

Below Mini

By LtCol. Martin Rollinger, USMC

Here we were, two seasoned naval aviators departing an East Coast Marine Corps Air Station on a Sunday morning for a squadron deployment out west. We filed a stopover flight plan with a fuel stop in Tulsa. I was the flight lead. The departure weather at homeplate was fine. The weather on the first leg was forecast to be nasty, with low ceilings at our emergency divert fields along the way, then clearing as we got to the backside of the storm to the west. The weather in Tulsa was IFR but forecast to be better than 3,000 and three when we arrived.

Technically, we didn't need an alternate, but we planned to use Fort Smith just in case. It was 80 miles short of our destination. The weather there was at minimums but forecast to be VFR by our arrival time. Our fuel planning showed that, even with the slight forecast headwind, we would arrive at Tulsa with enough gas to divert back to Fort Smith.

Ground operations did not go smoothly for my wingman. He was troubleshooting major

problems as I sat in marshal for an hour waiting for him. By the time he was ready to go, our fuel states differed by almost 1,000 pounds. You guessed right: I chose to press on, instead of asking for gas because that would have delayed us further. I would not have enough gas at the destination to fly back to the divert base. But, the divert field was this side of the destination. Besides, we legally didn't even need a divert.

Takeoff, climb out, and level off were normal. Wow, the weather looked nasty below us. We checked the winds. OK, just a few more knots than forecast. What speed should I have flown? A quick look at FPAS (the Hornet's flight-performance advisory system) and I started flying the mach number given for maximum range.

The plot then thickened. I recalled that I was carrying MERs (multiple ejector racks, which produce lots of drag) and not the Mk-82 bombs the stores-management system (SMS) thought I had on board. The ordnance personnel had entered the incorrect ordnance code into the SMS, and I hadn't entered the proper code during preflight. So, FPAS was lying to me—garbage in, garbage out. It wasn't going to help me get the maximum fuel performance



FA-18 photo by PH2 Shane McCoy
Photo-composite by Patricia Eaton

mums

out of my jet, nor was it going to give me an accurate reading of how much fuel I would have at my destination. It would be overestimating fuel remaining at destination. I would have to figure all the fuel numbers manually, which is not common in a Hornet.

The flight-level winds started picking up. I was unable to make it to Tulsa with minimum-on-deck fuel and started looking at other alternatives. We called Columbus, Mississippi Metro. "Update me on Fort Smith," I asked.

"Fort Smith is currently five hundred and two," they replied.

Now below minimums. Fort Smith was getting worse, instead of better. Would it clear in time? We kept looking.

"Columbus, how's your weather?" I asked.

"Weather is bad here, and we don't open for another fifty minutes," they replied.

That didn't help. What about Millington? Disregard. I only had high approach plates, and Millington wasn't listed in them. How about Little Rock? Weather there was below minimums, and they don't have a high approach, either.

Talk about a rock and a hard place! I didn't have the gas to turn around. The emergency diverts were unavailable along the route because of weather and operating hours. I couldn't safely make my destination into this headwind, and my alternate hadn't cleared as forecast. I remained calm and stayed focused. The answer was coming. How were the winds? Still bad.

"Center, we need to re-file and change our destination to Fort Smith Municipal," I called.

My wingman had enough gas to shoot the approach at Fort Smith and go on to Tulsa if needed. I didn't have the gas, and I was committed now.

One last weather update. "Fort Smith, six hundred and two." One hundred feet below TACAN minimums. I wished I had a civilian

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ILS in this plane. I couldn't legally do this, but I had no choice. What about the ASR? ASR minimums were the same, so that didn't help.

What if I shot the approach from the other direction? Minimums were still the same.

We briefed that I would shoot my first ASR approach to minimums, and, if I could see the earth under me, I would cheat down until I could see the field. If I didn't see the earth, I would try another approach and cheat even without seeing the earth. I backed up the ASR approach with the TACAN and Hornet air-to-ground radar (a radar map of the approach end of the airfield that aids in finding the landing environment, commonly referred to as a Hornet approach). As I leveled at 1,000 feet MSL (500 feet AGL) I could see the ground. As I let myself down to 900 feet, I was able to see the runway and land.

Lessons re-learned: (1) Take the extra gas, you might just need it; (2) Turn around while you still can; (3) Carry the low approach plates for the area you are flying over; (4) Hornet guys—make sure that all stores are properly identified in the SMS to get accurate information from FPAS airborne; (5) The FA-18 needs a precision-approach capability, other than PAR, that is compatible with civilian facilities. 🛩️

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