



GRAMPAW PETTIBONE

Wrong Canyon

A formation of two OE-1 aircraft was enroute from Santa Ana, California to Litchfield Park, Arizona. After takeoff, the lead pilot climbed to about 3000 feet and found that he was just under the overcast, so he lowered his altitude a bit and started looking for San Juan Canyon, a pass through the mountains.

Instead he inadvertently turned up Trabuco Canyon, a dead end street, and here's his story of the trouble that followed:

"The flight was uneventful until reaching a point almost through the pass where I realized that what had appeared to be distant clouds were right in front of me and were sealing off the end of the pass. This cloud bank extended from the terrain up to the overcast. As I recall, the possibility of turning around in the canyon was out of the question. I continued into the clouds trying to find a hole through and instead found a mountain on the other side.

"Immediately, I pulled up straight ahead in a steep climb with full throttle and radio for the second plane to do likewise. During this steep climb, partly on instruments, I saw the ground passing very close below my wheels. Just as I broke through the top of the overcast at about 4300 feet, my airspeed was 50 MPH and a stall was imminent. I attempted to do a 180° turn and dive back down the mountain side to regain airspeed, but half way around the turn the aircraft stalled and began losing altitude. I didn't try a conventional recovery from the stall for fear of diving into the mountain side. Instead I tried to lower my flaps to help me recover and had unlocked my shoulder straps and reached for the flap handle when we descended out of the clouds and struck the mountain side.

"I later learned that the other OE-1 had crashed a short distance below my wreck."



Grampaw Pettibone Says:

Most of these dead end canyon accidents (we have one or two every year) end up with sadder results than occurred here. Although both planes were strikes, the two pilots and their passengers survived with relatively minor injuries—thanks to shoulder harness and safety



Dilbert's tale of canyon small
Which ended with a mountain wall
Seems to have given Gramp the shakes—
His heart's too weak for such mistakes.

belts. The lead pilot did receive a rather deep gash across the bridge of his nose, because he had unlocked his shoulder strap to actuate the flaps.

A change in the position of the flap handle so that it can be actuated without loosening shoulder harness is indicated.

Years ago I read of a pilot who got himself into a fix like this and managed to get out with a whole skin. When he found himself approaching the end of the canyon with insufficient room to turn around, he pulled back on the stick and performed an Immelman, then dove out of the canyon.

The safest bet, however, is to stay out of canyons that are too narrow for a normal 180° turn.

Dear Grampaw Pettibone:

Several years ago I ran across an article in a now forgotten publication that dealt with the extinguishing of engine fires in flight. The procedure advocated therein appeared to me to be very logical yet it does not agree with the procedures as outlined in *Navy Technical Note No. 4-49*, nor does it agree with pilots' handbooks that I have read. The procedure advocated was as follows:

1. Engine fuel selector valve for affected engine off.
2. Crossfeed, crossover, or any similar means of feeding fuel to affected engine, OFF.
3. Mixture control full rich, increase power output of engine.

4. When engine dies due to fuel starvation, feather prop.

5. Discharge fire extinguisher, if available.

6. Switch OFF, mixture control idle cut-off, cowl flaps open until engine and nacelle cools.

The outstanding feature of the above procedure allows fuel remaining in the lines, carburetor, strainer, etc. to be burned harmlessly in the engine rather than in the nacelle. This procedure presumes that most dangerous engine fires in flight are caused by failure of the fuel lines or carburetor and not by failure of the induction system. The net heat liberated in the nacelle (assuming fuel and not oil is burning) would be much less.

What is wrong with this procedure, Grandpaw? Isn't it better than shoving the mixture control straight to idle cut-off?

One other point concerning engine fires that I hear pilots argue about—Should the cowl flaps be open or closed when the fire is burning?

LCDR, USCG



Grampaw Pettibone Says:

I think you may have something in the suggestion that it is better to shut the fuel off at the source and thereby let much of the fuel in the carburetor and strainer burn up in the engine. I doubt if much of the fuel in the line could be drawn as I don't think that fuel lines from engine selector valves are vented.

The cowl flaps should be open when the fire is burning. This affords some cooling, whereas with the flaps closed the heat is greater, and the flames tend to hug the contour of the nacelle causing more damage, than if they had been open.

The important points to remember are:

1. Cut off the fuel supply to the burning engine by any means available.
2. Feather the engine or place the prop in high pitch if it cannot be feathered.
3. Ventilate the engine by opening all cooling flaps.
4. Discharge the fire extinguisher.
5. Turn off ignition and electrical switches.

While you are doing this, your co-pilot should be warning all crew members to buckle on their parachutes and get ready to abandon the plane, if necessary.

After all, one of two things is going to happen: either the fire is going to go out, or it's going to be your turn to join the Caterpillar Club. If the latter is the case, don't waste any time debating the jump.

