

Engine Over Air

By Lt. Paul Campagna



Photo by Capt. William E. Gortney

My last mission during Operation Enduring Freedom was to be on call in a CAP position in southern Afghanistan to support U.S. ground forces. The weather reported high cloud layers in the country and light turbulence at our tanking altitudes. I was loaded with 3,000 pounds of ordnance, and the mission called for a daylight launch and a night recovery.

I had hoped for an uneventful mission but instead would receive an engine caution that would remind me how a mission never is over until you are safely on deck. The command just had talked about complacency and reminded us the mission required our full attention—we should not be lax, even after more than 30 in-country missions.

Back to the beginning. The launch and rendezvous went smoothly. There were some cloud layers as we made our way across the beach, and the weather deteriorated as we entered the coun-

try. We topped off our fuel tanks, then headed to our CAP station. After spending most of our time looking for a hole in the clouds where we could hold, we returned for our second trip to the tanker. We transitioned to night flight as the sun set. I set up my cockpit for NVG flight and prepared to don my goggles for our final vulnerability window on CAP. The weather was poor, with clouds and haze to 32,000 feet.

The second tanking evolution was a little more exciting: There was more turbulence on the tanker, and we were in and out of the clouds. Our area was quiet, but we still had one more vulnerability window to cover. We started working the location of our last tanker as we got back on station and goggled up. The tanker we originally were scheduled for didn't have enough gas to top us off for our return to the ship, so we hit another tanker on the way out. By the time we got to the last tanker, they were changing altitudes and tracks to find clear areas. Unfortunately, they could not find any clear air, and, after our rendezvous, we were in a haze layer.

There was a section of aircraft in front of us, and flying form was difficult without a horizon or moon. I elected to stay on NVGs while we waited for our turn in the basket. I wondered how the last mission could be worse as I started to experience vertigo with a bad case of the leans. That's when I heard the master-caution tone and

Problems

Afghanistan

saw the master-caution light.

I glanced at my display and saw an AMAD-pressure caution, which meant the gearbox powering my generator and hydraulic pump was low on oil. The procedure calls for turning off the affected generator, and securing the engine within 30 minutes.

Since it would take at least an hour to return to the ship—longer with only one engine—I would have to shut it down. The problem was I didn't have enough gas to get home and couldn't tank with only one engine. I told my wingman about the problem, and he backed me up on the procedures and quickly developed a plan. I would leave the engine on until I got a full tank, then secure it, return to the ship, and restart the engine for landing. If the engine failed before I could tank, I would have to do a single-engine approach into our divert field in Pakistan. Hoping the engine would hold out, I waited for the section on the tanker to clear, which took about 15 minutes. They were at a lower fuel state and were nearer their divert fuel state.

I made it through the tanking with no more engine problems and secured it when I was clear. The tanker slowed down and continued to drag my wingman south. I soon found out how difficult it would be to limp the aircraft home. With a full tank of gas and all my ordnance, I literally was falling out of the sky soon after going single engine. Slowing to 200 knots, I was unable to maintain FL280—where the tanker was, and descended to FL190 to hold airspeed.

My wingman got his fuel and joined me on the egress. This led to more considerations. We were unable to maintain the required corridor altitudes, so we declared an emergency. We also would not be able to make the recovery time and

had to coordinate our late arrival with the ship. An ordnance-jettison area was activated in case I couldn't restart the engine.

The weather cleared once we were out of the country, and my wingman and I planned for contingencies over the radio. We eventually made it to the ship. After reviewing the procedures with the CATTC representative, I restarted the engine and made an uneventful landing.

Here are my takeaways from the experience. My wingman and I had flown together, and we were used to communicating and making decisions. He had several useful suggestions, such as activating the ordnance-jettison areas. We talked about contingencies. This helped me avoid working myself into a box I couldn't escape.

I didn't want to divert to a strange field at night with a single engine. I should have been more assertive on the radio, getting into the tanker, so I could have shut down the engine sooner. I would have lost support as I headed out on my own while my wingman tanked, but this probably was a better course of action.

Finally, the mission never is over until you are back on deck. This incident happened on the last tanking event of my last mission. We had received numerous briefs on not "dropping our packs" before we were out of the theatre, and we were just as attuned to our situation at the end of the operation as at the beginning. If I had been lax, I wouldn't have had the fuel numbers or field information on hand for a single-engine divert. Making good decisions and planning for contingencies allowed me to close out my experience in Operation Enduring Freedom on a positive note, rather than on the deck in a foreign country. 

Lt. Campagna flies with VFA-97.