

CALLBACK

From NASA's Aviation Safety Reporting System



Number 300

September 2004

Rotorcraft Roundup



While helicopters and fixed wing aircraft may differ in form and function, many basic principles of safe operation apply to both breeds. No matter what sort of rig you're driving, everyone in the outfit

should be able to wrangle a lesson or two from this roundup of ASRS helicopter reports.

"Don't Fence Me In"

Extra caution was required when these two "...cowpokes went riding out one dark and windy day." Perhaps they figured only tinhorns make errors in judgement. Fact is, we all can make mistakes. So, stay alert — unless you want to be out in the cold mending fences.

■ We were asked if we would like to reposition to a spot closer to a passenger pickup point. I agreed to do so. We elected to air taxi instead of ground taxi. The wind was off the nose...at 20 knots gusting to 30 knots. During the reposition, we both felt a buffeting of the helicopter, followed by a command from the heliport to "move up." We landed and found that the tail rotor had impacted the top bar of a chain link fence at the perimeter of the heliport landing area. This occurred at night, with gusting winds, in a confined area that was known to both pilots. Both pilots were fully qualified, highly experienced, and had elected to air taxi to the new spot. I believe that...the gusting wind, contributed to a backward drift of the aircraft that neither pilot perceived until radioed by the heliport operator... The helicopter had four tail rotor blades replaced...

"The Buckin' Bronco"

A rotor tie down prevents unwanted blade movement in an unmanned helicopter, but when it comes time to fly, a hobbled helo has a hard time hovering.

■ I had completed a preflight of the helicopter four hours earlier and did notice that the rear rotor blade was tied down. I connected the battery cart to the aircraft and got in. I cranked [the engine] while monitoring the gauges and occasionally looking outside. At 50-55% N1 the cyclic moved forward and to the right, the helicopter

simultaneously started shaking violently. I shut the engine down. This whole sequence occurred within about 40 seconds.... The main rotor blade was tied down and had broken about three feet from the tip. That was the cause of the violent shaking.

"High on a Hilltop"

Check the rig and cinch up the gear,
Before you mosey down the line,
Or you might be put out to pasture,
A little bit before your time.

■ Approximately six miles northwest of the airport, we heard a "thunk." I looked into the mirror and saw that the starboard engine cowling was loose. I immediately made an emergency landing on a hilltop in a horse pasture... Upon shutdown, I could see that the lower third of the cowling had been torn away and that the rotor blades had been scratched near the blade root. There was no evidence of any contact or damage to the tail... [and] no evidence of foreign object ingestion into the engine.

When we had [engaged] the starter, nothing happened. We ran through the procedure again and once more it didn't crank. I...then remembered that there is a micro-switch on the rotor brake that will not let the starter engage if the rotor brake is on.... It occasionally sticks. I took the plastic end of a screwdriver and tapped the switch then lowered the cowling without latching it because I wasn't planning to start. I just wanted to tap the starter switch to see if it would engage. It did.... I forgot that I had left [the cowling] unlatched. I broke a fundamental rule of mine, which is to always walk around the aircraft just before getting in to check obvious things such as latches, fuel cap, tie-downs, covers, and rotor blade conditions.

As of this writing, the helicopter is still on the hilltop.

"(Not So) Lonesome Cattle Call"

When you're out rounding up strays, keep an eye out for Tractors, Cats, Thrushes, and even Pawnees. That duster on the trail can ruin your whole day.

■ We were hovering at approximately 10 feet, between 30-foot tall trees, looking for cattle. We were completely surprised when a crop duster appeared and circled approximately 200 feet above us as he prepared to begin his spray run in the cotton field adjoining the pasture we were in. It seemed as though he was just as surprised as we were. He immediately began his runs on the field and we stayed in the trees until he was a safe distance away. Had we come out of the trees a few moments earlier, the result could have been catastrophic.... This emphasizes the need for pilots to be constantly vigilant, even in the "middle of nowhere...."

ASRS Recently Issued Alerts On...

