

Wheels of Fortune

The pilot of an AV-8B reported at the initial point for landing on the north runway at a West Coast air station. He was cleared to land following an FA-18 on final. The tower asked the *Harrier* to check wheels down. There was no acknowledgment to this. A short time later, the pilot requested a conventional touch and go. The tower then canceled the *Harrier's* landing clearance and instructed the pilot to continue the approach.

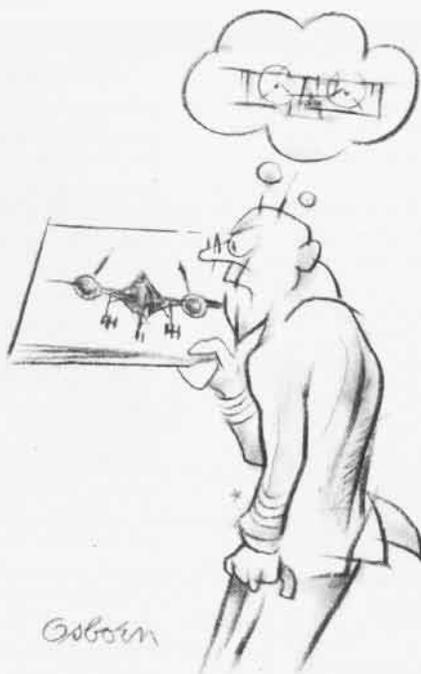
A moment later, a C-2 *Greyhound*, holding short at the approach end of the north runway, checked in on tower frequency.

The tower cleared the AV-8B for a touch and go. The pilot still did not report any landing gear status. Both the pilot and copilot of the *Greyhound* observed the *Harrier* rolling into the groove with gear up and speed brake extended. They discussed this between themselves on the intercom but made no transmission outside the cockpit.

In the *Harrier*, the landing gear warning system is activated when altitude is below 6,000 feet, air speed is less than 180 knots, and sink rate exceeds 250 feet per minute. When those conditions are met, a warning voice declares, "Landing gear, landing gear." The pilot did not hear any warning during the approach. He continued and flared the aircraft to a touchdown. He heard an unfamiliar noise, added full power, and took off.

Once airborne, he requested that his wingman visually inspect the aircraft. The wingman saw some damage to the speed brake and noted all four landing gear down. The pilot did not recall when he lowered the gear handle. The pilot next executed an uneventful landing on the *Harrier* pad.

The *Harrier* had touched down gear up, about 3,000 feet from the approach end of the runway, and skidded about 1,000 feet before becoming airborne. The C-2 pilots at the



Osborn

They were always stuck out in the breeze whether we were flyin' or sittin' in a cow pasture. But we wanted to go faster so we made the wheels "retractable." And ever since, an aviator here and there pancakes in like this chap.

He wanted to make a touch and go and mighta got distracted by the tower's cancelation of his first request for landing and then the tower's call to continue. This pilot never did report his gear down, which shoulda made somebody perk up. Since it appears he probably was faster than 180 knots, that little voice in the black box kept silent and he got no warning that the wheels were in the wrong place at the wrong time.

How 'bout the C-2 folks? Given, they weren't familiar with the *Harrier* and weren't sure what the AV-8B's intentions were. But sometimes, if you have an inklin' somethin's wrong, it won't hurt to speak up and tell somebody about it.

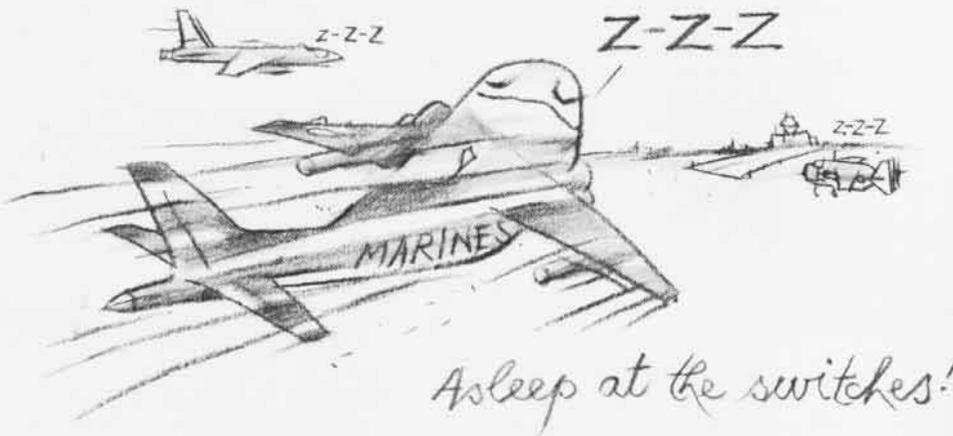
Anyway, nobody got hurt and the bird was fixed. But the advice is: When the tower asks you to check your wheels down, you better do just that and report same. The procedure is designed to prevent exactly what happened here.

