GRAMPAW PETTIBONE

Pre-Flight Checks

On coming in to land, an FG pilot was able to extend only one wheel, due to a leak in the hydraulic system. When he attempted to use the emergency CO_2 system, he discovered that the handle was *missing*.

This necessitated a one-wheel landing during which the airplane sustained considerable damage.

Grampaw Pettibone says:

Sure this could be put on the pilot's check-off list. So could a thousand other similar things, but then the pilot would never get in the air.

This is one of the many points on which the pilot has got to depend on maintenance personnel. Steps MUST be taken to insure their inspections include these items.

Whispered advice to pilots: Since your neck is at stake, always personally check as much of this stuff as you have time for. And don't forget to raise a big stink whenever you find anything wrong.

Reversal of Perception

Of course, we all know that the horizon indicator in a gyro horizon remains in a fixed position with respect to the actual horizon and the little plane on the instrument which represents our plane, revolves around it as shown in fig. 1.

Occasionally a pilot who has stared intently at the instrument panel for a long period during an instrument flight, becomes the victim of a reversal of perception. He perceives the horizon bar tilting rather than himself tilting with respect to the horizon. For instance, when he makes a left turn, he sees the horizon bar tipped to the right, as shown in fig. 2, and he endeavors to level it by lowering his left wing. This increases his angle of bank to the left and, as his nose drops, a graveyard spiral may result.

The chances of this mistaken conception occurring are increased if the pilot has been under strain for a long time and is fatigued. Preventive action lies in being aware of this danger and in continually reminding yourself that you can always bring the wing up to the horizon but can never bring the horizon down to the wing.

F8F Landing Gear Pointers:

Evidence indicates that some pilots do not have the "word" on the proper emergency procedure for lowering and locking the F8F landing gear.

In the first place, before operating the landing gear control, be sure IAS is sufficiently reduced. TO 72-45 says the maximum speed for lowering the landing gear is 175 knots. If the gear does not lower after operating the control lever:

1. Check your hydraulic pressure.
  a. If pressure is below 1250 psi with selector on SYSTEM, one of two things is probably at fault; either there is a leak in one of the systems, or the engine driven hydraulic pump is malfunctioning. Your procedure should be as follows:
    1. First, test for a leak. Place the selector on "Landing Gear" and work the hand hydraulic pump. If there is no leak, hydraulic pressure should be built up in about 10 double strokes. Repeat test for other 2 systems. After locating leak, do not use damaged system. (Also, do not turn selector to SYSTEM). If leak is determined, it then will be necessary to supply pressure to good system (or systems) by hand pump.
    2. If there is no leak in any system, the engine driven pump apparently is malfunctioning. In this case, turn selector to "Landing Gear" and employ hand pump while flying at minimum safe flying speed.

2. If the hydraulic system is OK or the above procedures fail to lower and lock the landing gear, the following steps should be taken:
  a. Place landing gear control in "Down" position.
  b. Slow flying speed to 120 knots or under.
  c. While imposing one negative "g" on airplane, pull emergency landing gear release ("T") handle.
  d. Rock the airplane in order to lock the wheels in "DOWN" position. The red "T" handle control releases the landing gear and landing gear door uplocks (main wheels) in the same operation, and opens the dump valve which empties the hydraulic cylinders of fluid, thereby allowing the wheels to drop into the down position.

See *Pilot's Handbook* for further explanation.

Grampaw Pettibone says:

Suggest you F8F guys make a copy of this and keep it handy in the plane. You may need it in a hurry some day.

The Penalty

A pilot with 618 hours took an F6F out for an engine test flight at an advanced base. When he returned to the field, he pulled up into a climbing turn at a speed of approximately 180 knots, then attempted a barrel roll at 300 feet altitude. The nose dropped while in the inverted position, and at the end of the roll the plane was headed for the water just offshore from the airstrip. The pilot attempted to pull out, but due to his low altitude, he was still in a 20 degree dive when he hit.

As the squadron commander said, "This accident exemplifies the penalty exacted for violating flight safety rules. All pilots in this unit are constantly reminded and admonished not to violate established rules of safety and have done admirably well. It is impossible to dream up a reason for this low-altitude maneuver; a dead man puts out no information. However, it is believed and sincerely hoped that this accident will impress upon all pilots what poor judgment might lead to."

While Hirohito's emissaries signed surrender documents on the deck of the U.S.S. *Missouri* in Tokyo Bay, Third Fleet carrier planes droned overhead symbolizing the might that brought Japan to her knees. Crew members muster under the yawning muzzles of the *Missouri's* rifles. ➡

Belly Floppers

Reports of wheels-up landings during familiarization flights and night FCLP are received at the rate of approximately one a day.

These accidents seldom occur the first time around, but rather on subsequent passes. This indicates that some pilots get progressively more careless during touch-and-go landings or following a wave-off. They either fail to go through the check-off list each time or neglect to check the indicators to *insure* that the wheels are locked.

