## The Cross Country

Don't be complacent and ignore what's going on around

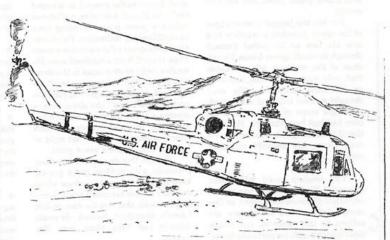
By Col. Gary D. Koch Deputy Director of Safety

B ack in the late 60s and early 70s when I flew missile support at Minot AFB, North Dakota, ("Only the Best go North" was their motto), any flight that took us over 75 miles from base was considered a "cross country." It was a very rare opportunity indeed when we did the "real thing."

I was thrilled when I was selected to go to Indian Springs Auxiliary Field, Nevada, to pick up a fairly new (1966 model) H-1F helicopter. Being an experienced helo pilot and instructor, it was only fitting I take 2d Lt. Smith with me to show him the ropes. Plus, we took a highly qualified flight mechanic, Sgt. Jones, who could kick the machine in the right place if we had a problem.

Our flight-planning was meticulous. Stops were based on an average no-wind speed of 90 kts; in three hours we could cover 270 miles. We cut up ONC charts for each leg of the trip and ensured we had a corresponding Texaco road map to refer to in case we had to fly IFR, (I follow roads).

With all our flight planning done, the appointed day to depart for Indian Springs arrived. We flew to Las Vegas and were met by the unit maintenance officer, Lt. Black. He told us the aircraft would be ready for functional check flight (FCF) the next day. He also informed us there were no quarters at "The Springs" and



we'd be billeted in Las Vegas at the Stardust Hotel. (If that was the way they wanted it, it was okay with me.) Lieutenant Black drove us to the hotel, gave us the keys to our transport, an Air Force blue station wagon, and a map to get us to work the next day. He finally left, leaving it up to our imagination to find something to do and, saying only "Good luck!" (What did he mean by that?) The next day dawned brightly as we drove out of Las Vegas. We knew the FCF would be extensive, so we didn't plan to leave for home until the next day. Everything went well with the flight test but there seemed to be a discrepancy with the paperwork. The unit hadn't complied with a TCTO requiring extensive sheet metal work and installing a cowling latch. Support to do this had to come from Nellis AFB, about two hours away. There went our plans to leave the next day. Darn! We wound up spending two more nights in Vegas before the helo was ready to go. My wallet was ready to leave the day before. (Now I know what the maintenance officer meant with his "Good luck!")

Our flight planned route would take three full days to reach Minot. Leg 1 included the garden spot of Cedar City, Utah, en route to Hill AFB, Utah. Leg 2 would take us to Rock Springs and Casper, Wyoming. The third day was the longest. We'd zip into Ellsworth AFB, South Dakota, and continue to Bismarck, North Dakota, for our final gas stop before heading up U.S. 83 to Minot. The trip was a piece of cake. A tour of the west with Uncle Sam footing all the bills was a great TDY. (For some reason however, I didn't think the per diem covered all our expenses in Vegas.)

Day 1 went as planned. Weather couldn't have been better and the scenery through southern Utah was spectacular, especially Zion National Park. With our ar-

## **Flight**

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rival at Hill AFB and the first day's travel behind us, we felt confident the rest of the trip would be as smooth. Good weather was forecast with favorable winds the entire trip. That night we checked out the "Covered Wagon" in the O'Club, had an early dinner, and retired to rest up for the next day's adventure.

Day 2 was mild, temperaturewise, but skies were overcast with possibility of rain. (The forecaster had lied the night before when he predicted good weather.) However, current route forecast of 3,000 overcast, 10 miles vis, light winds, and drizzle was well above our minimums. Without giving it a thought, we pressed on with our mission.

The flight to Rock Springs was boring. The barren terrain didn't offer any changes as far as the eye could see. One thing we did notice, though, was the overcast getting darker to the north and the ceiling seemed lower as we flew east. We knew we had a terrain elevation increase of 1,400 ft between Hill and Rock Springs which explained the lower ceiling. When we landed at Rock Springs the Flight Service Station (FSS) representative confirmed our suspicions.

The ceiling was now 1,400 overcast, still well above our minimums. He said he'd received a PIREP of rain to the east and northeast in the direction of Casper. (Great! That's where we were headed.) Lieutenant Smith finished flight planning and Sergeant Jones wrapped up the refueling and oil level checks. After a bite of lunch we were ready to go. "No need to recheck weather," I told Lieutenant Smith.

"It's only been an hour since we were briefed. Besides, we can go down to 700 and 1 before thinking of having to land." Famous last words?

Off we went with "Have a nice day" from the FSS agent ringing in our ears. The air was smooth at 1,000 ft AGL and the OAT had dropped about 10 degrees, making for a comfortable flight. It was my leg so I was doing all the flying, Lieutenant Smith the navigating, and Sergeant Jones sitting in back enjoying the scenery. While flying along, the lieutenant and I talked about navigation and map reading-how to always project yourself along the route of flight well ahead of the aircraft, looking for trouble areas and prominent terrain features (like the 8,000 and 10,000-foot peaks ahead of us) and how to maintain ground track in relation to obvious navigation aids. Pilotage can be difficult, especially if you don't take all things around you into account. During our discussion, I was aware the terrain was gradually rising. We'd climbed to the point where our rotors were stirring up the bottom of the overcast cloud deck. We were still approximately 800 ft AGL with visibility around 5 miles in light rain showers. "Holy Smokes! What was that?" I yelled. A streak of light like a bar of white hot steel flashed through the cloud deck and hit the ground off the right side of the helicopter, igniting a small scrub bush on the ground. "Boy, that was close. That had to be only a half mile away, if that," I said. It started to rain buckets now and I had to do most of my eyeballing out the side window to clear my flight path, since the windshield wipers couldn't keep up with the steady downpour.

