GRAMPAW PETTIBONE

Illustrations by Ted Wilbur

Whirling Whirlybird

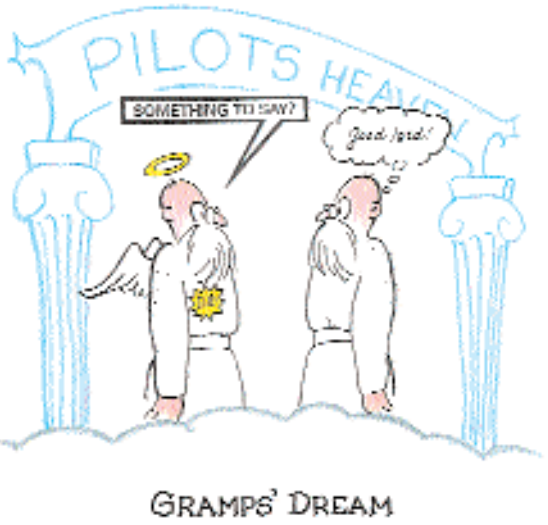
A USMC UH-1N "Huey" with two pilots and a crew chief on board was practicing emergency landing pattern work. The helicopter was at the 180-degree position and was cleared for an autorotation to touchdown. The aircraft was 500 feet abeam at 1,000 feet altitude and 80 knots airspeed. Normal parameters were maintained in the autorotation until reaching the 90-degree position.

The aircraft commander cautioned the copilot, who was at the controls, that airspeed had decreased below 65 knots. The copilot lowered the nose sharply to regain airspeed. The aircraft was now 45 degrees nose down and out of balanced flight (the ball was out to the right) with the rate of descent increasing to 400 feet per minute. The copilot commenced a waveoff with the help of the pilot who rolled the throttles to full open. Although the rate of descent decreased, the helo struck the runway 300 feet short of the threshold with the nose level and the collective at maximum.

The "Huey" bounced into the air, completing 180 degrees of rotation, touched down again just short of the runway edge, bounced once more into the air in a nose-high attitude and traveled another 100 feet before the tail rotor struck the ground. This impact severed one half of one tail rotor blade and damaged the tail rotor drive shaft.

The helicopter rotated 360 more degrees and traveled another 220 feet until hitting the ground in a level attitude. The tail boom sheared and the main rotor blade struck the ground, spinning the fuselage 180 degrees and rolling it over on its side. The main rotor came to rest 26 feet from the fuselage.

When all motion ceased, the throttles were closed and the crew egressed through the pilot's door. They sustained first-aid injuries.

