



GRAMPAW PETTIBONE

Just Like Shooting Ducks

Case #1. The pilot of an F2H-2 started his third gunnery firing run on a vertically rigged tow banner from a position approximately 2,500' above and 6,000' on the starboard beam. On this run he got too far astern of the target and approached the firing range at a deflection angle of 15° or less in a slightly nose down attitude.

He continued firing until too late to break away, and his starboard wing struck the mid-point of the tow bar. The tow bar imbedded itself in the wing at a point three feet outboard of the wing folding point to a distance of about 18". The pilot checked the controls and found



horse-whipped. You would have a tough time living with yourself if the pilot of the tow plane hadn't successfully ejected.

It's a lead pipe cinch this lad won't win any popularity contests around his squadron. The last time I heard, he hadn't quit flying, but he was getting mighty jittery towing for all of the gunnery hops.

From 1 July 1952 through May 1953, there were 22 accidents attributed to jet aircraft striking the tow banner, tow bar or tow cable. Nine of these accidents occurred in May. In addition, during the month of May two tow planes were hit by gunfire. Both sustained major damage. The pilots seem to fare better than the aircraft, however, since only one pilot was injured while 19 of the aircraft sustained substantial damage.

I eased on over to the field the other day to see if I could borrow a jet and a tow pilot to make a few gunnery runs and get some first hand information on this jet gunnery problem. They just laughed and said my beard would probably obscure the gunsight as well as the target. It's just as well, though, because I couldn't get any volunteers to tow for me either.

Well, I got to thinking about hunting ducks. I recalled that it's a whale of a lot easier to get a mess of hits—and ducks—when you are shooting up the bird's stern-sheets as compared to a full or partial deflection shot. (This may have occurred to some of these lads who like to get the tow target and tow plane in line before opening fire.) However, it didn't take me too long to see that I was getting into a hole as far as making comparisons of duck hunting and jet gunnery runs and that I would have to go back to the available statistics to make my point.

The majority of the jet gunnery accidents resulting in a collision with the target or towed cable show several common cause factors.

1. Pilots were apparently concentrating more on getting hits on the towed target than in the break-away.

2. Pilots approached firing range at excessive angle of deflection, had difficulty holding lead and keeping the target in sight, and carried the firing run too close to effect recovery.

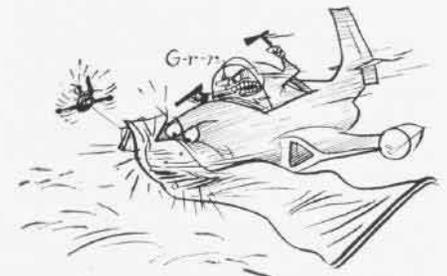
3. Pilots approached firing range at too low an angle of deflection and either shot the tow cable in two and ran into the towed target or carried their attack too close on this near collision course to effect recovery before striking the target.

At this point, a little mental gymnastics reveal a fact that apparently some of our jet pilots have forgotten. On an optimum jet gunnery run the closing speed will be

F9F-5	350 knots
Tow target speed	165 knots
Angle off at firing point	20 degrees
Target altitude	15,000 feet

approximately 340 feet a second. In this case the pilot will only have 1.18 seconds from open-fire to cease-fire (Using 1000' as open-fire and 600 feet as cease-fire ranges). From the cease-fire range of 600' the pilot has less than two seconds to effect recovery. That certainly doesn't give a jet pilot much time to change his mind.

It would be a mighty fine idea for all of you jet pilots to carry a copy of the following safety hints around in your hip pocket—who knows, you may be able to absorb this information the easy way—by osmosis.

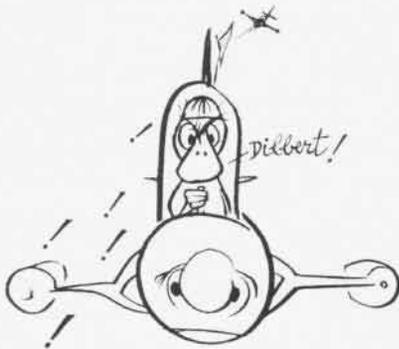


1. Observe a safety cone around the target of no less than 20 degrees or 10 degrees on either side of the line of flight of the towed target and do not fire at an angle of less than 10 degrees.

2. Stay above the target level.
3. Go over the target on break-away.
4. Never fire up at a target.
5. Do not fire on a bad pass.
6. Pull up immediately if you lose sight of the target.
7. Do not make passes into the sun.
8. Keep your windshield and canopies clean.

9. Gain experience before trying to press your passes to minimum range.

10. Know the position of the plane ahead of you before shooting.



that under 200 knots he could control the aircraft. He returned to his base and landed without any further difficulty.

Case #2. Seven F9F-5's took off on a gunnery firing flight on a towed banner. The tow plane leveled off at 25,000' and the other aircraft assumed position to begin their firing runs. On about the tenth firing run on the towed banner one of the pilots got "sucked behind" and below the target on approach. He continued this firing run despite this poor position.

The pilot of the tow plane felt several slight vibrations and then noticed that his aircraft was on fire. He finally was forced to eject and his plane burned and crashed into the sea. The plane was not recovered but both the tow pilot and the accident board are of the opinion that several rounds of 20 mm ammunition fired at the banner somehow found their way into the tow plane, causing the accident.



