

GRAMP AW PETTIBONE

Attention Line Chiefs

Several recent ground accidents have occurred as a result of planes jumping chocks while engines were being warmed up by inexperienced ground personnel. In every case, insufficient brake pressure was held. Ground personnel who have been designated as qualified to start engines of certain type aircraft should be cautioned to inspect for proper placement of chocks before entering the cockpit and to apply sufficient brake pressure at all times when the engine is being started or is being turned up beyond idling rpm.

Flat Tire Landing

Bombing Squadron 133 submitted a report on the landing characteristics of a PV-1 airplane with a flat tire.

Upon returning to the field after a six-hour flight, the pilot made a normal transport landing. As the wheels touched the ground, the safety ring flew off the starboard wheel. The tire rolled off the wheel 2,000 feet down the runway. The plane remained on the runway, sending up a shower of sparks, until it came to rest 2,000 feet farther on.

The pilot reported that there was a noticeable vibration after the tire came off. As the plane went down the runway, it had a tendency to veer first to the left and then to the right. This tendency was countered with the rudder and, as the plane slowed, a slight amount of left brake was necessary to counteract the drag of the right wheel.

'Pass the Bailing Wire— I Gotta Get Home'

While making a cross-country flight, the pilot of an SNJ-4 drifted off course and because of low fuel supply and approaching darkness, elected to land at an airport short of his destination. A



fence was struck during the landing, resulting in considerable damage to the airplane.

The next day the pilot and passenger (a CMM) repaired a hole in the port stabilizer, but left untouched several holes in the underside of each wing and the battered leading edges of both wings. They then decided that the airplane could be flown, and took off. At the next stop, however, the operations officer grounded the plane as "unsafe for flight."



Grampaw Pettibone says:

Perhaps the pilot thought his 1,000 hours of flight experience qualified him to handle the airplane in this condition. Unfortunately, however, it takes more than pilot technique to fly a plane with badly damaged wings. Except in an emergency, better let the aeronautical engineers decide what the flying characteristics of an altered airfoil are and not attempt to find out by experimenting.

As an example of what might have happened in the above case, let me tell you about a recent TBM crash. This TBM hit a flock of ducks, striking three or four with the leading edge of the wing, which flattened it and destroyed its airfoil characteristics. Since the plane seemed under control, the pilot attempted to make a forced landing. As airspeed was reduced in the final part of the approach, the plane made a half roll and hit inverted.

This fatal accident could have been

avoided had the pilot tested the stall characteristics of this plane while still at altitude, in compliance with Technical Order 48-40. Note carefully that this pilot thought his airplane was controllable, but the leading edge of the wing had been so deformed that under certain flight conditions the flying characteristics of the plane had been altered enough to cause complete loss of control.

I wonder if our SNJ bailing-wire pilot realizes how close he came to taking his last unnecessary risk when he took off with damaged wings. A plane temporarily grounded for repairs is much more of an asset than one permanently grounded as the result of an unnecessary crash.

PV-1 Night Take-Off Crash

After becoming airborne during a night take-off, wheels were retracted normally. About 200 yards past the end of the field the plane was seen to nose over slightly and fly into the ground.

In analyzing the accident, the investigating board gave the following opinion: "After reaching what he thought was a safe altitude to clear local obstructions the pilot nosed over prematurely and excessively, and flew into the ground at a gliding angle."

Switch Off



The plane captain of an SBD experienced difficulty one morning in starting the engine. Upon leaving the cockpit he forgot to turn off the ignition switch. While pulling the propeller through, the engine backfired, causing him to be struck on the head

by one of the blades.

Up-to-Date Logs

In investigating a recent aircraft accident, it was found that aircraft and engine logs were not up to date. The board made the following comment on this situation:

"In regard to the discrepancies found upon investigation of the airplane and engine logs of subject airplane, it is desired to emphasize the importance of maintaining airplane and engine log

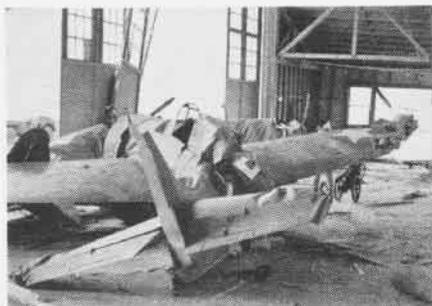


books up to date and exactly correct at all times. Laxity in keeping these logs can result in serious consequences, both to personnel and material."

COMMENT—These observations are fully concurred in and it is recommended that units check to see that all pertinent data are promptly logged. In this connection, overhaul units should insure that overhaul work and incorporation of any "changes" are logged, as this information is an important part of the history of any airplane.

No Way to Enter a Hangar

In taking off, the pilot of an F4F-4 noticed the left wing start to dip just as the wheels were leaving the ground.



