

GRAMPAW PETTIBONE

F4U-4 Handbook Troubles

Records indicate that quite a few F4U-4 pilots do not know the proper procedure for the emergency landing gear extension. It is readily apparent that pilots have either forgotten what they learned or perhaps never read the Pilot's Handbook on the F4U-4, particularly section 1, paragraph 7 on the hydraulic system, and section 4, paragraph 1B on Emergency Operation Instructions.

In emergencies too many pilots are first trying the hand pump instead of using the CO₂ bottle to extend the landing gear. If the CO₂ bottle is actuated subsequent to such an attempt it is possible for both the carbon dioxide gas and any remaining hydraulic fluid to be exhausted over the side and the pilot will never be able to extend and lock his gear.

 Grampaw Pettibone says:

Looks like an epidemic of forgetfulness which is common to pilots who fly the same plane so long that they forget what to do in emergencies or fail to bring themselves up to date on new procedures. Perhaps some of these pilots never did know. It is possible, believe me!

I am willing to bet that during most emergencies some or all of these pilots wished they had reviewed their handbooks or had them along. Actually carrying a handbook is impractical, because the pilot has his hands full in an emergency. Moreover he seldom has time to look up the answers. He should know ahead of time the best procedures for any emergency.

Well, here's some good info taken right from the handbook that all F4U-4 pilots should digest. "It is wrong to use the hand pump first because it draws fluid from the bottom of the hydraulic reservoir, whereas the engine draws fluid from the half gallon level. If the failure of the hydraulic line has permitted all fluid available to the engine-driven pump to be pumped overboard, your one-half gallon reserve remaining in the bottom of the reservoir is sufficient for one operation each of wing flaps, cowl flaps, and gun charging by use of the hand pump. The one-half gallon reserve is not sufficient for full extension of landing gear so that if the loss of fluid is the cause of emergency landing gear extension the pilot will be required to use the CO₂ bottle anyway and the depletion of the half gallon reserve precludes the operation of wing flaps.

Briefly, here is the correct procedure to use for emergency extension of the



landing gear:

- (A) Reduce speed to 110 knots. (This is very important.)
- (B) Release CO₂.
- (C) Reduce speed to 90 knots while the landing gear is extending.
- (D) In event CO₂ bottle does not fully lock landing gear down, the hand pump may be used.
- (E) If the above operation has been successfully completed, then the hand pump may be used to extend the wing flaps.

All these facts are in the F4U-4 Pilot's Handbook and should be thoroughly learned.

Those of you who check out F4U-4 pilots should put more emphasis on this part of your instruction.

Maintenance personnel should check CO₂ bottles more frequently because quite a few faulty bottles have been reported in recent months.

A Rough One!

It was a clear moonlight night and the R5D Plane Commander turned the

Attention SB2C-4 Pilots

Space limitations prevent printing an article on recent accidents in the SB2C-4E caused by malfunctioning of the flaps. Indications are that instructions in SB2C-SBF-SBW Aircraft Bulletins Nos. 239 and 246 are not being followed. Read these and live longer.

controls over to his first pilot and retired to a bunk. A few minutes later the first pilot got out of the seat to get a bowl of soup, leaving a relatively inexperienced copilot at the controls. The flight orderly came forward and asked the copilot if he cared for any soup. He said that he did not and in his own words:

"Just then the orderly tapped me and pointed out a cloud ahead that we were about to go into. I immediately took the plane off the automatic pilot and made a slight bank to the right to avoid the cloud . . . Seeing that I could not avoid it I straightened the plane and eased back the throttle to 20 inches of manifold pressure. The turbulence was slight for the first ten seconds and I pulled back on the yoke to slow the airspeed down to between 170 and 180 MPH. The turbulence became very severe for about 5 seconds and then there was a violent downdraft . . . I did not have my safety belt fastened. When the plane hit the downdraft I left the seat and my head hit the ceiling. Holding onto the yoke and watching the instruments all the time I did not notice any rolling of the plane. The rate of climb which was reading 2,000 feet per minute up when we hit the downdraft went to 5,000 feet per minute down. The entire turbulence did not last over 30 seconds.

Of the 26 passengers and crew members aboard, 11 were injured. The plane commander after his rude awakening checked on the condition of the aircraft and passengers and decided that the flight could safely continue to Kwajalein. A number of the passengers whose injuries were serious were apparently suffering from shock and did not realize the extent of their injuries when they were questioned by the plane commander. About three hours later morphine was administered to those in severe pain. Kwajalein was notified by radio that there were injured passengers aboard the flight and a doctor and ambulance were standing by when the plane completed the eight-hour flight from Guam.

 Grampaw Pettibone Says:

Some jolt, eh, fellows? It's a mighty good idea to have your safety belt fastened at all times when you're at the controls and there isn't much excuse for flying through a cloud on a

bright moonlight night without warning the passengers to fasten theirs. In this case only one passenger had his safety belt on, and the injuries to the others which consisted for the most part of scalp and head lacerations would have been minimized if all had been instructed to secure their belts before the plane entered the cloud.

In the interest of accurate navigation it isn't practical to dodge every cloud encountered, but I guess you fellows will think twice next time you meet a vertically developed cloud which could be easily avoided. This type of cloud packs a big wallop. Dodge 'em if you can, and if you see that you can't go over, under or around such a cloud, be sure to enter it in straight and level flight and reduce speed at the first sign of turbulence.

