 flight hours in the past 28 days, 2.5 of which comprised a daytime familiarization in the area 24 hours earlier. Of note, the route flown during the daytime fam was not the route flown the following night.**

The mission commander kinda left the other helo hangin' to navigate terrain alone, without guidance, when he climbed to improve communications. The two-mile navigation error just made things worse.

The lower helo erred in flyin' too low in the area of a charted hazard. Everybody knew where the power lines were and that they stood 80 feet AGL. The mishap crew believed that 150 AGL would be a safe altitude to avoid all power lines along the flight route. Right on—except for those areas in which the lines pass over a valley or a wash. Even so, the mishap pilot elected to fly below the presumed safe altitude. Impact with the wires occurred at 115 AGL over the wash.

The ***Seahawk*** **fleet readiness squadron trains all pilots to use a 1:50,000-scale chart for insertion and extraction of SEALs, because it provides more precise terrain navigation information. The chart was on board, all right, but not used.**

Poor show. Nuff said.