

Honorable Mention, 1976 MAC Flying Safety Writing Contest

The pilot needed all the help he could get when one of the helicopter's engines quit in a 200-foot hover.

Luck, Skill or Divine Intervention

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Ka-pow!"

The noise and the jolt made his heart feel as if it were going to stop, and again he was awakened by the sound of a perfectly healthy helicopter engine suddenly gone bad. As always after the dream, the cockpit still seemed more real than his bedroom. It took awhile to get his head together—and longer for the perspiration to begin to dry.

The H-53 flight that triggered this recurring nightmare had occurred in Thailand during the Vietnam War, at a time when the Air Force was critically short of experienced helicopter pilots. He was squadron standardization officer—and one of only four pilots experienced in

helicopter operations; the rest were ex-welded-wing drivers.

He had everything going for him. An exciting combat tour, Jolly Green parties that rivaled any in history and a camaraderie with the Sandies, Spads, FAC's and fighter pilots that he would never forget. He had faced many in-flight emergencies, handling them routinely and easily, but he was confident he could handle anything, even the rare dual engine failure and the flameout autorotation that would result. But, every H-53 he had flown ran like a top; maintenance was superb. Why shouldn't he be confident?

That was the situation when he started out on this partic-

ular flight. The young captain getting his Night Recovery System (NRS) lesson had come from KC-135's and still jestingly called the cyclic the "yoke." Nevertheless, he was an excellent pilot and did not require the close watch that so many did.

The scheduled flight profile included day aerial refueling practice as well as Night Recovery System training. He had given the same briefing many times; had it memorized so that he barely glanced at the briefing guide. "We'll shoot one instrument approach, navigate down to the NRS practice area and drop our two PJ's off while it's still light. You two guys come up on your radio about 30 minutes after sunset. We'll plan

to tap the tanker about that time, so it should be good and dark for the NRS work by the time we finish. I'll set Captain Smith up for a night search and simulated recovery of the two survivors after the refueling. If we can get a couple of good ones in, we'll pick up the PJ's and come back to the base. Any questions?"

The weather was hot and muggy, as usual, and their Nomex flight suits added to their discomfort. Sweat poured off both pilots as they pressed through the checklist. The T-64's whined into life, and the aircraft rocked gently as the six main rotor blades were brought up to 100 percent r.p.m.

Although the bird was heavy, it fairly leaped into the air from the thrust of the twin engines. No sweat, he thought. With full confidence in himself and his machine and at ease with his student, he then let his mind wander back to the States and home.

He was jerked back to reality. Captain Smith was just saying, "Jolly 33 going missed approach."

"Okay," he answered. "Let's find King 21 and see if you're as good at getting fuel as you are at flying instruments." Fixed wingers, he thought to himself, always

tough with the instruments. Smith was good at giving fuel from a KC-135; we'll see how good he is at taking it.

After the PJ's were dropped off in the NRS training area, Captain Smith lifted the helicopter off to meet the tanker. "Hello, King 21; this is Jolly 33, over."

"King 21 here; go."

And so it went, just like the instrument phase; Captain Smith knew what he was doing. This guy doesn't need me, thought the IP as he started down the garden path.

Captain Smith dropped off the tanker after taking on 3,000 pounds of fuel, a significant decision as events were soon to prove. Even at a heavier weight they could have maintained the required NRS 200-foot hover, but the IP had told Smith to take on only 3,000 pounds; he didn't really sort out the reasons why—just told him to do it.

Darkness was closing in on the twilight as they headed to the NRS training area and made contact with the PJ's.

"Hello, Barracuda; Jolly 33 here. Set up your strobe light, please."

"This is Barracuda; we think we should abort the mission. There's a big

thunderstorm coming up from the southeast. Request you pick us up ASAP or we may have to spend the night here."

"Roger, Barracuda; be right there."

As Jolly 33 approached the area, an abandoned airstrip, the IP could see the advancing storm. It was big, dark, and foreboding. Lightning occasionally flashed across the sky. He could recover his PJ's, but none too soon.

The wind was picking up and the thunder bumper moving in fast as the Jolly settled onto the runway. The PJ's piled aboard and Smith lifted the bird into a gentle hover.

"We've got a couple of minutes, Smith," the IP said. "Maintenance worked on the hover coupler, so we should ops check it again to make sure it's working okay. Go ahead and pull her up to a 200-foot hover and engage the coupler. It'll give you a chance to see what it's like hovering over trees."

Smith engaged the coupler. Both it and the radar altimeter hold feature worked perfectly. Then, he let go of the main controls and maneuvered the ship forward over the trees, using the small trim control stick.

Look at that beautiful engi-

neering ingenuity, thought the IP. The ship's smooth, automatic hover capability never failed to awe him.

"Ka-pow!" An ear-piercing explosion that could mean but one thing. Engine failure!