Flaps, Please

An F9F-2 pilot was cleared for takeoff on a runway that was being used for FCLP. In his haste to get out of the way before the next plane in the landing pattern came around, he neglected to lower his flaps. He was carrying a full load of fuel, including tip tanks. Here's his description of what followed:

"The takeoff roll was normal up to the point where I felt that the plane should take off. However, the plane would not leave the ground. Thinking that perhaps I did not have enough speed for a takeoff with full tip tanks (this was my second experience with them), I allowed the plane to roll on, and then suddenly I knew that the flaps were up. From this time on it was completely a matter of quick decisions. Mine was to remain on the deck, because it appeared to me that I would not get off before the end of the runway and running off the end of the runway with full power did not appeal to me.

"I pulled the throttle back and began riding the brakes. I saw that the plane was not going to stop before the end of the runway, so I locked the brake pedals and turned off the high pressure cock."

The F9F finally stopped—2,000 feet beyond the end of the runway—with major damage. The pilot broke several speed records getting clear of the plane, but fortunately there was no fire. He concludes his statement with the remark, "It is said that the plane will take off without flaps, but it is my firm belief that I would not have been off the ground at the end of the runway. . . . The accident could have been prevented had the check-off list been completed."



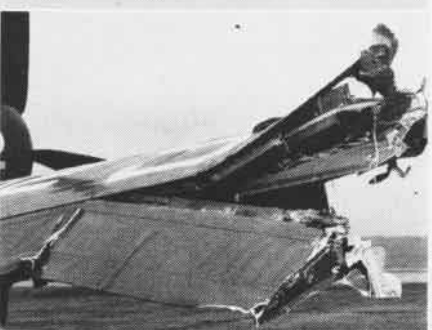
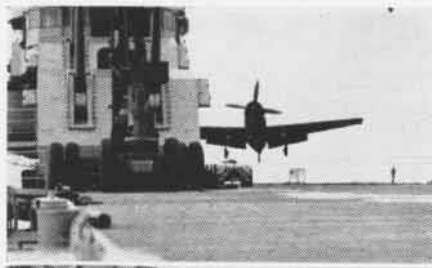
Grampaw Pettibone Says:

This chap was plenty lucky in having lots of clear area at the end of the runway. Just a few days ago I read of an aborted takeoff in an F2H-2 with about the same amount of runway remaining. In this case, however, the plane hit a drainage ditch 225 feet beyond the runway, cartwheeled and burst into flames. The fire was of such intensity that it was impossible to remove the pilot's body until the flames had been brought under control by the crash crew approximately one hour later.

Don't rely on memory. If you do, sooner or later you'll find yourself in trouble. Use the check-off list for every landing and takeoff.

A Flying Machine

The series of pictures in the adjoining column show that the AD-4 can take plenty of abuse and still stay in the air. This, of course, is no news to those who remember the famous case a couple of years ago of the AD that



took off and climbed to about 200 feet with the wings folded.

This accident occurred during carrier qualification landings. Following the cut the pilot landed in a three point attitude, and the tail hook skipped a couple of wires. As the barriers loomed up ahead, the pilot pulled the stick back in his lap abruptly and the AD ballooned over the barriers. Unfortunately the tail hook caught the top wire of the #3 barrier throwing the plane into the ship's island. After the island crash, the AD struck the deck on the port wheel in a violent skid.

When the pilot saw that he would be unable to stay on the deck, he poured on full power and made a successful flyaway. On orders from the ship, he proceeded to North Island, accompanied by a wingman, and made a landing there without further damage to the plane.

As can be seen in the last photo, approximately five feet of the starboard wing was sheared off. The aileron was torn from its outboard hinge mounting and was hanging at trail.

Too Close Abeam

A young Ensign made a normal deck takeoff prior to commencing carrier landing qualification in the AD-4. On his first pass, he commenced his turn from a position too close abeam. As he approached the 90° position at approximately 150 feet of altitude and in a tight turn, he felt the plane start to settle and added power. The AD stalled to the left, and hit the water before the pilot could effect a recovery.

When the water cleared away and the pilot saw that he was right side up, he unlocked his safety belt and climbed out the port side. More than half the port wing was gone and the fuselage was twisted with a large hole aft of the canopy on the port side. As the plane started to settle, the pilot jumped off the wing and swam toward the helicopter sling.



Grampaw Pettibone Says:

One reason why insurance companies charge extra hazard premiums to Naval aviators, is that there isn't much margin for error in a good many of the tasks that they must learn. This fellow made a mistake that has cost us a lot of lives and a lot of planes during the years.

He brought his protective helmet back with him and from the looks of it, he probably would have been knocked unconscious on impact had he been without it.

The Accident Board recommended that when practicable during carrier qualifications, an experienced pilot be launched with new pilots to help set the pattern.