

# GRAMPAW PETTIBONE

## That "Wheels-Up" Bogey

A review of wheels-up landing accidents indicates that a considerable number of them occur because pilots do not follow the standard procedure for lowering and checking the landing gear.

Wheels should be lowered (not above limiting speeds) before entering the landing approach and *before* the flaps are lowered. This sequence enables the pilot to *feel* the wheels lock down, helps reduce the speed of the airplane to the point where flaps can be lowered safely and gives the pilot time to make a visual check of the landing gear indicators before entering the final stage of the landing approach.

## PB4Y Take-off Technique

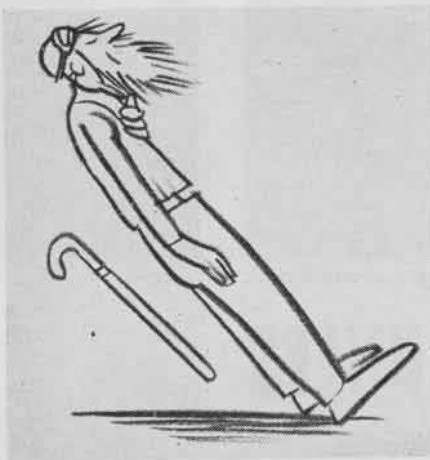
When he had reached an airspeed of only 100 mph. during approximately 2400 feet of his take-off run, a PB4Y pilot apparently decided he could not become airborne during the remaining 800 feet of runway. At this point he closed all throttles and applied brakes.

Hard application of brakes set up a terrific forward pressure on the nose gear causing it to collapse. The aircraft immediately settled on its nose and went off the end of the runway in this attitude. It was damaged beyond repair.

The investigating board gave an excellent analysis of this accident. Excerpts follow:

"The pilot's psychological reaction to a short runway and his first take-off with military load was to change his normal take-off technique. As he states, he deliberately held the nose wheel on the ground to get maximum speed before becoming airborne. As is well known, this technique is incorrect for the PB4Y aircraft. He should have applied gentle back pressure on the controls as the plane was accelerating to relieve the pressure from the nose gear and to give the aircraft a positive angle of attack.

"When the pilot states that it seemed as if a 'dragging' effect suddenly started to take place, it actually did. What was happening was that the negative angle of attack brought on by the 'nose down' position of the aircraft in the take-off run, tended to fly the aircraft into the ground, thereby creating a dragging effect which progressively increased as the speed increased, which further tended to hold the nose on the ground. It is believed that when he actually did try to raise the nose off the ground, the necessary strain was



such that he *thought* something was wrong and consequently would not be able to become airborne in the remaining runway. When the pilot applied brakes under these conditions, the strain on the nose gear became so excessive that it collapsed."

## Crime Does Not Pay

The following reprint from the *Aviation Safety Digest* of the Ninth Marine Aircraft Wing should be of interest to all pilots:

In an iron-fisted effort to stamp out violations of flight rules, Wing Court Martial Boards are imposing strict punishment on pilots found guilty of this all-too-common practice.

The following cases are typical of the sentences imposed:

**Case 1.** For flying over a populated area at an altitude of less than 1000 feet above the ground, pilot of SNJ was tried by general court martial, found guilty and sentenced to lose \$50 of his pay for three months, total loss of pay amounting to \$150.

**Case 2.** Pilot of SBP was placed under arrest on charge of flat-hatting. At a general court martial pilot was tried, found guilty and sentenced to lose \$50 of his pay for ten months, total loss of pay amounting to \$500.

**Case 3.** Tried by general court martial on the charge of flying at an altitude of less than 50 feet above the ground, pilot of F4U was found guilty and sentenced to lose \$50 of his pay for twelve months, total loss of pay amounting to \$600.

**Case 4.** Pilot of an SBP executed a slow roll at an altitude of approximately 1000 feet. Placed under arrest, pilot was tried by general court martial, found guilty and sentenced to lose \$70 of his pay for ten months, total loss of pay amounting to \$700.

