

# GRAMPAW PETTIBONE

## Controls Jammed

The pilot of an F8F flew for 30 minutes from the USS *Leyte* to NAS QUONSET POINT, R.I., without difficulty. After his flight had been cleared to land, and just as he turned into the straight-away, he decided that he was too close to the plane ahead for a safe landing on the icy runway. A normal wave-off was taken, but during the climb, restricted use of aileron controls was noticed.

The pilot then climbed to 2000 feet, inspected the cockpit for a cause of the restriction of controls and being unable to locate the trouble, decided that it was caused either by ice or loose baggage. Since control was lessening, an immediate landing was considered necessary. During this approach restriction of elevator controls was also observed, and it was becoming difficult to move the stick in any direction. The pilot intentionally maintained excessive speed in his approach and as a result over-shot the end of the runway.

The plane touched down in a normal attitude but fast. Brakes were applied immediately and alternately, but the plane swerved to the right on the icy runway and the starboard landing gear struck a snow bank. This caused the plane to cartwheel to the left, and the damage was extensive enough to require a major overhaul. The pilot got out without any injuries.

The plane was immediately removed from the runway and inspected, but the controls moved freely in all directions. The following morning a more thorough inspection was made, resulting in the discovery of a 1/2-inch open-end wrench in the compartment enclosing the aileron torque tube. The neoprene seal over this compartment was intact but it was discovered that it is possible for small articles to enter this compartment through two inspection holes, or to bounce in if left loose in the area beneath the pilot's seat.

The seat in this particular plane had been removed from the plane three times in order to work on the fuel system, and this work involved the use of a half-inch wrench. It is believed that the wrench was left in the cockpit by negligent personnel. Because the area where the wrench became lodged is inaccessible to visual check, it is normally checked only by feel of the con-



trols for free movement. The shock of the crash and the subsequent lifting of the plane apparently enabled the wrench to fall out of the position in which it was restricting free throw of the control stick.



**Grampaw Pettibone says:**

A good surgeon counts his tools mighty carefully before he stitches the patient up, and it's a mighty good idea for mechanics to keep an accurate check on the tools used in any job, in order to avoid such an error as leaving a wrench in a spot where it can jam the controls.

There may be some lines of work in which being a perfectionist doesn't pay off, but when you're working on an airplane you've got to take time to do the job right. Never underestimate the importance of any repair job that you are assigned. After all, the fellow who takes the plane up after you've worked on it, is counting on you—not just for a good job—but for a perfect one. Anything less than that might cost him his life.

## Another F4U Spin Accident

Spin and stall accidents in the *Corsair* have declined from the high rates which prevailed a year and a half ago, probably because the pilots who are now flying the F4U's are much more familiar with the handling characteristics of the plane and understand correct recovery procedures. However, an accident occurred in January which points

### FAMOUS LAST WORDS:

Oh, H—L! I have a green card, I can make it.

up the necessity for close compliance with the Technical Notes and Orders relative to this type.

A pilot with a total of 465 hours of flight time, of which 126 were in the *Corsair*, attempted an Immelmann turn with an empty belly tank installed. (A violation of Technical Order 40-46.) He commenced this maneuver at 7000 feet with an entry speed of 270 knots indicated. When the nose was well above the horizon, but before the aircraft had reached the inverted position, the plane stalled and immediately entered a normal left spin.

The pilot reports that he retarded the throttle, and then made four distinct attempts to recover from the spin before bailing out at an altitude of about 3000 feet. During each attempt he believes that he used full opposite throw of the controls, that is, full forward stick and full right rudder.

The plane was buffeting and shaking violently, and he experienced considerable difficulty in forcing himself out of the cockpit. He finally managed to roll out, head first, over the left side, after drawing his feet back under the seat and pushing as hard as he could.



**Grampaw Pettibone says:**

I'm afraid that I have to agree with the accident board's opinion that the reason you didn't recover from the spin was that you didn't hold full opposite controls for a long enough period—at least two full turns. If you had done this, you wouldn't have had time to make four distinct attempts to recover before bailing out. The contractor's tests on the spin characteristics of the F4U-4 show that it takes slightly longer to come out of a left spin than a right spin and that full opposite controls (against the stops) must be used to effect recovery. Stick forces are admittedly high and it takes both hands and a lot of pressure to hold the stick in the full forward position in a well-developed spin. THE FULL REVERSED CONTROLS MUST BE HELD UNTIL ROTATION STOPS AND THE AIRPLANE ASSUMES A NORMAL DIVING ATTITUDE.

By now I'm sure that you've read just about everything that's been printed on spin recovery in the *Corsair*. Anybody that has to bail out of a spinning plane always does; but for the benefit of the boys in the top balcony let me say this again:

If you fly the *Corsair* without knowing everything in Technical Order 20-46 "SPIN RECOVERY CHARACTERISTICS IN THE F4U," Brother, you ought to have your head examined!

## Dear Grampaw Pettibone:

Upon returning to NAS ALAMEDA from a dive bombing qualification flight, the pilot of an AD-1 attached to VA-19A, a Lieutenant, attempted to lower his gear for landing, but found that his wheel indicator showed the tail wheel to be in the "up" position. A visual check by tower personnel confirmed this. The pilot then climbed to altitude and continued his efforts to get the tail wheel down, but without success.