"Hey, look at that," said Sergeant Jones, pointing out the right side of the aircraft.

We saw antelope running along below our helicopter.

"Gee, they look big, and they sure can run fast to keep up with us," I said. Then it dawned on me. To see better, I'd subconsciously slowed to 40 KTS and descended to get away from the clouds. Those antelope were only 50 ft below our craft and doing a good 20 mph. They were gracefully running along, occasionally jumping or going under a fence in their path.

The vis had really gone to pot now. We figured we were only 20 minutes from Casper as "the crow" flies (but he wasn't flying in this weather). The rain and everdecreasing ceiling had forced us to a hover taxi pace at 10 to 20 ft AGL. Then it happened. Because of the reduced visibility (about a quarter mile), we had hover-taxied ourselves into a "coulee," or small box canyon at 7,400 ft MSL. We saw trees on both sides and in front. We were at a dead-still hover without enough room to turn around to find out what was behind us, eliminating the option of backing up. "Damn, I wish we'd checked weather again after lunch in Rock Springs," I said under my breath. Little did I know, we'd have learned a front was moving through the Casper area faster than originally forecast. Had we waited another two hours, the front would have passed with nothing but clear air behind it.

But, not knowing that, I was stuck in a coulee trying to figure out the best course of action. I asked Lieutenant Smith and Sergeant Jones to open both side doors and try to see above us. Once we determined there was nothing of immediate danger I decided to hover straight up to clear the coulee. Visibility was down to 50 yards in all directions now, but we could still pick out trees, rocks, and bushes. Up we went, slowly, oh so slowly. It



seemed to take forever to climb the 100 ft or so to get out of that tree-lined ditch. I guess luck was with us as we cleared the coulee; just off to our right there was a spot large enough to land. Land we did. Now what? Fuel was becoming a concern since we had 45 minutes of fuel left, and at last nav checkpoint we had about 20 minutes to go to destination at 90 knots. However, we'd been hovering around the last 15 minutes burning up fuel and not cutting into that original 20 minutes.

Then out of the corner of my eye I noticed the bearing pointer on the RMI swing around and lock on the Casper VORTAC and the "off" flag disappear. DME indicated 20 miles. Was this another bit of luck? We figured there were no big obstacles in front of us except for an occasional tree. Sergeant Jones had checked that out on a quick recon of the area. With the bearing pointer indicating rock solid off our nose, I keyed the mike and called Casper Radio.

"Casper Radio, Casper Radio, Save 69."

"Go ahead Save 69, this is Casper Radio."

"Roger sir, Save 69 is 20 miles south. Request latest weather and altimeter." "Roger. Casper is 1,500 overcast, visibility 10 miles, winds variable at 5, altimeter 29.81, over."

"Roger, copy 29.81 Casper. Please give tops of overcast."

"A recent PIREP estimates overcast extends to 8,500 ft before breaking into clear."

"Roger, copy, Save 69 is at 7,500 ft. Request climb to 9,000 ft and proceed direct to the VOR-TAC for the VOR-B approach to Runway 27."

"Save 69 is cleared as requested."

Boy, was I glad he didn't ask what we were doing at 7,500 ft in the clouds, south of Casper in an area of 10,000-foot mountains. Now all we had to do was get to 9,000 ft through a solid overcast and hope there were no high tension power lines overhead. After discussing all available options and ramifications, we decided to do another zero airspeed climb until we cleared all obstacles. (This was not the ITO procedure I was taught at helicopter conversion school at Sheppard AFB.) I briefed I would steadily increase collective until we were clear of surrounding terrain and trees, at

which point I would pull max power to climb as quickly as possible. The other crewmembers were to scan like crazy. It took an eternity to climb that 1,000 ft or so and, boy, was it gray outside. Luckily, the temperature was above freezing and we didn't have to worry about ice. My only big concerns were (1) to get clear of the clouds and (2) hope my one and only engine didn't flameout. (Concern number 2 worried me plenty.)

Well, as you can surmise, everything worked out as planned. We broke out and shot the VOR approach to Casper. Once on the ground we collected our nerves and baggage and proceeded to our motel where we had some nerve medicine and a chance to discuss the day's events. (Lieutenant Smith learned more on this leg than he cared to, or could ever learn at table discussions with an instructor.) Some of the lessons learned were: (1) Recheck weather if takeoff is delayed for one reason or another; (2) Develop an alternate plan; (3) Don't be complacent and ignore what's going on around you. Darkness to the east and north should have been a strong enough clue to ask the questionwhat does that mean? (4) Don't let distractions ruin your concentration and situational awareness. All of us should have been more alert to what was happening to our airspeed and altitude. We should never have wound up in that coulee. I should have turned around.

Bottom line? We were lucky. The chain of events that causes mishaps was broken, by luck, on two occasions—when we found a place to land where there shouldn't have been one, and when Casper VORTAC locked on. If those two things hadn't happened, plenty of bad things would have. Use your imagination!