In connection with Case 2 and Case 4,

it is worth noting that the pilot of the plane behind attempted to simulate the maneuver, crashed and was killed.

Since all pilots know the flight rules, it is felt that there is no justification for such outright violations which are costing hundreds of thousands of dollars in material and the loss of many lives.

No warning will be issued. The offender will pay fully for any violation of flight rules.

## Fool-proof Pilots

An F6F pilot neglected to go over his check-off list before coming in to land. He also failed to shift to the tower radio frequency and therefore did not hear the warning that his wheels were not down. The investigating board made the following comments concerning this accident:

"The safety devices installed on this aircraft make it as fool-proof as possible. Unfortunately, this can not be said of all pilots.

"This is the first wheels-up landing since this squadron was commissioned about eight months ago. Every effort will continue to be made to prevent the contempt of fundamental safety precautions that familiarity breeds. The 10,000th landing must receive the same care given to the first."

## "Safe" Altitude

An SNJ pilot flew through some small trees when his engine momentarily cut out immediately after take-off, but was able to remain airborne. He then climbed to 1000 feet and there tested the stall characteristics of his airplane to see if it would be safe to attempt a landing.

▶ **Comment**—This test procedure was correct except that 1000 feet is not a "safe" altitude for checking the stall characteristics of a possibly damaged airplane. T.O. 48-40 directs that, if the pilot suspects his control system may have been damaged, he shall immediately climb to a minimum of 5000 feet to test his controls. He should conduct the test in the vicinity of his ship, station or other suitable point, after notifying the base of his predicament. This technical order contains other advice that merits re-study.

There is never any let-up in recognition training in Fleet operations. Sharp-eyed gunners and trained observers are constantly on the lookout for enemy planes. An error in recognition could cost them their lives, perhaps sink their ship, or doom a friendly plane that failed to properly identify.





## Deck Spotting

Reports indicate deck handling crews on some carriers are spotting *Corsairs* too close to each other in the wings-folded condition. This results in damage to the flaps when they are later lowered to provide a step for cockpit access.

It is recommended that deck spotters be given a demonstration of the extra clearance needed to lower flaps and warned to spot the planes accordingly.

## On Your Toes!

Following a routine training and test flight, the patrol plane commander of a PB4Y-5 designated his first pilot to make the landing. The first approach was considered unsatisfactory and another attempt was made. The second approach was fast. Upon being cautioned of this by the PPC, the pilot suddenly, without warning, pushed forward on the yoke, causing the plane to fly into the water from about ten feet, resulting in a fatal crash.

The squadron commander recommended that this crash be brought to the attention of all PPC's as a warning against being lulled into a false sense of security when everything appears to be going smoothly.

► **Comment**—Responsibility for the control of his airplane *always* rests with the PPC. He must be particularly alert when less experienced pilots are at the controls during critical maneuvers such as take-offs and landings.

## Don't Spin The Corsair

*Case 1.* A *Corsair* pilot (116 hours in type) attempted a loop with insufficient air-speed and fell off into an inverted spin. Assuming he was in a normal spin, the pilot pushed the stick forward. He soon became aware of the inverted spin, however, and chopped the throttle, applied opposite rudder and pulled back on the stick. Due to improper adjustment of his seat and rudder pedals, he was unable to get full throw of the rudder. Failing to recover, he bailed out at 1000 feet.

This squadron thereafter required that all acrobatics in *Corsairs* be started above 8000 feet and cautioned pilots to have no less airspeed for such maneuvers than that specified by the manufacturer for inexperienced pilots (see section on "Acrobatics" in *Pilot's Handbook*).

