

Crew Resource Management

Situational Awareness
Assertiveness
Decision Making
Leadership
Communication
Adaptability/Flexibility
Mission Analysis

Starting No. 2

By ATC(AW) John D. Bounds

By the third month of our Red Sea cruise, our trustworthy SH-60B and the detachment's crew were growing accustomed to the routine of several flights a day. The cruise seemed to be flying by.

On this day, we were having some difficulties. When the aircraft had returned from its last mission, a maintainer doing the turn-around inspection found the oil-bypass PDI button on the No. 2 engine had popped. The ship's ground-power station was not working, either. While the ship's electricians worked the electrical problem, we decided to use the Seahawk's APU as the power source for our preflight check to facilitate the launch.

The detachment chief had issued a VIDS-MAF, and the mechs had said the job could be completed and signed off before the scheduled launch. The AD3 grabbed his tools, reviewed the publications, and collected the parts he needed. He then went to work under the watchful eye of the AD CDQAR.

The aircrew had ironed out the plan with the maintenance chief at the preflight brief. The LCPO had briefed them on the work the engine maintainers were doing. He also said mechs needed to leak check the oil-bypass bowl. Since the oil filter and O-ring were to be changed, a pressure check before the aircraft launch was required to verify its integrity.

The HAC and H2P preflighted the aircraft, and, after checking with the technicians, they started the APU for electrical and flight-control checks. Everything was fine, except the oil-filter swap was taking a few maintenance minutes longer than anticipated. The CDQAR stopped by the cockpit to tell the aircrew what was happening, and to tell them the mechs almost were done.



CRM Contacts:

LCdr. Scott Stroble, OPNAV N789F3
CRM Program Mgr.
stroble.scott@hq.navy.mil, DSN 664-7721

CRM Model Mgr., Pensacola, Fla.
<http://www.ntcnet.navy.mil/crm>
DSN 922-2088

LCdr. Mike Reddix, Naval Safety Center
(757) 444-3520, Ext. 7231 (DSN: 564)
mreddix@safetycenter.navy.mil

In the meantime, flight quarters was called away, and all stations were manned-up. The inspector and the technician were on the engine-work platform when the filter bowl was tightened. They watched as the packing oozed out the side, indicating the O-ring was damaged during installation. The CDQAR quickly climbed down from the aircraft and got a replacement gasket. On his way, he again stopped by the cockpit and explained what had happened. The pilots reminded him the launch time quickly was arriving. The CDQAR soon reappeared with a new O-ring and handed it to the AD3, who installed it on the bowl. Meanwhile the CDQAR turned and walked into the hangar. As he passed the cockpit, he gave the pilots a thumbs-up signal. Later, he explained what he meant by that signal was, “We are on it.”

The pilot in the right seat, however, took the signal to mean the job was complete, and he told the pilot in the left seat, “They’re done.” That pilot rogered up and continued with the start checklist.

The pilots never cleared the area again, and the HAC gave the ship’s LSE (a new guy) the signal to start the No. 2 engine. The ship’s LSE saw the signal and also noticed the maintainer on the engine-work platform. He initially was confused by the signal but figured it was something they must do for helicopter maintenance. The LSE returned the pilot’s signal without hesitation.

Focusing on his work and squatting in front of the engine, the AD3 was screwing on the oil-bypass bowl when the engine roared to life. Engine oil from the engine poured out the bypass bowl in a four-foot arc around the connection point. The AD3 looked away to protect himself and pressed his back against the engine-cowling door, trying to get as far away as possible from the jet engine. Fearing that the rotor head, just two feet above him, could engage at

any time if the rotor-brake slipped, he curled up into a small, shaking ball. Hearing the engine spool up as he walked into the hangar, the CDQAR immediately spun around on one foot, ran toward the aircraft, and gave the cut signal to the cockpit. The pilots instantly complied, and the engine whined down.

The detachment CPO had to restrain the oil-soaked AD3—who had jumped six feet to the deck—from confronting the pilots. He was hot and wanted to know why the engine had been started. The OinC and the LCPO also wanted to know how this could have happened. Needless to say, the flight was delayed to examine the chain of events that led to this near-mishap.

The OinC and the LCPO interviewed everyone, and they found communication had broken down because the APU was running. It was considered to be the major distraction. Hand signals had replaced all verbal communication on the flight deck. The non-standard thumbs-up signal the CDQAR had given the pilots meant one thing to him and another to the pilots. Since the ATO had gone through the start checklist up to “Engines...Start,” and everyone was in a hurry, the pilots failed to double-check both sides of the aircraft. The OinC also pointed out that an aircrew member should have verified all panels were closed before engine turn-up. The LSE’s lack of experience led him to repeat the signal given him without question. He should have said something didn’t look right.

Although the planned maintenance check was briefed and all hands knew basically what was going on, the OinC found that everyone wasn’t on the same page. The maintenance CPO and mech CDQAR were the only maintainers on the flight deck who knew what was required for the pressure check. Finally, at some point, we should have delayed flight quarters to finish maintenance. 

ATC(AW) Bounds is the LCPO for HSL-44 Det 6.