P.S. As a result of this accident Commander Naval Air Transport Service has promulgated an order requiring pilots to keep their safety belts on and securely fastened whenever on duty at the flight controls of a NATS aircraft.

F4U Inverted Spins

A group of four F4U-4's were on an authorized division tactics flight. Near the end of the period the flight leader put the planes in column formation and performed some acrobatics. While attempting an Immelman at about 11,000 feet, the number three plane lost airspeed at the top and fell off in an inverted spin. The pilot attempted to recover for five or six turns and, being unsuccessful, bailed out as the plane spun past the 5000-foot mark.

He did not jettison his canopy and as a result suffered minor abrasions on his left arm from contact with the canopy while disengaging himself from the plane. The pilots' parachute opened promptly, while the plane continued to spin for about three more turns and then went into a diving spiral and crashed into the ground at an angle of about 60 degrees.

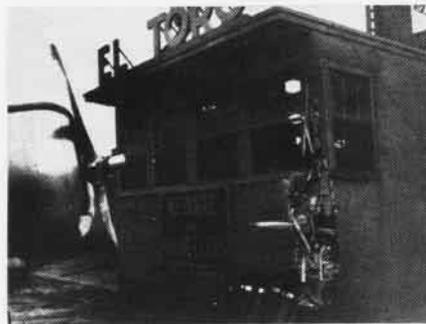
Grampaw Pettibone says:

Unfortunately, this pilot had not read Technical Note No. 20-46 on Spin Recovery Characteristics in the F4U. He was attached to a squadron operating in China and this Technical Note was not received until a few days after the accident. Had he been familiar with the proper recovery procedures, he would have pulled his throttle and RPM controls back as soon as he realized that he was in an inverted spin. He would in all probability have effected a quick recovery, for flight tests have demonstrated that it is difficult, if not impossible, to enter an inverted spin in an F4U except at high power settings. These same tests showed that while the plane would spin to the right, inverted spins to the left could not be induced even with high power settings.

Voluntary spins, either normal or inverted, are prohibited in the F4U because of the high control forces which may be required for recovery. (T.O. 67-45.)

However, any pilot who flies an F4U should know the correct recovery procedures for both types of spins. Read Technical Note No. 20-46. As one F4U pilot put it:

"It's worth reading even if it only saves one life—particularly if it happens to be mine."



Rough Rider

One rainy day, a mechanic was busily engaged in "checking the mags" of an SNJ. As he was "revving up" the engine, he stuck his head down into the cockpit to watch the tachometer closely. The next time he looked up, he was in a different spot in the line, and he was confronted with the sign in the above picture. While this mechanic had his head down, he blazed a marked and distinct trail among planes and buildings located on or near the line. See the picture. Here's the list of damage done:

1. Right wing of SNJ clipped windshield off one jeep, which caused plane to swerve to the right.
2. Right wing and propeller tips struck operations building, causing the SNJ to ground loop violently.
3. Then left wing struck operations building.
4. The SNJ's tail inflicted minor damage to wing and cowling of one

GRAMPAW'S SAFETY QUIZ



1. If you are lost and faced with a forced instrument let down over terrain you do not definitely know, what should you do?
2. When pulling a propeller through by hand prior to starting an engine, in which direction should it be rotated?
3. On takeoff when the horizon is obscured by darkness or overcast, what is the safest procedure?
4. While on civil airways, at what altitude should you fly when heading: (a) East. (b) West. (c) North. (d) South?
5. If necessary to bail out in a spin, in which direction should you leave the cockpit? Why?

(Answers on Page 40)

JRB parked in front of the building.

5. SNJ suffered major damage to right wing, cowling, propeller, tail and engine.

Grampaw Pettibone says:

What a day! This mechanic did quite a job. He said the brakes were on, but I kind of wonder about that. This episode reminds me of a bull in a china shop. The picture shows that he met one too—El Toro, himself.

"Dear Grampaw Pettibone

"We are an Air Control Group which until recently had no planes or the facilities to maintain aircraft. Now we have one plane assigned to our group which does provide flight time for some of the twenty Naval Aviators assigned. As far as this plane is concerned we assume the responsibility for checking out all pilots who fly it to insure that they are competent.

"In other cases, where our pilots fly aircraft belonging to other organizations we believe it should be the responsibility of the Commanding Officer of the organization having the aircraft to check the pilots out. We thought we could prove this by reference to the *BuAer Manual* but have not been able to find it in writing. In *Naval Aviation News* 1 February 1945 and 15 June 1945 you say the Commanding Officer is responsible, but after carefully checking all your references we still can't determine which Commanding Officer is responsible, the one the planes belong to or the one the pilots belong to.

"Assistant Operations Officer"

Grampaw Pettibone says:

You're right. It is the Commanding Officer of the unit to which the planes are attached who is responsible for assuring that pilots are thoroughly qualified before they are permitted to fly any aircraft. Although he normally will delegate this responsibility to his Operations Officer, the primary responsibility rests with him as Commanding Officer of the unit to which the planes are attached.

I don't think you looked too thoroughly in the *BuAer Manual* for the answer. The paragraph quoted below is from Chapter VI, Section 1, Art. 6-103 of the Manual of the Bureau of Aeronautics:

"COMMAND OF AIRCRAFT—(a) No aircraft will be taken into the air at any time without authority from the proper source as designated by the Commanding Officer of the unit to which the aircraft is attached."



TOMBSTONE

Beneath this stone lies Ensign Wright
Whose clearance called for contact flight.
He felt too proud to turn around
And now he's six feet underground.