BRAVO Zulu

LCdr. Ken Germann, instructor pilot, and 2ndLt. Shane Alfar, a student pilot, departed North Whiting Field for a T-34 fam flight. They had briefed oil-system malfunctions, chip lights, and how a precautionary-emergency landing (PEL) quickly can lead to an engine failure or high-altitude power loss.

They climbed to 8,500 feet and turned toward the working area to start their maneuvers with spin training. After passing Brewton NOLF to the west, a loud bang came from the engine compartment, followed by grinding and whining noises. An instant later, the master-caution and chip lights came on.

Oil and smoke spewed from the engine compartment. LCdr. Germann took the controls and turned for Brewton, about five miles behind them. The propeller slowed and headed for feather, while the engine kept groaning. 2ndLt. Alfar pulled out his NATOPS pocket checklist and reviewed the PEL and engine-failure procedures. As LCdr. Germann moved the condition lever to feather the propeller, he saw the generator light on the annunciator panel. The generator went off-line as the engine spun down through 47 percent.

The engine continued to spin down and wasn't providing power. LCdr. Germann cut off the fuel with the condition lever, while 2ndLt. Alfar pulled the emergency fuel-shut-off handle.

The crew notified Brewton crash crew of their engine-out and glider-mode situation. While descending, the crew discussed turning off all their equipment, except the UHF, to save battery power to lower the gear. 2ndLt. Alfar was ready to manually drop the gear if they couldn't electrically lower them.

LCdr. Ken Germann and 2ndLt. Shane W. Alfar, USAF

LCdr. Germann made one bowtie maneuver to lose altitude, and then electrically dropped the gear.

With oil spraying across the windscreen and down the side of the canopy, the crew left the canopy closed. The aircraft touched down 100 feet past the RDO cart, and rolled to a stop directly on centerline.

A 12-inch crack was found in the reduction-gear box, blades were missing from the power turbine, and P3-Py lines cracked from vibration.

LCdr. Germann is a reservist with Training Air Wing Five, and flies with VT-3 on annual training duty.

While on the flight deck, Capt. Michael McCloud, a CH-53E pilot, saw what appeared to be a crack in the first-stage blade of an AV-8B engine. Capt. McCloud confirmed this finding with Capt. Sam Clark, also a CH-53E pilot. Capt. Clark informed the squadron AV-8B quality-assurance officer. Squadron maintainers inspected and confirmed the cracked blade. Capt. McCloud's keen eye prevented the likelihood of an in-flight catastrophe. The engine promptly was replaced, and the aircraft returned to flight status.

Capt. Michael M. McCloud, USMC, and Capt. Sam A. Clark, USMC