GRAMPAW PETTIBONE

Arm That Bomb!

One station reports that bomb disposal personnel are being unnecessarily endangered because pilots fail to arm their bombs prior to release. The report states, in part: "Many unarmed bombs are found buried in the range after each day's flying. Ordnance officers and bombing instructors believe the situation is due to plain carelessness on the part of the pilots, who forget to arm their bombs."

Grampaw Pettibone says:

Undoubtedly, some of these pilots are the ones who, later on actual strikes, will gloriously fight their way to the target, bravely dive through heavy flak to make a direct hit and then scream like stuck pigs when they remember they neglected to arm

their bombs.

The routine cure for this is better indoctrination. In addition, kick up such a general stink about it that it will help them remember. If that doesn't work, I suggest putting some identifying mark on each pilot's bombs before flight. Then, as a gentle reminder to the culprits, allow habitual offenders to help bomb disposal crews remove one or two of the duds.

Standby Crash Equipment

A group of ferry pilots noted that considerable variation exists in the location of crash equipment at air stations throughout the country. In a desire to obtain the best strategic location for such equipment at their home station, they requested information as to whether the standby location of crash crane trucks, fire and rescue trucks and ambulances had ever been standardized at other stations.

Since the factors governing the needs of crash equipment vary at different stations, it is impractical to issue definite orders on this subject. The main objective in spotting standby crash equipment is to locate it where it will reach the scene of the accident in the shortest possible time. Anything that will shorten this time interval will increase the effectiveness of crash rescue operations.





Certain large stations locate a fire and rescue truck near the up-wind end of the operating runway, while others prefer to station it near the center and off to one side of the operating runway. An example of special conditions exists at the Naval Aircraft Factory during catapult shots; the truck is placed at the side of the plane being catapulted and starts moving with the plane, to be immediately available if anything goes wrong.

At certain stations in cold climates, it frequently is necessary to keep trucks in a heated space. Temporary sheds now are being provided for this purpose at stations that do not have properly lo-

cated, heated buildings.

Thus, each station must study its own problems and insure that rescue equipment is spotted where it will be most effective. Don't ever consider the problem completely solved, however. Continued study may indicate improvements, as experience accumulates. Also remember, a new type of operations may require a basic change in the entire rescue set-up.

The mobile training units, described on pages 9-11 of the Nov. 15, 1944 issue of NANEWS (Also see story on crash fire and rescue mobile units in this issue.) now are getting into the field and will discuss these problems and the various types of equipment with all naval aviation shore based activities.

Crystal-Clear Cockpit Commands

Misunderstood cockpit signals between pilots and co-pilots continue to cause a large number of unnecessary accidents. The following accidents occurred at various commands during a

single Four-day period:

Case 1. Just before becoming airborne, the co-pilot of a PBJ-1H closed the cowl flaps. Immediately thereafter, the pilot, not knowing that the cowl flaps had been closed, reached in the general direction of the cowl flap control handle. The co-pilot interpreted this motion as the signal for him to pull up the landing gear. The plane immediately settled toward the runway but the pilot was able to complete the take-off, circle the field and land. Ends of both propellers were found curled back about six inches from biting into the runway. Propellers and crankshafts of both engines had to be changed.

Case 2. On take-off, a JM-1 pilot signalled for the co-pilot to pull back on the yoke to get the aircraft airborne. The plane captain mistook this motion for a signal to raise the wheels, and acted accordingly. The plane bounced two times and slid to a stop. One engine caught fire but the blaze was extinguished by the crash crew. The landing, however, did major damage to plane.

Case 3. The co-pilot, misunderstanding the signals of his instructor, raised the landing gear of an snb-1 too soon during take-off. The broken prop tip tore a large hole in the cabin, in addition to damage to propellers, engines.

Grampaw Pettibone says:

This is an asinine type of accident and, as far as I'm concerned, is always the pilot's fault; no matter if the copilot or plane captain is the one who misinterprets the signal. It's up to the pilot to insure that this can't happen; to indoctrinate his crew and demand that only standard cockpit signals be used, as laid down in Flight Safety Bulletin 19-44 and Aviation Circular Letter 95-44.

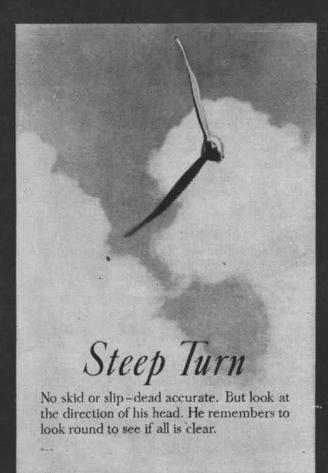
Some squadrons have whipped the possibility of having accidents of the type listed above by simply issuing an order: "Pilots will not retract the landing gear on take-off until at least 50 feet altitude has been attained."

SAFETY IN FLIGHT: These photographs (right) are reprinted through courtesy of the Royal Air Force, with permission of Graham and Gillies, London, who produced the original poster series.



RAMSHACKLE CONSTRUCTION?

So it seems. (But he never forgets to lower his undercarriage when he comes to land.) The Stork goes on flying until he is 70, because he is master of his equipment, and doesn't take chances.





12.000 CONTROLS

Twelve thousand controls in the form of muscles are operated by the Ibis in working its feathers alone. That's a few more than you've got to worry about. The Ibis has to rely on instinct not reason—but he never pulls the wrong lever. The Ibis is a good pilot.



