

GRAMPAW PETTIBONE

"What's Wrong?"

The pilot of an Organized Reserve Squadron was all set to make his first flight in an FG-1D. He had slightly over 500 hours of total time and during the last three months alone had flown 57 hours. He had read and initialed all the safety directives and had been given a thorough cockpit check-out.

He taxied out, held near the runway end for a sufficient length of time to complete his engine run-up and cockpit check. Another *Corsair* had just taken off on the right side of the 400 foot wide runway, and after a normal interval this pilot started his take-off on the left side.

Shortly after the take-off roll started, the plane was observed to veer slightly to the left. Inspection of the runway showed that right brake was applied at this point.

The aircraft was airborne in a three point attitude after using about 800 feet of runway. It continued in a nose high attitude while commencing a left roll. The roll continued without hesitation until the plane struck the ground in an inverted attitude. The *Corsair* exploded and burned on impact. The pilot was killed instantly.

Investigators probing through the wreckage found the aileron trim tab fused in the 15-degree left wingdown position. The elevator trim tabs were found unburned and fixed in a 19-degree nose high position. Rudder and rudder tabs were destroyed beyond investigation.



Grampaw Pettibone says:

Here's a case where a pilot didn't even give himself a fighting chance.

Full left aileron tab, 19 degrees of up elevator tab! You can't help wondering what this pilot thought in the last few seconds of his life.

Whenever a fellow flies a plane for the first time, he wonders just how it will feel. How much rudder pressure will he need to compensate for torque? How much runway will he use? How will this plane compare with the one to which he had grown accustomed?

This lad was undoubtedly thinking about these things as he taxied out for take-off. But he had stacked all the cards against himself when he forgot to check his tabs.

Chances are that his last thought was simply "What's wrong?"



Let's Get Some Fish Scales

Two recent accidents point up the danger of overloading helicopters. Extreme care should be exercised during the loading operations of any single rotor helicopter. Pilots who have never flown an HO3S-1, for example, will be surprised to know that the allowable travel of the center of gravity is only about 3 1/2 inches. If these limits are exceeded, longitudinal control is seriously reduced.

In one accident, the excuse for the overloaded condition was that no scales were available to weigh cargo items.



Grampaw Pettibone says:

I don't want to hear that excuse again. The folks in the Supply Corps tell me that they carry a standard stock item No. 18-S-1426, a fisherman type spring balance scale that is just the thing for weighing babies, fish, and small pieces of cargo.

If you rotor lads are going to operate in remote areas where there aren't any scales, for gosh sakes, draw one of these from Navy General Stores and carry it along with you.

How Cool Can We Be

Here's a welcome change from the daily routine of reading and writing about accidents—cause this one didn't happen:

"While piloting FG-1D from overhaul facility at NAS JACKSONVILLE to St. Louis, Mo., Lt. (jg) _____ USNR-O detected sparks and smoke in cockpit followed by droppage of right rudder pedal to the floor, leaving pilot with no right rudder or right brake.

This difficulty was encountered over the Okefenokee swamp, approximately 150 miles SE of his destination of Maxwell A.F.B. All indications of fire soon disappeared, so pilot decided to stay with the plane and proceed on to Maxwell Field.

"Due to distance and altitude, radio contact could not be made with Maxwell tower, but contact was made with an AF plane who relayed the position, ETA and request for a standby of all emergency equipment. Arriving over Maxwell Field pilot requested that a transcription be taken of all radio transmissions for future reference in case of damage to aircraft.

"Over the wingman's urgings to make a wheels-up landing, Lt. (jg) _____

_____ elected to attempt a normal landing in an effort to save the aircraft from major damage. A bet of two dollars was then made by wingman that he would not succeed in a no damage landing. The bet was called.

"Owing to an overcast at 4500 feet, the pilot held that altitude and tested the plane for stability and controllability at landing speed with half flaps and wheels down. Complete landing check-off procedure was accomplished before the test was made. A test stall was not attempted as a recovery would have been doubtful without rudder control.

"It was observed that the plane could be held under sufficient control by employing the use of the rudder trim tab. Maxwell tower then gave pilot permission to land on runway 18, wind 170 degrees at 25 miles per hour, gusty to 30.

"Runway 14 was then requested by pilot so as to have a cross-wind from the right, which, once on the ground could be corrected for by the left rudder that he had available. Permission to use runway 14 was refused. The pilot then informed the tower that a landing on runway 18 would be attempted and must be completed on the first approach, and requested that all ground and air traffic be held clear of the area as a wave-off would be impossible owing to his inability to correct for torque.

"The approach was then started from an altitude of 2500 feet, straight in and five miles out. A rate of descent was set up that would bring plane over the end of the runway with a minimum of power changes that would effect the trim of the plane.

"The approach speed used was 110 knots, with 20 degrees flaps and prop set at 2200 RPM. This speed, flap and RPM setting did not require full rudder.

der trim, thereby leaving some trim in reserve. On last mile of the approach full right rudder trim was rolled in but held off by pressure on the left rudder.

"A wheel landing was made at about 95 knots and the plane was held straight by releasing or adding left rudder. When the pressure on the left rudder was relaxed, the trim tab applied right rudder as needed, until the plane slowed down to a speed at which the tab was ineffective.

"The Corsair rolled to a stop after using about 3500 feet of a 7000 foot runway.

"The pilot then called the wingman who was still circling the field and told him to land and fork over \$2.00.

"Inspection of the aircraft subsequent to the landing revealed that improper routing of the forward battery cable caused the right hand rudder cable to rub against it. This rubbing wore through the insulation and resulted in the rudder cable being burned in two as it contacted the battery cable."