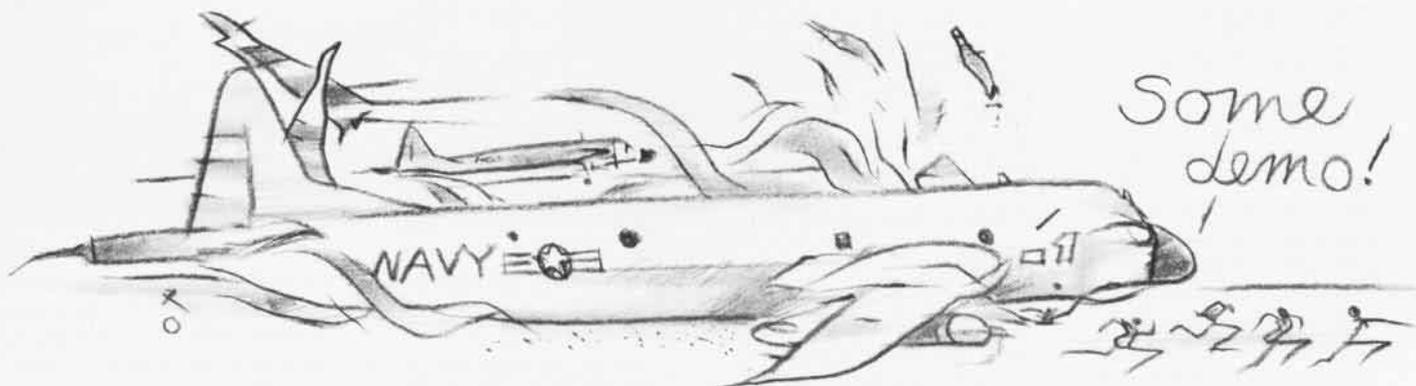
hold-short point confirmed that the AV-8B landed gear up, speed brake extended.



Grampaw Pettibone says:

When Ole Gramps started out, we never made gear-up landings 'cause the gear never came up.





Orion Ordeal

A designated P-3 *Orion* flight demonstration crew, consisting of pilot, copilot, flight engineer, and observer, launched to practice maneuvers at an outlying field for a forthcoming official demo at an air station. After a full-stop landing, the crew executed a high-performance takeoff. They followed this with three high-speed passes over the airfield at 300 feet, 360 knots. The P-3 then made a full stop and observed another demo team in a P-3 go through a similar routine. After that, the first *Orion* took off, made an immediate left 45-degree turn, then performed a 2.0 G pop-up maneuver to 2,000 feet. Another high-speed pass over the runway followed, then two more passes at 1,000 feet, 260 knots, conducting simultaneous shutdown and subsequent restart of the number one and number four engines in the process.

The *Orion* then did a MAD (magnetic anomaly detection) trapping maneuver over the runway at 700 feet. Next, the P-3 proceeded to a left 180-degree position from the runway at 7,000 feet for a short field landing. The other *Orion* had landed and observed the first P-3 from an alternate runway.

With gear down, the pilot lowered flaps to the land position at the 135-degree point. At 500 feet in the turn, the P-3 was at 130 knots. The *Orion* arrived on final, one and a half miles from touchdown at 500 feet, and was cleared to land by the tower.

The pilot lowered the nose to point at the runway numbers and at 300 feet, the aircraft was at 126 knots. The *Orion* crossed the threshold at 128

knots, 100 feet, with a pitch attitude estimated by witness of 10-25 degrees nose down.

The pilot recognized the excessive sink rate after descending through 100 feet. He increased pitch attitude to cushion the landing. None of the crew called for a waveoff.

The P-3 impacted the strip at just under 110 knots. The landing gear bottomed out and the propellers began to strike the runway surface. Fuel spewed from the port side and flames engulfed the *Orion* aft of the props. The pilot was not immediately aware of the fire. The aircraft's flight controls moved randomly as the *Orion* slid down the runway.

The fuselage drifted left of centerline as the left wing separated from the fuselage. It struck the horizontal stabilizer and passed behind the aircraft. The number one prop separated from the engine as the *Orion* departed the runway, ultimately coming to a stop.

The observer saw the flames in the aft fuselage area and immediately opened the flight station auxiliary emergency exit. The number three engine was still running but the engineer quickly feathered it. The crash crew was on the scene within 30 seconds. The flight engineer exited, followed by the copilot, the observer, and the pilot. Except for some contusions, there were no serious injuries.



Grampaw Pettibone says:

That old saw, "Any landing you walk away from is a good one,"

belongs to the biplane days of yesteryear when we were just learnin' the flyin' game. It don't mean a pine needle in the high-tech 1990s of Naval Aviation.

It takes an 18.5 feet-per-second rate of descent to bottom out the landing gear in an Orion. The bird was simply comin' down too fast and the crew didn't notice the error in time.

Turns out the pilot was the Senior NATOPS (Naval Air Training and Operating Procedures Standardization) Evaluator in the P-3 for that command area. But he hadn't flown as a pilot at the controls in 48 days and had made only four landings in the last three months. His instrument qualification was not current. Neither was his night flying qual. He'd had a cross-evaluation flight but he didn't take the NATOPS open and closed book exams. Plus, he didn't demonstrate proficiency in landings during his evaluation flight earlier in the year.

There were some other problems – insufficient brief on flight demo procedures, among 'em. Bottom line: He sure didn't seem ready for the hop, and if he wasn't, neither was the crew.

Ole Gramps is happy they got out OK. But he's still fumin' about the loss of that beautiful bird. Poor show all the way 'round. Don't let it happen in your command.