OVERSHOOTING?

Not the gannet. If he comes in too fast or misjudges his glide, he can pull up and still get in. A pilot is not so well-equipped and must make up his mind early to go round again when there is the faintest chance of over-shooting.

Mixture Control

Because of a sudden drop in the manifold pressure, an sb2c pilot returned to the field for an emergency landing. He was coming in satisfactorily and cut the ignition switch, but the engine kept running. He tried unsuccessfully to ground-loop the plane but it ran off the runway and overturned 500 feet beyond the strip.

Investigators, who praised the pilot's handling of the emergency in the air, pointed out that the mixture control should have been used to stop the

engine.

Grampaw Pettibone says:

In the movies and the comic strips our hero always "cuts his switch," but in the more well informed and well indoctrinated circles of naval aviation the mixture control is used first and then the switch is cut.

Unconscious Brake Jammers

After making a normal landing, the pilot noted that his plane started to swerve. He applied rudder, but the aircraft ran off the runway, turned over.

The pilot, upon being questioned, said he had no recollection of applying brakes. Tire marks on the runway, however, led the accident board to believe the pilot unconsciously applied pressure to the brakes during his landing.

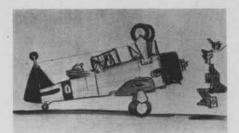
GRAMPAW'S SAFETY QUIZ

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. If you are over a station and place the current "altimeter setting" on the pressure scale of your altimeter, what altitude will it then show?
- 2. If you then land at that station, what will be your altimeter reading upon landing?
- 3. For what maneuvers and under what circumstances should the electric fuel pump be used?
- 4. If, while flying according to CFR, you encounter weather below that required for CFR, what would you do if not currently qualified to proceed on instruments?
- 5. Ground checking of magnetos should be made with the propeller pitch control set in what position?

Answers on Page 40

They pointed out that this frequently occurs after a pilot has raised his seat to make a landing. This makes him stretch to reach the pedals and this position also changes the angle at which



his feet contact the brakes. There is then a natural tendency to touch the brakes with the toes without being aware of it.

Grampaw Pettibone says:

The board is right, but there is a remedy!-Educate your feet. Keep enough of your mind on them to insure that they won't press down on the brake pedals unless you give them the word. In fact, keep your dumb feet off the brakes until you actually need them.

Every aviator is entitled to as much forward and downward vision as he can get during landing. There are two things you can do to increase this vision while at the same time remaining within easy reach of your pedals: I. Before take-off, adjust the brake pedals so you can reach them comfortably with the seat raised, and 2. Put a cushion behind you, or if you are built particularly close to the ground, two cushions. The cushion system (not practicable in all types, due to cockpit design) pushes you forward where you can see over the cowling better and at the same time keeps you near the pedals. Again, be sure to keep your toes off the brake pedals when making approaches and landings!

"I Can Make It!"

When the weather became bad, a pilot flew up a mountain valley hoping to find a break so that he could cross the mountains to his home station. The fog also settled in the valley, however, and the pilot crashed into the side of the mountain when he turned back.

The Commanding Officer said, "This is evidently a case of border-line weather, with the pilot thinking 'I can make it' and going on. We are continually stressing to pilots that 'when in doubt' about the weather, a 180 degree turn is excellent life insurance."

Airport Traffic Danger

A transport plane was granted authority to make a turn contrary to normal traffic after take-off. At about this time a fighter requested permission to land but was directed to orbit and wait. Shortly thereafter there was a fatal collision between these two airplanes while they were in the traffic pattern.

Very evidently, both pilots were equally remiss in not keeping a sharp lookout for other aircraft in the vicinity of a busy airport.

The tower, also, was not on the job in this case. Common sense should have indicated the need for a special warning broadcast to all aircraft in the vicinity when a maneuver contrary to normal traffic was authorized.

Comment-Whenever an accident occurs, the question immediately arises as to whether a flight regulation could be issued to prevent a recurrence of the conditions which caused it.

In reviewing this case, consideration was given to a regulation forbidding traffic control personnel from authorizing any maneuver contrary to the normal traffic pattern. It was decided, however, that such a restriction might do more harm than good. Circumstances occasionally arise which make a turn against the normal traffic circle the safest and best course of action. To forbid its authorization under such conditions would hamper control personnel in the proper performance of their

Naturally, authorization for such maneuvers should be restricted to the minimum and should be granted only after careful consideration of all the circumstances involved. Once granted, however, other aircraft in the vicinity should be given immediate warning thereof. Control personnel must recognize their added responsibilities when rules are suspended.

Large Movements of **Navy Aircraft**

In order to provide proper liaison between activities directing aircraft movements and those furnishing facilities to transient aircraft, particularly where activities and facilities of both the Army and Navy are involved, the following procedure should be followed:

Whenever large movements of Navy planes are scheduled to land at an airfield where facilities and accommodations are required, all possible prior notice of the flight should be given to the commanding officer of that airfield. If the point of landing is under Army control, notice should be given sufficiently in advance to permit the necessary arrangements to be made. Such notices are a matter of courtesy and also add greatly to the efficiency of aircraft movements. Where notice that a field is closed to transient aircraft has been published, and landing at that field is considered necessary, the senior pilot of the flight should send the request for landing sufficiently in advance to obtain permission or make other arrangements to land.