GRAMPAW PETTIBONE

Return to Base Immediately

While proceeding to the target for dive bombing practice, an SBD-4 pilot noticed a drop in oil pressure and power. He elected to continue the flight, however, and after the first dive, was not able to get sufficient power to climb back up for another dive. Not until then did he decide to return to base. Complete engine failure seven miles short of the field made a water landing necessary. The plane was lost. The pilot fortunately escaped without a scratch and his rear seat man was only slightly injured.

▶ *COMMENT*—**Although power plant failure did occur in this case, poor judgment on the part of the pilot was responsible for the loss of the aircraft. To attempt to continue flight in the face of engine malfunctioning, except in the case of emergency, is a ridiculous and inexcusable decision for any pilot to make. He should return to base immediately while a deferred forced landing is still possible. In nearly every case, prolonged flight will aggravate the engine trouble. Even if a forced landing is successfully executed after complete failure, the engine will undoubtedly be severely damaged.**

Pre-Flight Check

A normal take-off was made by a PV-1. At 150 feet altitude it was seen to nose over into a steep glide to the ground where it crashed and burned, causing the deaths of the entire crew. Upon investigation it was discovered that the bolt which attached the forward end of the push-pull tube to the elevator quadrant had fallen out due to the previous loss of the securing cotter key and castle head nut. As a result, the pilot had no elevator control.

It developed that a machinist's mate, during the course of the last 30-hour check, had failed to inspect the entire security of the control cable attachments and fittings. According to his knowledge of the system, he would

have had to remove the armor plate and sand bags before he could have made a visual inspection of the connection of the forward end of the push-pull tube to the elevator quadrant. He elected to consider this part of the control system inaccessible and made no mention of his omission on the report form. He was considered a responsible mechanic by his immediate superior, so no check was made of his work.

It could not be determined at what time the cotter key and castle head nut worked loose, but after the 30-hour check the airplane was flown only once before the crash. Evidence strongly indicated that had the control system been carefully and completely checked in accordance with the 30-hour check form, this tragic accident would not have happened.

▶ *COMMENT*—**The station concerned has taken remedial action to insure against the recurrence of a similar accident. The commanding officer states:**

> **"The bolt which attaches the elevator push-pull rod to the elevator control wire quadrant is now inspected by use of a long-handled mirror which is placed through the lightening holes in the bulkheads at fuselage stations 508 and 522. This inspection is very simple and requires only that the elevator be held in the 'up' position. When the elevator is in the 'up' position the elevator push-pull rod is moved aft, thereby facilitating an inspection of the forward attaching bolt by use of the mirror and flashlight."**

Pilots in this squadron are now making their own inspection of this attachment as part of the plane's regular pre-flight check.

Blind Canyons

Case 1. An SBD pilot was on a familiarization flight over a South Pacific island recently when he decided to descend to a low altitude and fly up a canyon. The canyon narrowed rapidly and suddenly came to an end with steep cliffs blocking further flight. Realizing that it was impossible to fly over the cliffs, the pilot attempted a 180° turn, but the canyon was too narrow to permit this and the plane crashed with fatal results.

Case 2. Upon encountering broken clouds which capped the ridges in his vicinity, a ferry pilot decided to proceed below the cloud base. He let down and began following a transcontinental highway. All went well until the climbing road entered a narrow ravine. Here the pilot found the cloud base extending to the ground. He then attempted to turn around but, upon realizing the

ravine was too narrow, he elected to make an immediate landing in a small clearing. The landing was not very successful.

Grampaw Pettibone says:

These are not pilots' nightmares! They are actual case histories and help prove that you can't just sit there and fly without thinking. You must use *foresight* or you, too, will find yourself in a blind canyon some day.

Check-Outs

With an experienced pilot coaching from the rear seat, a 260-hour pilot was being checked out in a J2F-5. After two successful touch-and-go landings, another approach was made and, upon contacting the runway, the airplane groundlooped, causing major damage.

In his endorsement to the trouble report, the wing commander said: "Touch-and-go landings do not serve the purpose of teaching new pilots how to land strange types of aircraft. It has therefore been directed that, henceforth, the use of the touch-and-go type of practice landing be discontinued dur-

ing the initial stages of the check-out. Each landing will be a complete evolution involving taxiing out, take-off, landing, rolling to a stop and taxiing back again for another circuit. When complete familiarity with the ground handling characteristics has been achieved then only should touch-and-go landings be permitted."

