

Weather or Not to Press

By Capt. F. Phillip Peche, USMC



Photo by Cpl. Alicia M. Garcia. Modified.

When the ready-room phone rings, the ODO answers and holds out his arm parallel to the deck, with his fist closed and palm facing down. Everyone and everything stops; there is instant silence as everyone waits in anticipation. A thumb up means urgent CasEvac; a thumb down means false alarm. In this case, we get a thumb up.

Everyone sprints, the CasEvac bell rings, APUs (auxiliary-power units) light off within seconds, engines start and rotors turn. Runners, dispatched with paper copies of the 9-line, pass the mission to the HACs through the pilot windows. Mercy XX up (Tycoon XX up, if launching with an escort), taxi, takeoff—usually within five to seven minutes of notification. We expect 99-percent torque to the pickup zone, load casualties, lift, 99-percent torque to the drop-off zone, RTB, refuel, and stand by for the next mission.

“Zero to hero in six minutes” is the mantra of the CasEvac pilot. Weather minimums, degraded ASE (automatic stabilization equipment) and flight-minimums SOPs can be waived with battle-captain approval.

We’ve found that some of the best ORM comes in the form of what we call “debriefs from the floor.” We have two briefs everyday: one for the day crew and one for the night crew. Each brief has an intel and friendly situation update, an ODO, MC or mission coordinator (to cover such things as the line-up and impromptu section standardization in cases where crews launch without briefing together), flight lead, and cockpit briefs. The first part of the MC brief is called “pilot debriefs from the floor,” also known as lessons learned or ready-room confessionals. That’s right, twice a day we get lessons learned. Below is just one such lesson.

Weather is bad: Torrential rain and multiple low-cloud layers line the sky in all directions. Our home base observes marginal VFR. Our destination reports IFR. It’s about 11 p.m., with zero-percent illumination: a true low-light night. The phone rings—urgent CasEvac. The pickup is a Level 2 medical facility, and

the drop off is a Level 3 medical facility. Crews man up, and we launch as a section. I'm in the Dash 2 as the commanding officer's copilot. I'm on the advance party for the squadron, and, as a flight leader on the night schedule for some time, I'm familiar with the night environment in the AO. This is the CO's first night flight since the squadron had taken over the mission less than two weeks earlier. Tonight's flight is supposed to be what we call a "hospital run," moving routine MedEvacs in and around the different hospitals in the AO, and flying return-to-duty personnel back to their units. However, this flight is not to be a hospital run.

The flight into the Level 2 medical-landing zone (LZ) is uneventful. The casualty is loaded on the lead 46, and we take off for the Level 3 facility, 35 miles to the north. As we cross north of the highway connecting Baghdad and Fallujah, the visibility deteriorates to less than a mile. The illumination provided by the cultural lighting of Baghdad and the outlying areas is behind us. The ambient conditions yield no visible horizon and scintillation through the NVGs.

The CO immediately suggests over the interflight frequency, "Let's look at diverting to the other Level 3 facility in the vicinity of Baghdad."

The section lead acknowledges receipt but says the weather looks like it is getting better to the north. In fact, the weather, while not quite 1,000/3, is not bad. The burn-through provided by our NVGs generates a partial horizon. We arrive at the medical LZ, and our corpsmen offload the patient. Now it is time to RTB.

Airfield metro, collocated with the Level 3 facility, is forecasting rain, reduced visibility, and multiple cloud layers beginning at 1,000 feet, with scattered clouds at 500 feet. The weather is coming in, but they are predicting a lull. They also report the current weather to the south is VFR, and, once we pass through the local bands, the weather will improve.

