

What Ship's Radar

Blind Spot?

By Lt. Steve Bellack

Our air wing was participating in a carrier-deck certification off the coast of sunny Southern California. We were attempting to maintain currency while the test pilots worked the Mode 1 approaches. It had been nine months since anyone in the air wing had done a night-carrier landing, and it was also the first time we flew IFLOLS (improved fresnel lens optical landing system, a.k.a. the ball) at the ship.

Anyone who has flown off the coast of Southern California is familiar with the overcast layer from 800 to 1,500 feet. On the first night of carrier qualification, everyone launched and entered the marshal stack for 20 minutes of comfort time. The night requirements were two touch-and-goes and two traps. My first pass for the evening on the new IFLOLS lens was SRDIM HIC-AR (stop rate of descent in the middle, high in close at the ramp) for the bolter. Everyone seemed to over-control the new sensitive lens (not many 1-wires that night). My next pass was an uneventful (OK) 4-wire. After waiting in the daisy chain to reach the catapult, I launched off into the bolter pattern. After another Hornet flew his touch-and-go, approach told me to climb to angels 1.2 and turn left to the downwind heading. I commenced my turn, level at 1,200 feet.

He told me he never saw my aircraft; he had only heard my engines.

When I was on downwind (approaching abeam), the controller-under-training called, "Four zero one, say altitude."

Aircraft 401 responded, "Angels one point two."

Immediately afterward I heard, "Four one five, say altitude."

I replied, "Four one five, angels one point two."

Both 401 and I wondered why they had asked. They should have known our altitude, because we were under positive IFR control. Five seconds later, I saw red flashing strobes under my aircraft (remember, at 1,200 feet we were IMC). I looked down and saw the top of a Hornet, approximately 50 to 80 feet below. I

immediately climbed and told the controller an aircraft had just flown underneath me, and I was climbing to angels 1.5. The controller-under-training then told 401 to climb to angels 2.0 and for 415 to descend to angels 1.2. I continued to climb and prayed 401 would stay level. Finally, the controller we'd had during our cruise took over and told me to climb to 2,000 feet and told 401 to remain level. I finished the night with two touch-and-goes, another bolter, and two more traps.

After landing, I met with the pilot of 401. He told me he never saw my aircraft; he had only heard my engines. I told him I looked at my altitude when I started climbing, and I was actually at 1,280 feet instead of the reported 1,200 feet. Had we been co-altitude, we probably would have collided.



Photograph by Matthew J. Thomas

The next day, we discovered 401 had rogered the call to 415 to turn downwind, but no one caught it at the time. When the tape was replayed, you could break out 401's call in the middle of 415's. The pilot of 401 realized he had made a mistake that led to the near-midair.

We wondered why the controllers never said anything to 401 after his touch-and-go. The controllers knew he was airborne. Since they waited until after his touch-and-go to talk to me, the controller should have called, "Four one five, turn downwind, break. Four zero one, continue straight ahead and climb to angels one point two." The next point would be the controller asking our altitudes just before we nearly hit. He must have seen the impending collision; however, he either didn't know what to do and froze, or his supervisor was not supervising very well. Finally, we talked

with one of the officers in CATCC, who said the ship had been operating on its third back-up radar system that night. I didn't know they had a third back-up system, but if their systems were degraded, they should have told me.

CATCC's restricted radar coverage ahead of the ship (blind spot) requires aircrew to exercise good lookout doctrine upon departure or in the bolter pattern within a two nm radius ahead of the abeam.

This doctrine is difficult to comply with in the Southern California operating area because of the overcast layer. How many pilots know about this blind spot? We polled our ready room, and just one person knew about the blind spot. He knew about it only because he conducted a JAG investigation 10 years earlier on a similar scenario that ended in a fatality. 

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