# The Milky Way

A CH-46D Sea Knight was tasked with transporting cartons of milk from NAS Overseas to an aircraft carrier at anchor nearby. At the air station, the helo crew coordinated loading of the milk and some other gear with the carrier's food services working party supervisor. The supervisor was not assigned or trained as an air transport officer ashore.

The helo's first aircrewman asked the food services supervisor how much the pallets of milk to be airlifted to the ship weighed. The supervisor lacked knowledge in this area and referred the question to the medical inspector, whereupon a discussion as to the weight of a gallon of milk ensued.

The supervisor and the first aircrewman decided that a gallon of milk weighed 20 pounds. (The milk was contained in six-gallon cartons which actually weigh 53 pounds). Using their erroneous figure, a six-gallon carton of milk would have weighed 120 pounds. There was a bill of lading available which contained an accurate weight figure in kilograms for the milk but no one referred to it throughout this evolution. Also, individual pallets weighed 50 pounds and there were 175 pounds of miscellaneous cargo. But these weights weren't considered in the total.

Despite their erroneous calculations for the weight of a gallon of milk, all participants on the ground and in the flight crew agreed that the cargo weighed approximately 3,000 pounds for the first load. In fact, the milk alone weighed 7,420 pounds (140 cartons at 53 pounds each — they had figured 20 pounds per carton rather than per gallon). In effect, the Sea Knight toted more than twice the estimated carton weight on the first flight.

The helicopter aircraft commander (HAC) achieved a hover in ground effect (HIGE) torque of 78 percent and continued the flight. It was decided to reduce the load for the next hop, however. The second and subsequent loads consisted of 120 cartons.

Assumed weight was 2,400 pounds. Actual weight was 6,735 pounds. The HAC achieved 70 to 75 percent HIGE torque on the second sortie. On the third delivery, the helicopter second pilot (H2P) had to wave off due to a problem on the flight deck. As rotor



head speed (NR) drooped to 92 percent, the HAC took over, cautioning the H2P on the need for more gradual power application.

The H2P was at the controls for the fifth carrier approach which was flatter than the previous ones. He recognized the lower altitude as he began to decelerate for an intended no-hover landing.

Approaching a position abeam of spot four with forward motion nearly stopped, his collective application was insufficient to arrest the rate of descent. He further increased collective. At this point, NR began to droop and control inputs had reduced effect. The pilot believed he could still make the flight deck and continued his right movement.

The first aircrewman called "up, up, up" over the ICS. The landing signalman enlisted (LSE) observed the aircraft's slowing forward motion and gave a hover signal, followed immediately by a slide right signal. As the helo approached the deck edge, the LSE saw there was insufficient altitude to clear the catwalk and signaled wave-off.

The HAC called for altitude and tried to take the controls for a wave-off but they were not responsive. A moment later, the aircraft struck the side of the ship, rolled onto the flight deck and came to rest on its starboard side. The aft fuselage extended out over the water. The crew safely egressed although the pilot observer exited the aircraft through the ramp and hatch area and fell into the water. He was quickly retrieved.

Shrapnel from the disintegrating rotor blades flew in all directions and struck 18 people, causing minor injuries, and 20 aircraft, inflicting substantial damage.



Grampaw Pettibone says:

Color everybody lucky on this one

— and call out the calculators. There's
a bit of a math problem here. Ole



Gramps knows the injuries and the damage were costly but he's also amazed nobody was wiped out for good, what with fragments of metal zig-zagging all over the place like ricocheting bullets. Common sense sure took a holiday.

There were some paperwork problems and lack of administrative guidance both aboard the ship and at NAS Overseas. Somebody's gotta be in charge, know how to figure weights and provide specific data to flight crews. Too bad they didn't check that bill of lading.

But I'm stompin' my foot 'cause there were plenty of hints that trouble was awaitin' this Sea Knight. For instance, how come the aircrewman discounted the weight of additional cargo and the pallets? That tells me somethin' about a possible lax attitude.

And how come when the crew experienced 92 percent droop on the wave-off, a question mark about the load didn't light up in their minds?

And why didn't doubts arise about the hover check of 78 percent HIGE torque which ain't exactly right with an assumed cargo load of about 3,000 pounds?