It is noted that the preventive action being taken by an increasing number of squadrons and training units is to require pilots to leave their wheels down for all bounce drills and during night FCLP. It is the consensus among former squadron commanders and combat-experienced pilots, however, that this procedure is all wrong. They admit it may reduce the wheels-up landings in the units concerned, but they contend it is faulty training and merely projects these accidents out into the Fleet with attendant serious effect on Fleet operations. They insist that the check-off list must not be violated, pointing out that the sooner in his career it is learned that a pilot is incompetent, the better for all concerned.

One other reason for not leaving the wheels down is that few planes will stand much of this without over-heating.

During daytime, a signalman at the incoming end of the landing runway, to give a wave-off when wheels are not down, has prevented many a belly landing. The signalman, however, cannot tell whether the wheels are fully locked—this still remains the pilot's responsibility.

At night, a variation of this system has proved to be very effective and is recommended for trial. For best results, three signalmen are required. The senior one is stationed at the extreme incoming end of the runway, preferably on the right side. The other two signalmen are stationed approximately 200 yards and 350 yards, respectively, farther down the runway. Each signalman has a Very's pistol and the senior signalman also has an Aldis Lamp and a second Very's pistol for use in case of misfire.

The man at the end of the runway waits until the incoming plane comes abeam, so as not to blind the pilot, then carefully checks the wheels with his Aldis Lamp. If wheels are not down, he fires his Very's pistol, which signal is repeated by the other two signalmen up the runway. The pilot may not see the signal of the man at the end of the runway, but the signals from the other two men should be directly in his line of sight.

"Do Unto Others . . ."

A PBY pilot was flying at 5500 feet on instruments through heavy, swelling cumulus clouds. Suddenly, terrific air currents threw the plane on its side. After losing 2500 feet altitude and reaching a speed of 200 knots, the pilot finally recovered with a split-S.

Believe it or not, when the pilot filled out the "Yellow Sheet" on this flight, he didn't say a word about the plane having been subjected to such strain or of having exceeded the maximum allowed airspeed or of having to pull the plane out with such force.

The plane was scheduled for an afternoon flight. Immediately after take-off, the new pilot noticed something was radically wrong, but since he was heading over land, he had to gain altitude before he could turn around. He landed as soon as possible, taxied back to base and reported the plane to be seriously out of balance.

Inspection showed that the plane had been severely strained on the previous flight. It was estimated it would take four weeks to put it back in flyable condition.

Grampaw Pettibone Says:

My Gawd! Does a wing have to fall off before some pilots will report it?

This pilot certainly didn't give his fellow fliers much consideration. I wonder what he would have done if he had been scheduled to take the same plane up again without having it checked. I certainly hope he would have had more sense than that, but it looks doubtful.

The Yellow Sheet is the pilot's "insurance." It insures that Maintenance and Engineering will fix up planes between flights or, if they are not immediately fixable, that they are grounded. The only way this system will work, however, is on a mutual basis—you write the other fellow's "insurance" on the Yellow Sheet, and he writes yours. Remember the Golden Rule!

GRAMPAW'S SAFETY QUIZ

ALL AVIATORS *should know the answers to these questions. In the air, the penalty for not knowing may prove fatal. If you miss an answer on the ground, penalize yourself by looking up the reference.*

1. **In case of structural or control damage in flight as the result of a failure or collision, what piloting procedure should be followed?**
2. **What is the proper procedure for fitting a life vest?**
3. **What is the difference between normal rated power and take-off power?**
4. **What is the minimum angle for crossing a civil airway during instrument flight?**
5. **Do regulations forbid diving on wild fowl or frightening them in any way?**

(Answers on page 32)

Corsair Warning

During an *Immelman* turn an FG-1A entered an inverted spin. The pilot (inexperienced in this model) was unable to recover and bailed out.

The investigating board was of the opinion that the pilot's main difficulty was his unfamiliarity with this airplane. Slow speed at entry and abrupt manipulation of the controls during the maneuver undoubtedly were the principal factors causing the spin. Failure to recognize the inverted spin until it had progressed sufficiently to develop high control forces, accounted for recovery not being effected.

The paragraph on acrobatics in the *FG Pilot's Handbook* says: "Inexperienced pilots shall not enter loops or *Immelmans* at less than 280 knots indicated air speed. This speed may be lessened as more experience is gained in these maneuvers."

The prohibited maneuvers and flight restrictions on this airplane are contained specifically in Technical Order No. 67-45.

Landing Procedure

Several air stations have placed the following operating procedure in effect to reduce needless landing accidents:

When entering the base leg of the traffic pattern, the pilot is required to call the tower, identify his plane and report, "Turning on base leg, wheels down and locked."

If this signal is not received or if two-way radio contact cannot be maintained, the pilot automatically is required to make a low approach over the control tower at an altitude of not less than 500 feet. If the landing gear appears to be down and in place, the tower then grants appropriate landing clearance by radio or light gun signal.