



# BEEAK TO BEEAK at night

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I was on my last Mission Qualification Training (MQT) sortie, a night, 2-ship, night vision goggle (NVG) sortie with bombs. My instructor pilot was also mission commander for a Large Force Exercise (LFE) in the Utah Test and Training Range (UTTR), and everyone but me measured their hours in "the Bone" by the thousands. I crunched some Operational Risk Management numbers for the sortie and while there were some challenges, we had a lot of experience to address them.

The plan was to push 2 minutes behind our Offensive Counter Air (OCA) north into the target area. We were the only aircraft with practice munitions, so a low level ingress made target area deconfliction easy. We were also the only night all-weather player, so we could count on our block, with an Instrument Flight Rules (IFR) altitude in case our Terrain Following (TF) system was bent.

We briefed a standard radar trail "black line" deconfliction plan. Planning

safe separation, safe escape and fragmentation deconfliction at 500 feet Above Ground Level (AGL) put our wingman "Two" at between 6 and 9 miles. As long as "Two" stayed or corrected to the planned course and followed the formation contract, we would be deconflicted. If "Two" fell out of position and we had to execute separate bomb runs, our contract was to correct to the black line and lead was going to bump up their altitude to 1,000 feet AGL. This should have kept us separated by 500 feet if we stuck to the formation contract. We also had the air-to-air TACAN to back up our formation deconfliction plan.

Mission planning, ground operations, air refueling, and the flight out to the UTTR were uneventful. We had safe, smart deconfliction plans for employment — there was no way we'd come close to another aircraft (so we thought). We marshaled in the south part of the UTTR, "polled the forces," and discovered we lost one of our four SEAD assets — no sweat.

The formation pushed within a second or two of our planned time and performed a letdown. Before we descend to our preplanned safe IFR altitude, we couple up TF to flight controls and we can let down to terrain following altitudes of 1,000 feet, in all

we pressed. Additionally, our protection was directly overhead and targeting the bandits. Shortly after some valid shots and kill calls against our OCA, Red Air targeted the 2-ship of Bones. At this point, we were in the flats with no terrain to hide in. Our GCI was giving us

get while "Two" continued to head east. It took several radio calls, and we finally used our High Frequency backup radio to direct "Two" into the target. While we were striking the target on a northerly axis, and fairly close to the plan, our wingman had driven significantly east before finally turning back to the target and was attacking from a west-north westerly heading. As formation lead, we stepped it up to a 1,000 foot altitude as briefed, although none of this would come out until debriefing.

After releasing our practice munitions, we turned south at the limits of the TF set to remain in the UTTR. At this point we were listening up for our bomb scores and trying to establish

just exactly where our wingman was. We were expecting to pick him up turning off target to our deep six.

We pushed it up and extended out of the threat area. We started searching for F-18s that we'd have to find before we climbed up to our IFR altitude. The mission commander was fairly busy, as we lost a couple of strikers, our OCA was regenerating, and our wingman was stripped. We saw what looked to be a manned site in our left windscreen (flashing light in the UTTR). The mission commander commented it almost looked like a helicopter, as it looked like it was getting bigger and it was staying in the same place in the windscreen. There was a very short discussion on why a helicopter would be in our block. (We were quite sure the LFE owned the airspace, and that we were,

the play-by-play to the merge and we could see Red GCI was directing the merge. We notched right to defeat the shots and extended to the east, rapidly diverging from our planned attack axis at 600 plus knots indicated air speed. We were now deep into our contingency plan of correcting back to the planned track line. We had some swing-role strikers that quickly targeted the Red bandits and allowed us to turn back hot to target. Up to this point, nothing had been unusual, but it was starting to get complicated fast.

"Two" was having minor radio problems, but nothing that would keep them from executing the plan. Also, at 6 to 9 miles low altitude at night, aspect angle is difficult, if not impossible to judge — and range — hence closure is also tough to discern.

Formation lead called a 45-degree bank turn north into the tar-

in fact, where we should have been.) I switched some of my Terrain Clearing Task attention to Mission Tasks — determining what this telltale light actually was. Just as I acquired it cross-cockpit, we heard the sound of "Two's" engines, and our wingman passed incredibly close behind us. Our air-to-air TACAN backed up our worst fear. Thank God it never read zero.

We were just west of Wildcat/Kittycat Mountain. While our plan of using separate clearance plane altitudes appeared to be a good plan during mission planning, with the azimuth differences and the TF logic while crossing a mountain, it put us dangerously close in the same airspace. That is, while "Two" was supposed to be flying at 500 feet and we were at 1,000 feet when flying over the mountain, the TF logic puts us at the same altitude until "Two" could get established over level ground. The end state was a high aspect rejoin at roughly the same altitudes at night. AGL deconfliction plans aren't very feasible in mountainous terrain, especially with the TF flying the jet.

It was a long quiet ride home. What caused this near miss? We all felt the anger welling up shortly after landing like someone had tried to kill us. We spent the next 2 to 3 hours reconstructing the fight, debriefing our bomb scores and mostly trying to find the root cause of our formation buffoonery.

The flight lead should have been more directive once our wingman was stripped. Accepting that there's another aircraft flying within 500 feet of your altitude without positive control or deconfliction is not an option. We had a formation contract, but lead violated that and turned back into the target area without hearing a crisp answer from "Two" due to radio problems. There's really no excuse for this. Our standards are to wait for the response before starting your reaction during

administrative maneuvers to assist with formation integrity. Finally, the logic of being able to separate your altitudes by 500 feet when at night and low-level going 600+ knots and varying your mean sea level, is not an option.

The three execution errors leading up to this near miss were not having a sound low altitude deconfliction plan, executing an administrative turn without hearing

a response from the wingman, and not being directive to positively control the formation. I know that all three of these execution errors can be traced back to the root cause of not having sound formation contracts and sticking to them. Debrief any deviations, and hold your formation responsible for them. Deviation from formation contracts is dangerous and can get you killed. ▶



## We heard the sound of two's engines ... our wingman passed incredibly close!

weather. After stabilizing at 1,000 feet AGL, we can go lower as we did in this case to 500 feet AGL. We can perform this in instrument meteorological conditions at night, and regularly do. We were lucky enough this night not to have weather, so we could take advantage of our NVGs and use some terrain during our TF letdown to mask us from Red Air.

Clover Ground Control Intercept (GCI) officers were playing roles of Red and Blue GCI in this exercise, so we planned and flew along the western side of Fish Springs to terrain mask from Red GCI's radar.

We noticed some Red Air off our left wing for about 50 miles as we set up our run into the target at Wildcat in the northern area of the south UTTR. They did not appear to be merging on us and we weren't getting any Radar Warning Receiver indications; so