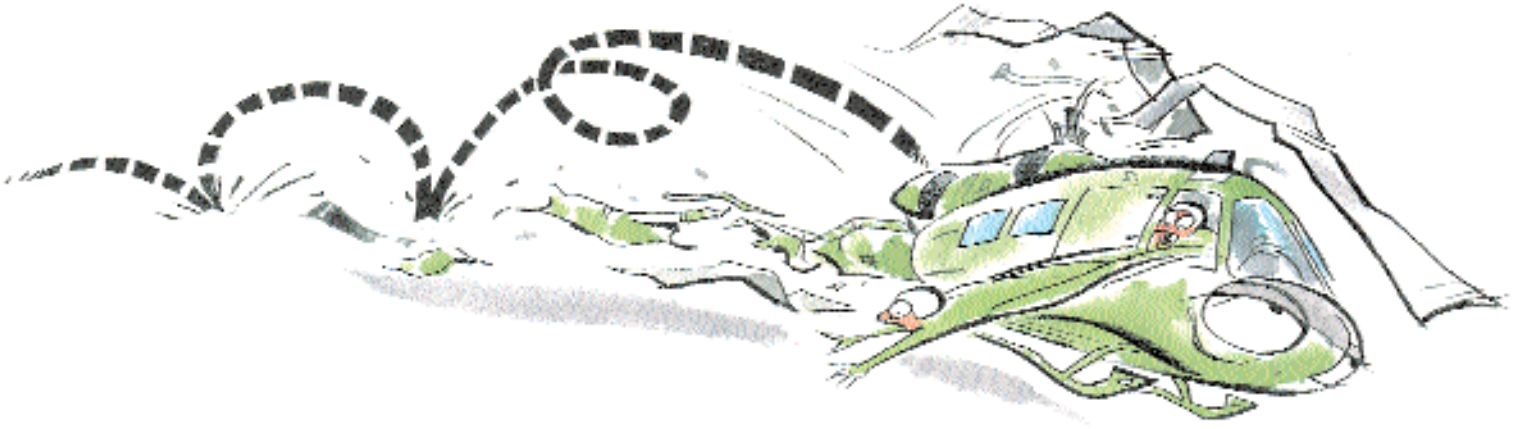


GRAMPS' DREAM

Grampaw Pettibone says:

What a wild ride! Gramps is happy no one got seriously hurt, but the old UH-1N took a beating it didn't deserve. The copilot lowered the nose too steeply at low altitude and at a critical time in the maneuver, a situation made worse by the unbalanced flight and high angle-of-bank condition—signposts for trouble.

The aircraft commander had flown a satisfactory flight the day before with the copilot who, in the past, had experienced difficulty with practice autorotations and lacked experience in the aircraft. Had the aircraft commander more closely monitored control inputs by the copilot he might have helped prevent the mishap. But the basic cause of the wild ride was the copilot's loss of situational awareness. And losing that, down close to Mother Earth, can be



Blow the Man Down

One fine morning a ZS2G-1 airship became airborne on a routine patrol flight from its East Coast base. The wind was calm, with broken clouds at 9,000 feet. The takeoff run was uneventful, but during the climb at about 200 feet altitude the crew felt a violent jolt in the controls. The airship began orbiting to the left, still climbing, with no apparent response to rudder control.

The airship commander declared an emergency, ordered both bomb bay fuel tanks jettisoned, and decided to attempt an immediate landing. Using offset power on the engines to maintain some directional control, a circling landing approach was made. The airship hit hard. The landing gear collapsed as the airship struck soft terrain, some fuel cells were ruptured, and the prop sheared from the port engine. The starboard engine also struck the ground and suffered sudden stoppage.

The airship bounced and ascended rapidly to about 800 feet, a free balloon. The pilot tried to descend by "valving" helium. This was partially successful, but super heating under the hot sun caused ascent again.

A helicopter attempted to aid in descent of the airship by hovering overhead and forcing it down with rotor wash. With this assist the airship descended to 500 feet, leveled off, and the crew manned abandon-ship stations. The airship drifted under some low clouds, getting a cooling effect that caused it to descend at 150 feet per minute. The crew then unsuccessfully tried to rip the bag. The "abandon ship" order was given and the crew escaped on dragging lines via several exits from heights that varied from 20 to 60 feet above ground.

The crewless airship free-ballooned for the next three hours on a busy airway and finally crashed in a remote area 20 miles from home base.

Grampaw Pettibone says:

Shades of the *Shenandoah*! These fellers just plain forgot they had a mighty fine balloon to ride in and panicked!

If they'd valved helium and settled her in real easy at the beginning, treated the airship like a free balloon and not tried to stick it in the ground under power like a dart, they'd have made out better. One thing they had was time. The ship wasn't damaged, engines were operating normally, with plenty of fuel aboard, and the bag was intact. Weather was no problem.

Way back in September 1925, VAdm. Charles E. Rosendahl, then a lieutenant, successfully free-ballooned the floating nose section of the airship *Shenandoah* from 10,000 feet to earth after the giant dirigible broke in half during a storm. In those days, we had only two large airships and lighter-than-air personnel were regarded as a breed apart, highly qualified and motivated professionals. I'd sure hate to think the breed was thinning out.

Abandoning ship as hastily as was done in this case doesn't follow the fine past traditions of lighter-than-air men. It'd seem that there was plenty of time left to figure out the *best* not the *fastest* way of getting the ship down.

What caused the jolt was under investigation.