He gave it more gun, got immediate increased left torque, and the Grumman veered left and smashed through a hangar, taking out a 12-inch-square wooden post and making mincemeat out of two Cubs.

No Substitute for Common Sense

A PBJ was taking off at night with the first pilot at the controls. The side cockpit lights being inoperative, the pilot was forced to manipulate the yoke with his left hand so that he could play the fluorescent lights on the instrument panel. He then nudged the co-pilot and told him to lock the throttles. Owing to noise in the cockpit and darkness, the co-pilot was unable clearly to interpret the signal and thought it was intended that he get ready to retract the gear. In an effort to get the throttles locked, the first pilot again nudged the co-pilot who then raised the landing gear. The plane was not yet airborne and settled to the runway where it skidded for about 300 feet. A hydraulic line was broken and fire consumed the aircraft.

Grampaw Pettibone says:

Both pilots agreed that the accident was caused by a misinterpretation of signals between two pilots who were not familiar with each other's procedures. If this were the first time for this type of accident I wouldn't be so upset, but it isn't the first time, not by a long shot! In nearly every previous case there was signal confusion.

But there is something more to it than mere misinterpretation; a lack of good old common sense was indicated on the part of the co-pilots involved in these accidents. Something so elementary as a premature retraction of wheels on take-off should have been obvious to them. A co-pilot isn't supposed to be along just for the ride. He is supposed to assist and learn. He does have responsibilities.

Come on co-pilots; get on the ball! I'm jumping on you this time because you're mainly at fault in this type accident. Your main job is to help the pilot, not make life more difficult for him by increasing his responsibilities. You'll appreciate a good, wide-awake assistant yourself when you get to be a first pilot.

Ignominy

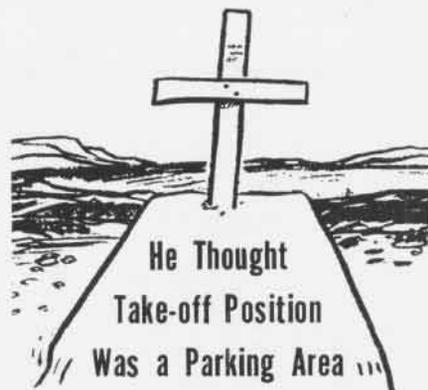
An N2S was dispatched to search for a man overboard from a freighter. Upon reaching the area to be searched, the passenger (also a pilot) sighted an object in the water and took the controls. While circling the object at low altitude, he felt the stick jerk slightly and released the controls, *thinking* that the front seat pilot had taken over. The airplane then took matters into its own hands and flew into the water. The would-be rescuers became the rescued, as they were picked up by the freighter they had been sent to help.

Grampaw Pettibone says:

Pure carelessness and negligence! There is no excuse for ever varying the correct procedure for changing control, as laid down in Article 13-111 *BuAer Manual*. It was written specifically to prevent just this dumb sort of accident.

Keep Your Head

During dive bombing practice, the propeller governor drive of an SBD-5 failed, causing the prop to shift into positive low pitch. The pilot became rattled and decided to land immediately at a nearby municipal airport. The decision was OK, but in his excitement he forgot to lower his wheels.



Collapse of SNC-1 Landing Gear

Several SNC-1 landing gear failures (gear collapse on landing) have been attributed to malfunctioning of the retracting and down-lock mechanism. It appears that nothing short of a complete redesign of this system will remedy the trouble, but in view of the status of the SNC-1 and the minor nature of the accidents, it is impractical to make this major change. However, most, if not all, of these accidents could have been avoided if the hydraulic hand pump had been used to force the retracting cylinder to completely extend and the down-lock to engage. It is recommended that pilots, after lowering the landing gear, operate the hydraulic hand pump to build up and maintain full pressure prior to every landing.

More Parachute Sense

The pilot and crew of a TBF were forced to bail out over mountainous territory. All landed safely, but considerable difficulty was experienced in locating them from the air. They were



dressed in khaki flying suits and were not easily distinguishable against the natural background of the terrain. One man was not found for four days and went through many unnecessary hardships. Had these men spread their parachutes in a conspicuous place and stayed with them, or at least carried a sizable portion of the canopy to signal searching planes overhead, they could have been spotted and rescued in a very short time.

Mooring Equipment

The pilot of a PBM was directed to tie up to a mooring buoy. The buoy had a four-inch line tied to it with the eye of the line lying across the top of the buoy. Thinking this was the regular buoy line, the man in the bow put the eye over the plane's port snubbing post. The line was only a few feet long, however, and the sudden strain on it pulled the snubbing post out of its installation.

Pilot said, "This was due to my ignorance of length of line on buoy and to my not instructing bow man to use plane's own buoy line."