*Case 2.* A *Corsair* pilot, while making an overhead gunnery run, rolled over on the sleeve too late. Upon seeing his predicament, he pulled through too rapidly, causing a high "g" stall and spin at 10,000 feet. The spin slowed momentarily at 8000 feet, but from

there on continued in a normal spin until it hit the water. This pilot did not jump.

It was thought the pilot may have blacked out just before he went into the spin. Being a small man, he also may not have had his seat and pedals adjusted so as to enable him to give hard-over rudder.

► **Comment**—Due to the relatively heavy control forces involved, voluntary spinning of the *Corsair* is prohibited by TO 128-44. Since involuntary spins do occasionally occur, however, it is necessary that all *Corsair* pilots be familiar with the spin recovery characteristics of this airplane. These are fully explained in TN 54-44. The number of airplanes reported as spinning in from high altitude indicates that not all pilots are familiar with this technical note.

During a recent three-month period, 13 *Corsairs* were spun in during gunnery, combat and acrobatic maneuvers from "safe" altitude. Eight of the 13 pilots failed to jump, or jumped from such low altitude that they were killed.

Being thoroughly familiar with TN 54-44 and complying with the following recommendations will help insure that YOU will not be included in the next compilation of this category of vital statistics:

1. Begin your practice maneuvers with plenty of altitude.
2. Avoid unintentional stalls by starting your maneuvers with proper speeds and by pulling into new attitudes in a manner to avoid "blackout" and high "g" stalls.
3. Make sure that you know the proper recovery technique for various types of spins in your particular airplane. To en-

able you to carry out this technique, insure before each flight that your rudder pedals and seat (and cushion, if necessary) are properly adjusted to enable you readily to obtain full throw of the rudder.

4. If you do commit the double-barrelled error of going into an unintentional spin without the ability to recover, don't punish yourself by going on in with your plane. Think this thing through on the ground and make up your mind that if you ever get caught in such a predicament, you will jump while still at a safe altitude.

## Altimeter Settings

*Case 1.* Prior to making a night landing under instrument conditions at an advanced base, a PB4Y pilot was given an altimeter setting of 885. In adjusting his pressure scale the pilot set 815, in error, thus causing his altimeter to read approximately 700 feet low. This was a contributory factor in his overshooting the first half of the runway. Nevertheless, he decided to land rather than go around again. The airplane went off the runway and received strike damage.

*Case 2.* While making an instrument let-down to an airport, an R4D crashed into a rise of ground on the approach. The pilot had apparently failed to set his altimeter setting correctly and therefore approached below the prescribed minimum altitude for that station.

*Case 3.* Upon returning from a mission, a PB4Y pilot found a ground fog had closed in over the field. Conditions necessitated an immediate landing, but due to an error in his altimeter setting the pilot overshot the runway. The airplane received severe damage and had to be stricken.

*Case 4.* A TBF pilot neglected to obtain the altimeter setting before approaching the field for a night landing. He flew into the ground while flying his base (cross wind) leg. Although the crew of this airplane were not seriously injured, the airplane had to be stricken.

► **Comment**—The above cases show the importance of utilizing the current altimeter setting, particularly during periods of reduced visibility.

Altimeter settings can and often do change very rapidly due to changes in temperature and pressure. Therefore, even though a pilot returns to a field from which he only recently departed with the correct altimeter setting, if reduced visibility conditions exist he should again obtain the current setting before he commences his approach.

General information and operating directives are contained in Technical Order 7-45. It is recommended that all interested commands 1. insure that all pilots thoroughly understand this subject, giving such additional instruction and demonstrations as may be necessary, and 2. require strict compliance with the directive.

## 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. At what rpm should supercharger shifts be made?
2. What is the one exception to the rule, that all personnel when flying in naval airplanes must wear parachutes or attachable type parachute harness?
3. When should alternate air be used?
4. With the exception of landing and taking off, what is the minimum altitude for flying above the open terrain elsewhere than over cities, towns, etc?
5. Should "sea level" barometric pressure be used as an "altimeter setting" value?

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