

One Flick



By AE1(AW) John Ezell

It had been a good night: not too much maintenance and no pressing issues. The maintenance-control chief even had considered an early secure for a few shops. That mood changed when a shipmate escorted one of our linemen, an AT3, into the hangar.

The petty officer's face was burned like a crispy critter. His skin was solid red from ear to ear and from forehead to chin. The facts behind this incident were amazing.

The AT3 maintainer was with an AEAN—a fellow lineman. They were tying down a P-3 when an NC-10 power unit suddenly stopped running. The AT3 didn't have a flashlight, so he asked his partner for a cigarette lighter. The AEAN handed over his lighter—a sign of true friendship—and offered a warning about fuel vapors. The AT3 walked over to the power cart to check the fuel level, shrugged off the advice, and flicked the Bic.

The NC-10's fuel tank was one-quarter full, leaving warm fuel vapor in the rest of the tank. When the petty officer removed that fuel cap and lit that lighter,

the vapor erupted in a burst of flame. The AT3's head, face, hands, and arms were ablaze in seconds. He then turned and walked toward the hangar. Even though the flash fire lasted only a few seconds, the young man was evacuated by helo to a hospital with a burn unit.

He is recovering well, and his doctors say he shouldn't have any scars. The cause of this mishap is obvious, but it still presents a problem we all must face.

I'm the command safety petty officer for a 500-person squadron with multiple detachment sites around the world, and it's very challenging to build and maintain safety awareness. We have message traffic, magazines, stand-downs, newsletters, and a host of other items to warn Sailors of various hazards. But it's incumbent on each individual to possess a degree of self-awareness.

Many readers probably are asking themselves, "Why did that maintainer light that flame?" I can't explain it. I have been in the Navy almost 22 years and have looked into many fuel tanks. Most maintainers know power units come with a fuel-quantity gauge, but no one trusts this device. Most people also know that gas and flame don't mix, which is why we use explosion-proof flashlights around hazardous materi-

als. A few readers probably wondered why the AEAN had a cigarette lighter—a FOD hazard—on the flight line. I believe the answer can be summed up as “permissive complacency.”

Sailors often cut corners, take chances, become inattentive, fall asleep in class, drive drunk, ignore their supervisor, get in a hurry, resist learning, and use countless other excuses to avoid doing a job by the book. It would be easy to say this petty officer just was stupid. I’d have a hard time disagreeing, but that would be the easy way out. I own some responsibility for this incident, as do our shop supervisors. Leaders set the tone in a squadron. Someone has to stand up and say, “Shortcuts, risky behavior, and shoddy work will not happen in my squadron.” If we don’t set high standards and enforce rules, these types of stupid incidents will continue.

Our leadership discussed this and other mishaps or incidents. We came up with six key components to help solve the problems discussed in this article:

- We need to increase khaki presence and leadership. This effort, commonly called MBWA (management by walking around), is our main tool to defeat lax attitudes and shortcuts, which are two primary causes of ground incidents. Implementing a safety observer program for the hangar and flight line will help. This approach requires an E-6, or above, observer with advanced maintenance-control skills to monitor critical operations (e.g. aircraft moves in and out of the hangar, man-on-the-stand turns, pack-out operations, or many other tasks). This program isn’t easy to do, but the alternative is worse.

- We make practical use of ORM—based on a Delta Airlines program that attempts to reduce incidents through standardized aircraft moves and maintenance tasks. Several squadrons already have implemented this technique, which includes checklists for everyday jobs [visit the Naval Safety Center’s maintenance website at www.safetycenter.navy.mil/aviation/maintenance/ormchecklist.htm for examples of standardized checklists.—Ed.] This effort requires everyone to gather for a quick but thorough brief. Delta calls it “the huddle,” and it is like our QA functional-check-flight brief.

- We often read hazard reports or *Mech* articles about maintenance errors that occurred because of a lack of teamwork and communication. Our team highly recommends implementing a ground-crew-coordination training program [visit our GCT websites

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at www.safetycenter.navy.mil/presentations/aviation/heavygct.htm [helogct.htm](http://www.safetycenter.navy.mil/presentations/aviation/helogct.htm) or [tacairgct.htm](http://www.safetycenter.navy.mil/presentations/aviation/tacairgct.htm).—Ed.], which we now require at check in and then annually. This effort will take time to integrate into our culture, but we must implement it and must protect those training days.