There is another problem though. En route to the Level 3 facility, my attitude indicator sticks a couple of times. I troubleshoot the problem, and the indicator appears to be fixed. We reposition to the fuel pits, take on fuel, and depart. The rain and low clouds significantly reduce visibility, and our section lead diverts the flight back to the airfield. We land at the medical pad to wait out the weather, further analyze the situation, and identify the hazards. Metro observes marginal VFR

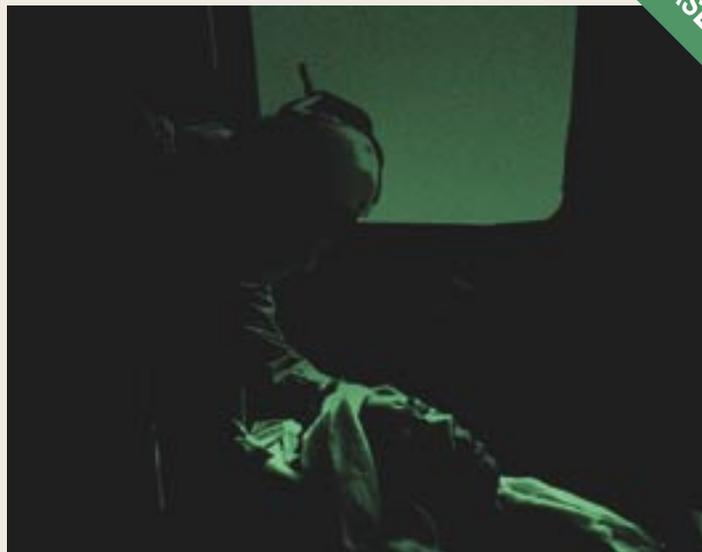


Photo by PH2 Jeffery Russell. Modified.

at the field, scattered low-level clouds, and a 6,000-foot ceiling.

Our section again takes off for home base. One minute into the flight, a master-caution light illuminates—a transmission-chip problem. We make a precautionary-emergency landing (PEL) to a taxiway at the airfield. After we check the chip detector, clear the small flakes, ground turn for 45 minutes, recheck the chip detector (no chips), and refuel, we determine the aircraft is safe to fly home.

The weather, however, has gotten worse, but metro still is reporting VFR conditions at home base and all points south. We agree the ideal solution would be to separately file IFR, but filing IFR in a helicopter is not a possibility in Iraq: There is no established low-altitude IFR structure, and many of the instrument approaches are not fully certified.

Following a discussion among the section leader and the CO, we're to RTB. Our proposed flight path is south to Baghdad and across to our home field. This route takes us toward cultural lighting, thus providing a visible horizon and additional diverts en route, should we have another chip light (we identify the most dangerous hazards, implement controls and make prudent risk decisions). It appears we have dodged the weather by flying below the lowest cloud layer, but then we enter inadvertent IMC and lose contact with lead—for the first time.

I'm at the controls and turn away from lead, climb to 1,500 feet (our briefed procedure), and break out between cloud layers. I ask for barometric altitude-hold on. The CO and I adjust the low-altitude warnings on our radar altimeters to provide an early indication of

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vertigo and an unintentional descent. We also ask lead to turn his blade tip and IR position lights to maximum brightness. Flying IMC in a combat zone is not a comfortable feeling.

We spot lead; he is a little lower than us. We give him a steer and join on him. The weather appears to be marginal VMC direct to home base, but that path will take us through a high-density safire (surface-to-air fire) area. After weighing all the risks, the section leader decides to press south to Baghdad, as briefed, back into the weather but in the direction of cultural lighting.

Lead begins a descent to get under the clouds; we penetrate. We're now flying with one rotor separation in IMC. Although I'm an experienced pilot, I've never flown a helicopter-section approach or been in the clouds as a flight in this type of weather.

I call over ICS to the CO, "I would be more comfortable with you flying."

He replies, "Roger," and we change controls.

In hindsight, this control change makes perfect sense. The CO, having been in this type of situation before, is much more comfortable flying at one rotor separation. He trims the controls for straight and level flight. He's flying "against the control pressures," so, in the event we lose contact with lead, taking separation and preventing spatial disorientation will be a less difficult endeavor.

Unfortunately, we again lose contact with lead at one rotor separation. The CO takes a 20-degree cut away from lead and begins, for the second time, our inadvertent IMC, lost contact, and break up. We reacquire lead within a few seconds, and join back up.

On ICS, I say, "Sir, I think we should dissolve the flight and get single-ship approaches back to home base."