 **Grampaw Pettibone says:**

This is one of those times when I'm tempted to violate a long standing rule that no names are ever used in these pages, because I think this pilot deserves a lot of credit for clear thinking and coolness in an emergency.

Maybe he had his neck out a little in attempting a wheels-down landing with no right rudder or brake, but he had the situation doped out correctly and I think he deserves a rousing cheer in addition to the two dollars he won.

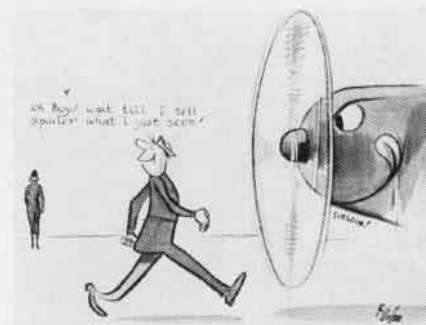
Ran Into Moving Prop

At the time of this accident the U.S.S. Coral Sea was at flight quarters engaged in recovering aircraft. An experienced plane captain was standing in company with two other flight deck crewmen awaiting the arrival of his assigned plane which, at that time, was making its final approach to a landing. Directly behind the men, another aircraft was being moved the last few feet to its parking spot.

After the cut, the landing aircraft hit the deck wheels first, bounced into the air and flew into the barrier. The crash alarm was sounded just before the plane hit the barrier, and the men scattered for cover. At this instant, the pilot of the aircraft being parked cut his engine by moving the mixture control to the off position, but the propeller was still whirling owing to inertia.

The plane captain dropped the tie-down lines he was holding and ran around the starboard side of the parked aircraft directly into the still whirling propeller. Death was instantaneous, caused by a compound fracture of the right side of the head. A Chief who also ran when the crash alarm was

sounded barely missed the same fate. He ran around the starboard side of the same aircraft and crouched under the engine nacelle. He later stated that he was not aware of the turning prop until the plane captain who was running just behind him was hit.



 **Grampaw Pettibone says:**

"Look Before You Leap" even in an emergency. During landing operations aboard a carrier, the best life insurance you can have is knowledge of where you're going to head in the event of a crash.

This means that you've got to be extremely alert. You've got to glance around and know what is going on behind you. If you plan to jump into a particular spot, take a look at it every once in a while to make sure that some spectators haven't blocked your escape path. In this sort of emergency, it is far safer to head for the catwalks than to run forward through parked aircraft.

Dear Grampaw Pettibone,

I thought that you might be interested in an experiment conducted by officers and men of VR-691 a short while back. In order to emphasize the importance of the station order concerning use of parachutes in military aircraft, a surprise unrehearsed drill was conducted. A crew of three plus 27 passengers, relatively experienced in flight safety because of the nature of their duties as flight engineers and orderlies, were ordered into a squadron R4D to simulate preparation for a routine flight.

When the men were all seated and had fastened their safety belts, the pilot announced, "This is a drill. The right wing is on fire. Put on your parachute and get out as quickly as possible. Get out." A stop watch kept an accurate record of the subsequent proceedings. The results of the first phase were as follows:

- a. The first man emerged from the jump door in 2 minutes, 20 seconds.
 - b. Fifteen men were clear in 3 minutes, 20 seconds.
 - c. Twenty-six men were out in 4 minutes, 20 seconds.
 - d. One man never solved the intricacies of the harness and didn't get out.
- The men were lined up and para-

chutes were inspected for proper fit; the following was noted:

a. Twelve men had parachutes on upside down.

b. Five men had harness on wrong side out.

c. There were several cases of harness buckles attached to wrong component.

d. Several harnesses were so loose that the men would have fallen out of the harness when the chute opened.

The second phase of the drill immediately followed the above and included proper instruction on the wearing and adjusting of the harness, and proper stowage of the chute pack under the seat. Again the signal was given to bail out and results were:

a. First man out in 8 seconds. ALL personnel clear of plane in 30 seconds.

b. Inspection of the men revealed all chutes correctly worn and adjusted properly.

The above was conducted under ideal conditions of no panic, no turbulence, and the plane was completely stable. It is estimated that to evacuate all personnel from the plane in the first phase of the experiment, the aircraft would have to be at the unattainable altitude of 50,000 feet. In the second case an ordinary flight altitude of 5000 feet would allow all personnel to clear the aircraft safely.

 **Grampaw Pettibone says:**

Oh, brother! Imagine the panic that would have occurred if this bunch had been faced with a real emergency. Three or four years ago I wrote an account of an actual emergency in a Beechcraft in which the passengers got so confused and excited that they couldn't get into their chutes.

The pilot was having great difficulty controlling the SNB owing to terrific vibration, but was helped into his harness by a crew member. At about 1000 feet, he and the crewman were ready to jump, but none of the passengers had left the plane. The pilot was in a tough spot. The terrain below was not suitable for a forced landing, but he had no alternative. He and the crew member couldn't jump and leave three passengers to their fate.

He had to attempt a landing and found himself heading for a fairly steep hill. He dove the plane to pick up 100 knots, pulled back on the yoke, and tried to hit at about the same angle as the slope. Unfortunately, the SNB stalled just before impact and the deceleration tore all the seats in the passenger compartment loose and threw the passengers forward against the bulkhead. Two of the passengers and the crew member were killed.

About a year later when the pilot got out of the hospital, he dropped in to talk over the accident, and agreed that from then on he was never going to take it for granted that any passenger knew how to get into a harness or buckle on a chute.