At this point the C.O. joined him in the air, and after going through the emergency procedure again with negative results and talking the situation over, it was decided to try a wheels landing using the bottom dive flap as a tail skid in the event that the tail wheel was not down by the time the fuel indicator registered fifty gallons.

Accordingly, the pilot split his dive flaps and simulated a landing procedure at altitude to feel the plane out. Control and stall characteristics of the plane in this condition were favorable, and the pilot felt confident that he could effect a landing successfully. When his fuel supply reached the predetermined level the tower was called for a deferred emergency landing and a long straight-in approach was begun. The pilot brought the plane in at about 85 knots and made an excellent landing.



Damage was limited to approximately six inches being worn off the trailing edge of the bottom dive flap, and the plane was back in commission the next day. We feel that this technique saved many man hours of work and costly repairs to the empennage, hook, tail wheel assembly, and rudder, and so we pass it along for what it's worth to the other AD squadrons.

Incidentally, the tail wheel wouldn't extend due to a material failure in the hydraulic shut-off valve assembly.

Respectfully,  
Safety Officer,

Attack Squadron Nineteen Able.



*Grampaw Pettibone says:*

Many thanks for your interesting letter. Information of this sort which can prevent serious damage to planes is always welcome. Since receiving your letter two

other instances have been reported in which this emergency landing technique was used successfully in AD-1's.



## Mince-meat Department

In the taxi accident pictured above, the tail section of the JRB has been thoroughly chewed up by the prop of the F4U. One passenger received head injuries and even the pilot of the JRB received minor injuries when the pitot tube of the F4U entered the cockpit.

The accident board found that the pilot of the F4U was negligent in failing to clear the taxiway properly before entering and in not making "S" turns while proceeding down the taxiway. Additional factors contributing to the accident were that the JRB was not parked in the usual position for warm up on the runway in use, and the tower was displaying the signal for left hand taxi rules, which was incorrect for that runway.



*Grampaw Pettibone says:*

The passengers in this plane really had a close call. I can't think of anything much more unpleasant than to look back and see a huge rotating propeller chewing into the cabin of a plane that you're in.

Alert, efficient operation on the part of tower personnel could have prevented this accident, but the primary responsibility rests with the pilot. Frequent "S" turns are a *must* in any plane where the forward visibility is restricted during taxiing.

## Dear Grampaw Pettibone:

I read with interest your article in the February 1948 issue of Naval Aviation News about the near accident in the starting of an R5D.

It brought back memory of a similar incident which occurred during my tour of duty with NATS, in which the victim was not quite so fortunate.

While on duty one night as Engineering Watch Officer, one of my mechs brought word to me that a man had been hit by a prop. Expecting the worst, I summoned an ambulance, got a stretcher and ran to the man's aid. To my surprise the man was lying beneath the plane, unconscious, but not terribly cut up.

A later questioning revealed that the mech who had been repairing a starter which would not mesh on the #4 engine of an R5D. After the discrepancy

was repaired, an electrician in the cockpit was to try the starter. The mech cleared away all personnel under the number 4 engine. He then signaled to the man in the cockpit that all was clear. As he did so, he ducked under the number 3 engine. The electrician in the cockpit then meshed the starter on the number 3 engine which he had been energizing by mistake.

The mech was caught by the first swing of the prop blade. He was knocked unconscious and cut and bruised quite painfully, but fortunately his injuries were not permanent.

Sincerely,  
Ensign, USNR



*Grampaw Pettibone says:*

If you want a close shave go to a barber. When working around the world's fastest blades give them a wide berth.



## An "Orchid" For G.C.A.

As a general rule the "Blind Leading the Blind" isn't productive of very favorable results, but when the blind leader has the help of GCA, both can come through in fine shape as was demonstrated recently at the Naval Air Station at Grosse Ile, Michigan.

On the 24th of January a cold front moved in so rapidly that an SNJ-4 and an SB2C-4 could not get on the field before it was obscured by blowing snow. The ceiling was down to 300 feet and visibility was variable from  $\frac{1}{8}$  to  $\frac{3}{4}$  of a mile and expected to continue this way until after dark.

The SNJ had joined up and was flying formation on the SB2C when his communications with the tower became intermittent, probably due to snow static on low frequency. Both the tower and the GCA unit were able to hear the SB2C loud and clear on VHF.

The SB2C was directed around the pattern and brought in on precision to where the runway could be seen with the SNJ hanging right in there. As both planes came over the end of the runway the SB2C was given an emergency pull-up, and the SNJ made a safe landing. A few minutes later the SB2C was brought around the pattern and also landed safely. Neither pilot had ever made a GCA approach before.



*Grampaw Pettibone says:*

That's what I call using the old noggin! Congratulations to the GCA operators, the tower operator, and the pilots for some savvy headwork which prevented the loss of a plane. Incidentally, I imagine the pilot of the SNJ had a rather odd feeling in the pit of his stomach when they got down below three hundred feet before sighting the field. After all he couldn't hear the GCA instructions, how could he?