About then, we see the weather clearing to the southwest—direct to our home field. Immediately, the CO radios, "We are going direct to home base."

The flight turns right, heads west, climbs through the clouds, and breaks out in between layers. The weather isn't great, but it is much better than it was, and we're able to back off a few rotors from lead. The CRM in my cockpit has been superb thus far, and we are almost home.

Passing Fallujah, lead checks in with DASC (direct-air-support center), and all is quiet.

However, we hear another flight of 46s check in on the DASC frequency; they are in Fallujah. Great, more traffic! They report lifting and are headed to our home field. We contact them over DASC, and they are 500 feet and below; we are at 1,500 feet. At least we have altitude deconfliction, but what will happen when we descend to land? Where are they? We acquire visual contact of the other flight through a break in the cloud layer but then lose them.

After crossing the Euphrates River, passing north of a couple of switchbacks in the river that is another high-density safire area, we descend through an opening in the clouds. We check out with DASC and check in with tower. The other flight does the same, and they report an identical entry. The geometry between the sections mitigates the potential of a midair, provided each section maintains their briefed routes and holds their current airspeeds. We are descending to their altitude, while ensuring lateral separation from their reported position.

Another flight of 46s checks in with tower, and they are on a left base for the right parallel runway. We are on a long final for the left parallel, and the third section is on final for the left parallel. No section has a visual on the other, and weather and visibility are degrading rapidly. Everyone is diverting to our home field before the weather closes in.

I hear, "Traffic in sight," over tower frequency.

At least one section has someone in sight. Shortly thereafter, our lead reports both sections in sight over tower's frequency, and we now see one of them. We appear to be home free, but we still don't see the section on base for the right parallel. I see lights heading toward us. I come on the controls, pull power, and turn away from the traffic. The CO and I simultaneously look under our NVGs and surmise that the lights actually are vehicles on the ground. The section on base is in front of us, and they are no factor. I briefly turn on the overt anticollision lights for good measure. We are on short final. For one of the few times in my aviation career, I truly appreciate

the words “short final.” We are over the runway, on the ground.

Rolling into the fuel pits, we check in with the ODO, who asks, “How is the weather?”

Without skipping a beat, the CO retorts, “Dogcrap!”

On deck, many crises have been averted; the calm and calculation we displayed in the air have manifested into emotional banter over the ICS. We have made it. With refueling complete, we air transition, taxi back to the line, shut down, and debrief in the ready room. While we are gone, one of our sections launches on an urgent CasE-vac. The CO contacts them, tells them to divert to home base, and they drop off their casualties at our home field’s medical pad.

The copilot of our section’s lead aircraft just had finished his night systems-qualification syllabus on a training flight the previous evening. This was his first night-combat mission. He was visibly shaken, as we all were. All I could think was, “Man, I’m glad I was flying with the CO and not him.”

Our lessons learned to the day crew were:

ORM does not end in the ready room. Time-critical ORM is a continuous process that facilitates superior decision-making throughout mission execution.

Metro here is not quite as robust or capable as it is in CONUS. Also, real-time weather reporting lacks accuracy, due, in large part, to the unpredictable nature of the weather in this region.

In reduced-visibility situations, turn up the appropriate exterior lighting on all of the aircraft in the flight to make it easier to fly formation and see lead.

Consider single-ship operations in bad weather for



urgent CasEvacs, or have lead stay higher over friendly territory in radio contact with the CasEvac aircraft.

If you don’t have the weather, don’t press the situation. Bring urgents (patients) back to the Level 2 medical facility at home field for possible ground transportation.

While NVGs allow you to look through some clouds and obscurations, they can cause you to fly into IMC conditions without realizing it. When operating in marginal weather, your scan must include looking under your NVGs to see inadvertent IMC situations.

Discuss contingencies thoroughly during flight and cockpit briefs.

Master the basics: Sound and precise air work, instrument scan, and ORM and CRM are the most important aspects of night and combat flying. On today’s battlefield, the chances of crashing your plane are much greater than the chances of being shot down by the enemy. 🦅

Capt. Peche flies with HMM-364.