- We believe in 360-degree involvement. The Navy has released several messages stating the need for human-factors councils for maintainers, and this step may help. A few squadrons with multiple detachments assign an aviation safety officer to each aircrew team or detachment. It may be tough to get formal schooling for more than one or two officers per squadron, but in-house training can “grow” others. Dr. Scott Geller in his book, “Working Safe,” says the three “E’s” necessary to improve an organization’s safety culture are ergonomics, empowerment, and evaluation. Ergonomics is the means and processes we use to do our work, and how the human body interacts with those processes and equipment. Empowerment involves a grass-roots review of our procedures, resulting in great ideas from Sailors. Evaluation occurs through frequent QA audits, safety department involvement, and enthusiastic khaki



engagement. Correcting unsafe behavior on the spot is a critical step. Some people don't like peer or superior critiques, but this command-directed approach is necessary to combat personal error, to protect our aircraft, and to save lives.

• We think "intrusive leadership" is one way to stay connected with junior Sailors. This approach shows that leaders care about their welfare, particularly on weekends and holidays. We also have instituted a mentor program, in which junior personnel (E-1 through E-3 and some E-4s) are paired with petty officers who speak with them each weekend day. They talk about the junior Sailor's plans for the weekend: social, travel, and professional. They also discuss possible problems with stress. The mentor program isn't intended to and doesn't invade our people's privacy or personal liberty time because the junior Sailors voluntarily cooperate. Simply stated, "Intrusive leadership means getting involved in the crew's lives—on and off the job."

• Improving the total safety culture is our overall goal. We have to face up to the never-ending battle against complacency and human error. We must take care of issues inside our "lifelines" through concerned leadership and a willingness to listen to our Sailors.

We had an active safety program before this incident, but our maintainer's injury has shown us that we need to fine tune a few items. 

Petty Officer Ezell is the safety petty officer at VQ-2.

Petty Officer Ezell echoes the sentiment that my maintenance department has expressed for more than a year. ORM, GCT and HFIM set the standards that maintainers should follow, and those programs are stressed every time we interact with the fleet. I commend VQ-2's approach in solving these problems and hope only that other activities do the same, before they have their own Bic story.—Cdr. Al Stephens, Naval Safety Center maintenance officer.



For more info...

The quote on "intrusive leadership" came from the summer 2001 issue of *Ashore* (available at www.safetycenter.navy.mil/media/ashore/default.htm). In that issue, a ship's CO and safety officer shared their thoughts and recommendations to reduce personal injuries and deaths, specifically from PMV mishaps.

Attack of the Killer Huffer


By AEC Donald English

It was a clear and brisk January morning in Atsugi, Japan. I was the QAR for the morning launch and was looking for hazards and violators. On this particular morning, the launch was going without a hitch: The checks went well, and everyone was being safe. The aircraft finished final checks, taxied from the ramp toward the taxiway and proceeded to ruin my day.

Out of habit, I grabbed the halon bottle to move it out of the jet blast as the plane turned. I passed behind a GTC-85 huffer unit that was parked next to another aircraft on our flight line. I parked the halon bottle and moved toward the hangar. The jet blast from the taxiing jet suddenly blew the top cover off the huffer unit and into my back! It was a good thump, but I was fortunate because the flat side of the cover hit me. I didn't suffer a major injury, although it rattled my nerves.

I would not have been so lucky had the edge of that panel hit me. The huffer's cover is a steel panel, approximately 3-feet high by 4-feet wide, and is secured with one-quarter-turn dzus fasteners. I don't know why the cover wasn't secured, but it isn't something squadron personnel have any reason to open. The pre-op cards do say to check cover integrity, so I guess we own some fault.

I did learn a few lessons: Everything may appear safe, but don't let down your guard. Always be alert, and expect the unexpected—no matter how long you've been in the business. Never turn your back on an aircraft while the engines are running. Make sure the SE pre-op inspections are done before putting any SE on the flight line.

Any of these steps likely would have prevented the huffer from getting the better of me that morning. 

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