Grampaw Pettibone Says:

Son, anybody who can't control their trigger finger any better oughta be

How To Die Young

A recent over-water aircraft accident involving seven aircrewmembers revealed that none of them knew how to use their pneumatic life preservers correctly. Records of the squadron showed that some of the men had not had a water check out in over a year. The records of the squadron further showed that in one swimming class, 12 men were scheduled



Dilbert will make Fish Food of his crew, too!

but only five showed up. Of the five showing up, one was too tired to swim, two showed poor technique and one tended to panic.

One of the aircrewmembers who survived the accident but drowned later had his life vest on, but it was neither buckled nor snapped. This man probably drowned as a direct result of not knowing how to use the equipment provided to save his life. Perhaps this man just didn't realize the importance of the survival equipment or perhaps he was like another man in the squadron who didn't participate in water survival courses as he was afraid of the water and unable to swim. Some of the crewmen involved in this aircraft accident were not even wearing their life vests.

 *Grampaw Pettibone Says:*

Great Jumpin' Jehosaphat! When I hear something like this, it really makes my old blood boil! A man who isn't willing to spend a little time learning how to swim or at least use his survival equipment to save his own life shouldn't be allowed in an airplane. Some of the most famous last words I ever heard read "It won't happen to me." However, when it does happen as it did to these lads and you're not ready, it's a little late to worry.

Apparently some of the current written instructions are being rather liberally interpreted. Just for the record I quote some of the requirements of OPNAVINST 3710.7 relating to the use of safety and survival equipment. (1) "Life vests shall be worn during all seaplane flights from the time of embarkation until the end of the flight; during the landplane operations

where flights are made beyond gliding distance of land; and in airship flights over water. (2) "It is the responsibility of the pilot in command of a naval aircraft to ensure prior to take-off that the crew and passengers are adequately instructed on such personal safety and survival equipment and procedures as are required for the particular aircraft in which they embark."

I think that right now is a good time to review your squadron program in regard to check-outs in the use of personal safety and survival equipment. The best way to know this equipment is to use it. The time to use it is before it is needed. Who knows? The life you save may be your own!

Dear Grampaw Pettibone:

In — we've gotten quite witty'
BOMO's the reason, a French safety ditty,
For eight months so far,
We're above safety par,
Consequently we're sitting quite pretty.

A little literary ingenuity is paying off in a big way in our squadron with the creation of BOMO. BOMO is a liberal translation from the French "Bon Mot" meaning "Good word", and in this case catchy limericks and short poems emphasizing safety in the air and on the ground. The BOMO's originally were one line slogans urging observance of safety precautions, but since have become epics in their own right. Amateur poets sprang up from every quarter of the squadron, all with some four or five ditties telling the pilots to take care.

A typical BOMO regarding deck procedures went thus on one of our schedules:

We all know a pilot named Babbit,
Who comes out of the gear like a rabbit,
One day perhaps he'll raise wheels 'stead of flaps
And Babbitt the rabbit has had it.

The BOMO system is by no means all inclusive, but by keeping the pilots' attention focused daily on flight safety, it forms an integral part of the overall safety program.

Although I fully realize that by saying this I invite a nose-up tomorrow, this squadron has had no pilot-caused accidents since the advent of BOMO.

Respectfully,
_____, LCDR, USN

 *Grampaw Pettibone Says:*

It makes no difference the language in use,
That which prevents accidents is always good news,
Congratulations on the excellent job being done,
And let us hope your effort is not the only one.

This Is Dangerous

Shortly after takeoff, fire was seen coming from the port side of a TBM-3W. The pilot had sufficient altitude to make a wheels-up controlled emergency landing on the field. He landed tail first on a grass area adjacent to one of the runways and the plane skidded to a stop. An observer's statement reads in part: "Just before the plane stopped skidding, the pilot came flying out of the cockpit."

 *Grampaw Pettibone Says:*

I think that the observer's statement is a rather liberal interpretation of what actually happened, but there's no doubt that the pilot released his safety belt and shoulder harness prematurely. He sustained major injuries from being bounced around in the cockpit before the plane actually came to a stop.

It's a mighty good idea to remember that on most emergency landings, on land or sea, there will usually be more than one jolt before the aircraft comes to a complete stop.

As a result of this and other accidents where pilots and crew received injuries as a direct result of failure to use the safety belt and shoulder harness properly, I have reached the conclusion that certain elementary facts concerning the art of staying alive and unhurt have escaped a sizable portion of our aviation population.

Just for the record, during calendar 1952, 28 persons were injured as a direct result of failure to use this personal safety equipment—five fatal, 12 serious and 11 minor injuries. Twelve of the 28 persons injured didn't even have their safety belt fastened. There's no tellin' how many people get away with this lackadaisical attitude since the figures given come for actual accident reports.

I don't know exactly how to impress on you lads the importance of using this "life saving equipment" but take it from me



When things get tight—you're in a hurry
You won't have time to stop and worry.
You may not have time in this crisis
To even adjust your safety devices.
So unless you want your own grave dug,
You better keep those shoulder straps snug.