Crew Resource Management

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

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Bow-On Recovery

By Lt. Kevin Sproge

As a nugget pilot on the second month of cruise, I finally spared some brain power for something other than taking off and landing on the ship at night. We were settling into a routine of mostly night operations in the Arabian Sea aboard USS *Enterprise* (CVN-65). I was tasked as red air as part of a division defensive-counter air (DCA) and spent most of the flight with altitude-hold on. The automatic-throttle control (ATC) was set at max endurance, as I "died" bravely for the motherland. The entire night was setting up to be uneventful as I checked in with red crown and strike on the way back to mom.

I checked in with marshal about 30 miles out. My marshal instructions were to be on the 130 radial at 22 miles and angels seven. The expected final bearing was 309 degrees.

I began my descent and headed toward my holding point while doing the standard check to make sure I didn't marshal 180 degrees out. I worked the standard timing and pushed on time.

"Marshal. 300 commencing state 6.3, altimeter 29.87."

"300. Radar contact 22 miles. Fly the CV-1 for the expected final bearing 309. Current final bearing 108. Mother's in a slow port turn.

At 6,000 feet, I was switched to approach and reported, “Approach. 300 checking in platform.”

“300. Approach. Final bearing one one five. Mother in a port turn for the expected three zero niner. Stay clean; I’ll call your dirty.”

On the descent, I was concerned with making sure my checklists were done, double-checking my altimeter warnings, getting on the final bearing, and leveling off at 1,200 feet. I also was keeping an eye on the airplanes that had pushed before me.

The next call on approach was directed to the Tomcat immediately before me. I heard, “115. Traffic launching off the bow.”

I thought the launch must have been delayed, and the call just was informative. The next thing I knew, I was looking at eight miles on the TACAN. I wondered how I had gotten to eight miles so quickly without realizing it and berated myself for being so far behind the jet for a night trap.

I dropped the gear and reported, “Approach. 300. Eight miles.”

Approach replied, “300. Dirty-up. Fly heading 240.”

I felt a huge thump as I passed well within 500 feet of another Hornet that just had launched off the ship’s bow and was climbing out.

Photo composite

Although the 70-degree cut to the left didn't make sense, one look at my HSI showed me right of course. I guessed CATCC wanted an aggressive correction early. I turned to 240, but, as I approached my programmed course line, I heard nothing from approach. Finally, I corrected back to 309 without waiting for a call. I overshot the centerline and was heading 020 to get back to centerline.

Shortly after I began the turn, approach called, "300. Right to the downwind 310. 300. When out of turn, traffic 12 o'clock four miles, Hornet your interval."

As I corrected to centerline, and with the ship still in sight, I had no needles, bull's-eye, or laser lineup. These problems didn't necessarily bother me because we'd had issues with all three systems on the ship. We had been shooting self-contained approaches at night during the cruise. What did bother me was being close to the ship without getting at least a CCA, and it seemed like more lights were in front of me than there should have been. The distance counted down much too quickly, and I found myself at two miles, at 1,200 feet, and feeling unable to make a safe approach.

"Approach. 300. I'm going to need a right 360."

"Calling approach, say again."

"300 is going to need a right 360."

"300. Negative. Fly the downwind heading 310."

"300. Continue left turn 260."

As my brain processed the question, "Did he just say turn downwind?" I caught a flash of a large form and position lights, and I heard the roar of engines at mil. I felt a huge thump as I passed well within 500 feet of another Hornet that just had launched off the ship's bow and was climbing out. I never saw him, and I had no time to react. How our jets didn't collide was simply dumb luck.

Part of my brain still was flying the airplane. I put in a break turn to the left in full blower just to get out from in front of the bow. As I got my wings level and tried to sort out what just had happened, I heard from the Tomcat in front of me, "99. I think the departure reference radial and the marshal radial are synonymous."

"300. Fly heading 270. We're launching off the bow."

"OK. 99. This is climax. You are correct. The ship is heading about one four zero. Listen-up for the final bearing. We're turning departures out to the right, so you're going to be entering downwind and then hooking in—so heads up."

Finally, my situational awareness (SA) kicked in. I turned downwind and managed to get aboard with some help from CAG paddles. Once I got the jet shut down, it took 10 minutes for my hands to stop shaking enough to undo my straps and climb out.

Obviously, a tremendous breakdown in SA had occurred, a breakdown that got me two miles in front of the bow during a launch. During the investigation, we listened to the tapes of departure, approach A and B, and marshal. The problem started somewhere between the bridge and CATCC. The bridge had passed to CATCC they were going to turn for a final bearing 309 at the time the ship was heading 110. Instead of turning left to make the expected final bearing, the ship actually turned right to head 140. While this change was going on, CATCC had assumed the ship would turn. Shortly after I switched to approach, marshal had the rest of the marshal stack delta four, so they could sort out what was going on.

Finally, marshal had announced, "99. We are doing a bow-on recovery; expect vectors to downwind."

Having already switched frequencies, I never heard this call. On departure, another Hornet had a close pass with aircraft 115, the Tomcat in front of me. He had reported to departure control that the departure and marshal radials were almost the same. Departure started giving traffic calls to the pilots launching off the bow.

Although some SA was out there (that never made it to my approach frequency before the near-miss), there potentially was enough SA for me to avoid the situation altogether. Approach gave me a turn to 260 and then a "right to the downwind 310" call. I had heard exactly what I expected to hear, and my brain interpreted the call as "Turn right to the final bearing 310." Perhaps the biggest lesson I took away from this entire incident is to listen carefully to every radio call and to make sure I am hearing the information correctly.

As pilot in command, I ultimately am responsible for the safe operation of the aircraft, and I need to take independent action if something doesn't seem right.

Lt. Sproge flies with VFA-82