Senseless Risks

Two flight instructors finished their naval aviation careers under the following circumstances:

a. They were performing acrobatic maneuvers in an N2S-3 which was specifically restricted to instrument flying.

b. These acrobatic maneuvers were being conducted below the altitude specified by regulations.

c. Neither pilot was wearing his shoulder harness. Because the airplane had almost recovered from a spin when it crashed, the administrative report stated that injuries might not have been fatal if shoulder harnesses had been worn.

Grampaw Pettibone says:

Isn't that an awful price to pay for a bit of thoughtless fun!

And the sad part is that this isn't an isolated case; many another aviation career is being snuffed out just as senselessly. What's more, these unnecessary deaths will continue just as long as some pilots think they are so hot they don't need to pay any attention to flight regulations and safety instructions.

If there were only some way to pound into the thick skulls of such aviators the fact that safety rules aren't issued to hamper pilots, but to protect them. Each one is the result of many years' experience and is based on the proved limitations of both airplanes *and* pilots.

Will Power

After night glide bombing practice a three-plane section of SBD's was circling the field at 800 feet prior to break-up for landing. They flew into a rain squall and the leader apparently did not shift to his instruments in time. He began losing altitude rapidly and steepened his turn, and without any apparent effort to recover from this dangerous attitude, flew into the ground. The No. 2 man followed him in, but the No. 3 man realized their descent was taking them too low and recovered at about 200 feet.

This is, by no means, an unusual type of accident. Some pilots evidently lack the will power necessary to shift immediately from "contact" to "instruments" when the conditions demand. This transition involves psychological factors which are impossible to reproduce accurately in synthetic training. If you cannot shift from "contact" to "instruments" at a moment's notice without letting the element of surprise upset you, you may meet the same fate as the SBD pilots mentioned above. Excellent training is obtained by flying through broken or scattered clouds, necessitating frequent transitions from "contact" to "instruments." (This is not authority for cloud flying in unauthorized areas.)

It is also good practice to refer to your instruments frequently while on "contact." Then if you should unexpectedly fly into some condition of reduced visibility you are better able to shift to instrument flight immediately. It is much easier to maintain control of your plane on instruments while it is in normal flight than it is to recover from some unusual position on instruments.

After you have learned how to fly on instruments, then it is merely a matter of will power, self control and practice. When the time comes and you find yourself in instrument weather for the first time and with no safety pilot, don't get panicky. Relax, you know what to do. Your airplane doesn't change its flying characteristics when it is in a cloud, so it's up to you to make yourself fly the plane just the way you have been taught in instrument flight procedure.

Mid-Field Charlies

After completing a precision landing check, a primary student in an N2S-3 landed near the circle to pick up his check pilot. The overconfident instructor (over 1,000 hours) then climbed in the front cockpit and attempted a take-off from *mid-field*. The airplane became airborne but insufficient runway remained to gain enough altitude to clear obstructions at the end of the field. With a violent, low-altitude turn, the pilot managed to avoid collision with a farm house but was then

confronted with telephone wires which he tried to fly under. He was only partly successful; the airplane crashed into a cluster of trees and burned.

Grampaw Pettibone says:

Now isn't that a sweet exhibition for a full-grown instructor!

How can we expect students to be safe solo fliers if they learn unsafe flying habits from some of their instructors and check pilots?

As far as I am concerned, it is much worse for an instructor to pull a dumb stunt like the above than for anyone else. It isn't enough to tell your student what is right and wrong. You can tell 'em till you are blue in the face, but unless you practice what you preach, it doesn't mean a thing. As the Chinese say, "One example is worth a dozen lectures."

Not Safe for Solo

At 4,000 feet, directly over his home field, an F6F pilot experienced complete engine failure. A badly muffed approach landed him on the fairway of a golf course, 300 yards short of the airport, resulting in major damage.

Grampaw Pettibone says:

Looks as though this pilot either had lost the precision landing technique he had developed during training or he wasn't familiar with the glide characteristics of this airplane.

Only by practice can you "keep your hand in" on precision landings. And of course you know that every airplane has its own special glide characteristics.

Smart pilots make some power-off approaches as soon as they start flying a new type plane so they know what to expect in an emergency. Then they continue to make a power-off landing once in a while just to keep in practice. (They also remember to blimp their engines during these glides.)