ERJ-135 thrust reverser failure
Foreign airport VOR radial discrepancy
B737-200 flap drive torque tube discrepancy
B767-300 in-flight loss of electrical power
FAA passenger and baggage weight calculations

A Monthly Safety Bulletin from

The Office of the NASA
Aviation Safety Reporting
System,
P.O. Box 189,
Moffett Field, CA
94035-0189

<http://asrs.arc.nasa.gov/>

August 2004 Report Intake

Air Carrier / Air Taxi Pilots	2287
General Aviation Pilots	814
Controllers	77
Cabin/Mechanics/Military/Other	186
TOTAL	3364

Roundup Windup



“Runaway”




A low flying aircraft, particularly a helicopter, can be an imposing and sometimes unsettling sight to observers on the ground (even when the aircraft is conforming to Federal Aviation Regulations). Some flights, such as emergency medical operations, don't allow much flexibility, but whenever the job permits, an extra margin of clearance can minimize the concern of folks and critters down below.

■ *I was hired to provide a helicopter platform for shooting video footage of a rural site... surrounded by open fields and ponds. We made several low-level passes.... I believe that I conducted this mission safely... however; subsequent complaints suggest that I may have passed too close or above people or houses that I was unaware of. One man claimed that I scared a bull, and that it has not*

returned, and others claim that I scared their children, and came very close to their houses. I believe that they were simply disturbed by my noise and may have exaggerated. Many people perceive a helicopter as inherently dangerous....

Our initial pass over the field with the cattle was at about 20 feet AGL. The nearest cows moved away, but the herd did not appear to be concerned. We made several similar passes from various directions, all over open fields. We made one pass for some treetop shots at about 30-40 feet with nothing else below. At no time during any pass did I observe people or houses that I could have missed during the reconnaissance. I believe that I was well away from any areas of concern. I will certainly be more aware [of possible conflicts] on my photo flights from now on.

That's it for this roundup, folks, “until we meet again....” And remember; if you get your procedures down and keep your RPM's up, we won't have to keep singing these “unhappy tales to you....” 



A Review of ASRS Reporting Guidelines

Our sincerest thanks to everyone who stopped by to chat with the ASRS representatives in the NASA pavilion at EAA's AirVenture 2004. In discussing the program with people involved in many different aspects of aviation, two common misconceptions concerning ASRS reports were noted.

1. A number of people thought that direct involvement was necessary in order to report on an incident.
2. Many people expressed a belief that only one ASRS report could be submitted within a five-year period.

You do not need to be directly involved in an incident to submit a report. Everyone is encouraged to submit reports to the ASRS when they are involved in, or observe, an incident or situation in which aviation safety was a concern or in which safety was actually compromised.

Regarding the second misconception, there is no limit to the number of ASRS reports you may file in any given time period, nor is there is any minimum time restriction between submissions. You may file as many reports as you think necessary, as often as you think necessary.

The only restriction that applies to ASRS reports is the number of times that Transactional immunity may be exercised in a given period of time. Let's discuss immunity.

There are actually two immunities that apply to ASRS report submissions, specifically, “Use” immunity and “Transactional” immunity. Simply stated, Use immunity means that your report, or information contained in your report may not be used against you. The restriction to Use immunity is that the event must not have been an accident or a criminal act.

Transactional immunity means that penalties assigned by an administrative law judge as the result of a violation will be waived. You may only exercise Transactional immunity once in a five-year period. If you have not been found in violation of an infraction in an administrative hearing, in front of a judge, then you have not used your Transactional immunity, so the five-year restriction does not apply. Even if you are found in violation in a hearing, you may still submit as many reports to ASRS as you want, but you would not be able to exercise your Transactional immunity privileges to waive a penalty for five years. One final requirement for Transactional immunity is that the ASRS report must be submitted within 10 days of becoming aware of the event.

Additional information regarding ASRS immunities can be found in FAA Advisory Circular 00-46D (online at http://asrs.arc.nasa.gov/immunity_nf.htm). 