The hovering giant hung motionless and all activity seemed to stop. Power failure in a helicopter cannot come at a more critical moment.

Smith froze at the controls.

The IP reacted, but sluggishly, like a slow motion film of a man running for his life. After a long time, he began reading the instruments and felt the aircraft settle. And then a tumult of thoughts . . . number two's gone . . . did

the PJ's get strapped in? . . . and the flight mech . . . he was giving hover instructions at the cargo door . . . how tall are those trees? number one's at full power . . . why doesn't Smith react? . . . oh, God, what's the bold face procedure for a lost engine? . . . r.p.m. is deteriorating . . . rapidly . . . this sorry sow is going to kill us . . . can't make it to the runway . . . damn, it's dark . . . can't see a thing . . .

Finally, after an eternity, he reached up and slammed both throttles forward—step one in the bold face checklist. Now he grabbed the controls and screamed, "Leggo, I've got it! Turn your lights on!"

As the huge beast struggled

to stay out of reach of the trees below, the second bold face step came to him. "Jettison the tanks, jettison the tanks," he screamed over and over until the FM leaped from the cabin, broke the switch guard safety wire and pushed the jettison switch.

"Only one tank went," a PJ yelled. Repeated attempts to jettison the remaining tank were fruitless, but the bird's rate of descent slowed perceptibly now that it was 1,500 pounds lighter. The remaining engine strained—over-torqued and over-tempered. The IP looked for a place to land; all he could see were trees, with their limbs beckoning to him like a spider's web to a fly.

Not daring to take his eyes off his outside reference, he was flying purely by instinct—without looking at the instruments. He could tell by the sound that the rotor speed, his last thread of life, was dangerously low. "Say my r.p.m.," he yelled.

"Eighty-four percent," came the frightening reply. Far below the 92 per cent minimum listed in the Dash One.

Amazingly, Jolly 33 was still flying. He couldn't turn her around, and he had no place to land. Intuitively he decreased the collective,



The Chopper seemed to hang motionless in the sky.

trading precious altitude for even more precious rotor turns. The searchlights showed nothing but trees. He continued to pump collective and directed the FM to read off his r.p.m. It was steadily rising, 86 percent . . . 87 percent . . . 89 percent . . . 90 . . .

"To hell with the book! It's flying at 90 percent, and there's no more altitude left to give up!"

Slowly, painfully, the big ship began moving forward. But it continued descending, losing more critical altitude, scarcely missing tree limbs that reached out as it struggled to achieve translational lift. The IP talked aloud to himself, to God, to his airplane, to his crew ". . . come on, baby . . . you're flying now . . . help me, . . . crew, prepare for crash landing . . . come on . . . we're moving . . . activate the fuel dump switches . . . should have called for that before . . . come on . . . a little more . . . please, no more tall trees . . ."

The Jolly surged forward suddenly—that unique helicopter phenomenon, translational lift. It was flying!!! "Go, go, go," the crew cried. The r.p.m. came up slowly; airspeed and altitude increased ever so gradually as the fuel was being dumped.

The abandoned airstrip was about to be enveloped by the approaching thunderstorm, so he headed for home 40 miles away. He coolly brought Jolly 33 and its happy crew into the blocks and shut down. That beautiful number one engine. Like a thoroughbred race horse, it had given its all.

Later, as the IP headed toward the maintenance debriefing room, his legs weakened until he could barely support himself. He stepped into the latrine and spent a long time thinking about what might have been. "What if's" rang in his head. What if I'd taken on more gas? What if I hadn't remembered to activate the dump switches? What if I'd forgotten to get both throttles full up? What if I'd been too inexperienced to decrease collective? What if . . . What if . . .

Yet he *had* pulled them out. But how? It might have been blind fool luck; he had always considered himself lucky. It could have been skill, or his training. He had been taught to insist on sharp crew coordination and to memorize bold face items. Maybe it was experience; he had learned the trick of collective pumping years ago when he was flying H-19's onto Mount Peavine out of Stead AFB—where a couple of rotor turns at 9,200 feet meant the difference

between flying and an unplanned landing.

But the IP had been humbled this night and he knew where his luck and skill had come from.

His strength coming back, he headed for the maintenance debriefing. On the way, his head lifted slightly as he very distinctly said, "Thanks." ✈



ABOUT THE AUTHOR

Lt Col Strayer is a 1956 graduate of Ohio State University where he received his Air Force commission through the ROTC program. He was awarded pilot's wings in October 1957 and graduated from helicopter training in 1958. Except for 18 months during which he flew T-29's and C-131's, Col Strayer has been assigned to helicopters. He has flown the H-13, H-19, H-21, HH-43, and HH/CH-53. He has served four overseas tours—in Germany, Turkey, Nakhon Phanom RTAB, Thailand, and at Udorn RTAB, Thailand. He is presently serving at the Naval War College.