And how come somebody didn't ask why the internal winch had to be used to load pallets that reportedly weighed only 600 pounds each?

There's more, but you get the message.

Everybody was tryin' to do their job here. But tryin' ain't enough.
Attention to detail, professionalism, NATOPS — these are the buzzwords we gotta live with in Naval Aviation.
All of us, not just the folks involved in this accident, need to be real familiar with this trio of subjects.

#### Midnight Rendezvous

It was a moonless, black evening. The pilot and bombardier navigator (BN) of an A-6 Intruder hot-seated for a night field carrier landing practice (FCLP) hop. The offgoing aircrew advised them that the taxi light was inoperative and recommended they taxi with caution. At the "hot pit," the oncoming crew noted that there was more activity than normal. This was because many local squadrons were doing FCLP work.

While taxiing to the runway nearly two miles away, the crew worked on

their takeoff checklist. The pair flew together often and knew the airfield well.

After crossing the off-duty runway, they saw that the hold-short area for the duty runway seemed crowded with aircraft and was lit up "like a Christmas tree." As they neared this area, the crew tried to count the number of aircraft ahead of them. In the meantime, a utility truck, en route to air operations, swept its high beam headlights through their cockpit - adversely affecting the crew's night vision. Seconds later, the flyers caught a glimpse of a parked and "unlit" or "midnight" A-6. It had been briefly illuminated by the rotating beacon of the taxiing Intruder. The pilot hit the brakes abruptly along with right rudder to avoid a collision. They missed the darkened Intruder by 15 feet.



### Grampaw Pettibone says:

If these two Intruders hada intruded into the same spot in the hold-short area, they mighta seen a lot more lights than a Christmas tree. The so-called "midnight" A-6 simply didn't "light its candles." The moving Intruder could have gotten a better warning if its taxi light was operative, but that's not a downin' gripe and we ought to be able to handle things without it. The hold-short area accommodates 10 aircraft. Actually, there were only five there at the time. But at night — what with all the blinkin' and shinin' — it seemed like more.

If you run into the same thing as these Intruder fellas, make sure your lights are on when they're supposed to be, and take it slow and easy when goin' up against Christmas trees.

## Pain in the . . . Eye

The crew of an A-6 Intruder checked in for recovery aboard the carrier and were directed to climb to 17,000 feet and hold. Passing 10,000, they noticed that the cabin pressure was inoperative but they elected to continue climbing. After leveling at 17,000 feet, they felt comfortable without the cabin pressure.

Twenty minutes later, the *Intruder* was cleared for an immediate descent to 5,000 feet to investigate a fighter aircraft with a minor emergency. The pilot banked steeply and descended at



a 6,000-fpm rate. Passing through 10,000 feet, the BN experienced a sudden and sharp pain behind his right eye. "It was as if an icepick was being stabbed in it," he said later, "and my head felt like it was going to explode."

The BN doubled over in pain and took rapid, shallow breaths while wiggling his jawbone in an effort to relieve the pressure. He tried Valsalva and massaged his right eye, which helped a little. Although he was not incapacitated, the BN was unable to perform copilot duties for about one minute.

The Intruder landed uneventfully. Believing he was recovered, the BN and his pilot planned to brief for a second assigned hop. They went to the wardroom. As he was eating, blood began trickling from the BN's nose. He lost his appetite and proceeded quickly to sick call. After sinus x-rays, his ailment was diagnosed as barotrauma of the sinuses resulting in a hematoma (trapped blood). He was placed in a medical down status for a minimum of three weeks.



#### Grampaw Pettibone says:

This admitted Ready Room Cowboy
"... couldn't stand to be anywhere
but in the air." He also said he had a
touch of a cold but wasn't going to let
an "itsy-bitsy sniffle" keep him on the
ground. He knows better now. Bein' up
high and goin' down low in a hurry can
raise Cain — and pain — in those
important chambers inside the skull.
Good thing the pilot wasn't in the
same kind of fix. Tain't easy flyin' an
Intruder from the BN's seat.

Had this fellow checked with the flight surgeon, he might have lost a hop or two but not three or more weeks' worth. Gramps likes the spirit and go-get-em attitude of Ready Room Cowboys. But mix the spirits with common sense!