

# Crew Resource Management

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



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## Under-Run: Under-Prac

By Lt. Larry Cooper

With an upcoming deployment, we were in the middle of our field-carrier-landing practice (FCLP). We also were practicing some formation flying. Most of the squadron pilots had not flown formation since the last deployment's fly-in six months earlier, and some had not done it in more than a year.

After the FCLP brief, the senior pilot briefed the formation flight. Because we lacked currency, he briefed the join-up in great detail, including using 180 knots for the rendezvous speed. He also briefed that we would not do any formation maneuvers we do on pilot-training flights, such as break-up and rendezvous. However, he did not brief under-run procedures. A rare event, other than on training missions, under-runs certainly weren't expected on this day. The decision not to brief this procedure would prove to be one we'd regret.

We planned a three-plane formation to NAS Oceana, which is 10 minutes away. We staggered our launch, and all three aircraft were airborne within 30 seconds of lead. From Chambers Field (NAS Norfolk) runway 28, we would turn about 180 degrees to head east toward NAS Oceana.

Lead checked in with departure and was assigned the first of two left turns. Dash-2 turned to get inside of his radius to commence the join-up. As lead rolled out on our assigned heading, Dash-2 stagnated in position without the advantage of the inside lane of the turn. Dash-2 checked his airspeed, which indicated 179 knots. As lead rolled out, he realized his airspeed was 20 knots faster than briefed. Lead made a radio call that he was fast and aggressively decelerated toward 180 knots. Almost simultaneously, the air-traffic controller issued the next left turn, which would take us to Oceana and put Dash-2 on the inside of the turn.

The Swiss-cheese holes were lining up. Dash-2 almost was in port parade position. Lead was decelerating toward 180 knots from 200 knots. Dash-2 was accelerating toward 200 knots from 180 knots. We reentered a left turn, giving Dash-2 the "advantage" of turn radius. All of these factors created an excessive closure rate. Dash-2 pulled back his power levers to slow a rapidly increasing closure rate. Too late.

Dash-2 had all the information he needed to know to under-run

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Photo-composite image.

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but didn't. The first thing he thought of was to separate his aircraft from the lead, and he did so with a sharp left turn and descent. Dash-3 wasn't on his mind at the time.

Because of Dash-2's descent and left turn, the pilot no longer could see the lead aircraft. The copilot took the controls and started flying an uncomfortable formation looking back and to the right at lead. Dash-2's pilot got on the radio and notified the flight of the situation. With everyone aware, we were able to reset for an uneventful join-up.

The few seconds it took Dash-2 to separate his aircraft from the lead and get out this simple call seemed an eternity. Dash-3 recognized a bad situation developing and kept his aircraft well clear.

We were fortunate and walked away with some easy lessons learned, instead of a mishap investigation. We did a very thorough debrief and decided it would be helpful to have some "back to the basics" training. The pilot of Dash-2 briefed the under-run procedures in detail at our next FCLP brief. We also planned a detailed formation brief to exercise all

An under-run provides a safe and orderly method for the wingman to pass below and behind the lead when excessive closure precludes a normal join-up during a rendezvous.

aspects of formation flying, followed by the full gambit of flight maneuvers. This training will serve to keep the maneuvers fresh in our minds and to refresh these perishable skills.

Take a close look at each mission. Analyze it in detail, and never take even the easiest maneuver for granted in your brief, particularly if it's a mission you haven't exercised in a long while. 🏆

Lt. Cooper flies with VAW-123.