

# Crew Resource Management

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



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## Who Says Single-S Crew Cool

By Cdr. Kevin Bohnstedt and Lt. Kevin McLaughlin

We were two and a half months into our cruise. We had been in the Arabian Gulf for a month, and everyone was getting comfortable with the operations. I was scheduled for some tactical intercepts, specifically a night 2 v 2 AIC in one of the smaller air-training (AT) areas.

I was flying lead, along with Lt. McLaughlin (call sign Proton), who had just left a three-year tour at Topgun. With such an experienced section, we figured we had it wired. I went into detail on emergency procedures so we would be speaking the same language. Little did I know we would revisit this discussion later.

After the rendezvous, we began our first intercept. My first clue something was awry was halfway through the intercept. Our E-2 controller (King) asked if 302 had a problem. I ignored the question since I didn't hear a response. As the problem began to heat up, I noticed a light at my nine o'clock and stationary, which seemed to be in our AT. I thought the menacing red air forces were trying to swing my wingline.

I then heard King call, "Knock it off. Knock it off. Three zero two, do you have a problem?" I knew there was something wrong. No response from 302 meant he was either NORDO or having so many problems he couldn't respond. Either situation was bad.

I got a vector from King to 302, and I joined. On the goggles, I saw he had one engine at idle or off and the other in burner. I passed this to him over our control frequency and heard two mike clicks. I then asked if he was NORDO. Two more mike clicks. I told him I could hear his mike clicks and to give two for yes and one for no. I asked if he had a problem with his right engine (the one that appeared to be off). Two clicks. I asked if it was off. One click. Trying to narrow down the problem, I asked if it was oil pressure. Two clicks. The left motor actually was in military power but just appeared to be in burner because of the goggles.

I knew he needed to land ASAP. I noticed his hook was down, which was our signal to land immediately, but I asked anyway. He responded with two clicks.



# aters Don't Need ination?



Coordinating with King and our section of red air FA-18s who stayed in the opposite corner of the area, we began our journey home. I stayed in wing and passed to Proton that I would relay his calls. Two clicks.

The other pilots in our section looked over NATOPS to back us up. King passed to the ship that we had an emergency and would require an immediate landing. We were the last event of the night, and the pull forward would not be required. As we headed back to the ship, the plan of relaying all calls worked like a charm. On first call, I let the ship know about our situation. The ship was in a turn and would be ready by the time we were behind them. After discussions with the rep in CATCC, we agreed I would fly wing, with the lead emergency aircraft coming in half flaps, using both engines for the pass. Proton, an experienced FA-18 driver and LSO, knew the implications of the approach and understood all aspects of the trap. I would separate at about a mile and fly high cover to make sure he made it aboard.

Now came the time to adjust fuel for recovery. While Proton dumped down to

landing weight, I held my dump. I didn't want a possibility of two low-state Hornets flying around. To put us both at about the same flying capabilities, I decided to go to full flaps when Proton went to half flaps.

Then my training failed me. Proton flashed his lights twice to let me know he was going dirty. I misinterpreted this to mean "take the lead," which seemed to be odd, but I was flying out in front. Once I figured out what was going on, I got back into position.


The rest of the flight went without a hitch. Paddles knew that Proton was NORDO, and could receive and would respond by clicking. "Call the ball" from Paddles was answered by two clicks, followed shortly by an OK 3-wire.



Proton's only comment about the pass was he didn't recall the speed of the half-flap approach being as quick as it was. I recovered for my OK-3 after I had dumped down and was hooked in.

Troubleshooters found Proton's mask had a short in the mike cord. It had disconnected after the launch. The engine had leaked oil all over the engine bay.

The lessons learned were many. King had awesome situational awareness. They saw the 7600 squawk and then the 7700 and took action. Although we are experienced aviators, we still had some minor communication problems. I could have done better by remembering basic night signals. We train to transition the gear via a voice call. Maybe we should practice the light signals more often. The coordination between our sections was superb. The other section realized they needed to get out of the


way and to provide whatever help they could. The emergency aircraft has the lead; do what he wants. In this situation, it would have been easy to direct the action, rather than listen. Just because your emergency aircraft needs to do a low-fuel-weight approach at half flaps doesn't mean you have to. Full flaps will help you fly at lower speeds even with a heavier weight. Coordination, especially with the ship, needs to be done ASAP. With our recovery being the last of the night, they could respond quickly. Time from first emergency to 302 on deck was about 20 minutes—not bad for a separated section about 80 miles from the ship. Keep the controllers on the ship in the loop. Had the information not been flowing, there undoubtedly would have been questions about configurations, time and fuel. 

Cdr. Bohnstedt (squadron XO) and Lt. McLaughlin fly with VFA-15E.

## A CRM Analyst's Take: An Adaptability/Flexibility Portrait

By LCdr. Mike Reddix

CRM is a set of interrelated skills, and just like the brush strokes of a masterpiece, they work together to form a pleasant reality. The reality in this case being an OK 3-wire by a wingman who discovered he was NORDO with a poorly-performing engine 80 miles from the boat. How did this develop? The airborne controller developed time-critical *situational awareness* (SA). A follow-on, and necessarily *assertive*, "knock-it-off" call by the controller proved to be the wake-up lead needed to get into the game, assist in building an accurate SA picture of his wingman's predicament, and *lead* the effort to establish effective *communication* between all the players (controller, wingman, lead, and the ship). Pilots in the opposing section made a good *decision* to display *functional leadership*. They backed up the other section with NATOPS gouge and allowed them to concentrate on other aspects of their brewing emergency. Good mission planning (*mission analysis* in CRM speak) and training gave this crew a fall-back communication plan that they executed well.

This recovery was the result of good headwork and great across-the-board CRM, and could easily stand on its own merits as an example of any of the seven critical CRM skills. However, the real take-home message from this potential mishap is *adaptability and flexibility*. This section (and other players) altered their course of action based on new information (remember that good SA and assertive communication refocused the section). All of the players acted constructively under pressure and demonstrated leadership (including functional leadership by the opposing section). They implemented a backup plan by using effective communication and making timely decisions. Their real-time SA also indicated successful adaptation to a rapidly changing flight environment. Imagine the final portrait of this mission had each player not adapted to the changes. A failure at any CRM level could have created a domino effect of eroding communication, poor SA, bad decisions and... possibly disaster. 

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