

When Local Practice and "The Book" Collide

By AME2 Christopher Bailey and AME3 Nathan Hardy

My night began with the night-check maintenance meeting. It was a typical event: I found out how many daily and turnaround inspections (DTAs) and maintenance requirements the shop would face. I didn't know it then, but I should have thought more about personal protective equipment.

After the maintenance meeting, my shop began to work on the Prowler DTAs. We had no major problems, so we removed the LOX converters and transported them to the LOX area. Once there, one AME put on the required white coveralls, welder's gloves, face shield, and rubber apron. We then started to service the converters.

Another AME switched out the full converters for the person on the LOX servicing cart. Everything seemed fine. We were following procedures and doing the work safely. A squadron QAR suddenly walked up to me and asked, "Why is your safety observer not wearing his required PPE?"

I was puzzled at first and asked what he meant. It had become common practice to have one AME fill the LOX converters while wearing the proper PPE. During this process, the safety observer stood off to the side—without PPE—to vent excess pressure from the next converter to be serviced. This practice had been followed for a long time; it never occurred to us that we were doing anything wrong.

It didn't take long to realize that we had become lax. We all had forgotten basic precautions for handling LOX. We had allowed local practice to override the book.

After doing some research in the pubs, we found more than one reference in the aviators-breathing-oxygen section of the NAMP. This guidance tells us that **all**

people who handle LOX must wear required PPE. The NAMP also states that at least two qualified people are needed to handle LOX. That clear statement tells me that both people in our story should have been dressed fully.

Our incident raised an important question: If I don't have the required PPE, how could I assist a shipmate should a LOX line rupture and blind my partner? I have read many hazreps, mishap messages, and *Mech* stories that describe how fast an accident can happen—usually in just a split second.

I learned that we must prepare for any unexpected incident to prevent injury or to minimize the damage. The shop also was forced to do refresher training on LOX-handling precautions, which isn't a bad step for any squadron to do.

Our local practices bred complacency and led us to take shortcuts. Every shop must stop this approach, and we must make people realize the consequences of doing a job without the book. Hands-on training is a good way for people to learn, but it can be a dangerous path to follow if you play loose with the rules.

Petty Officers Bailey and Hardy work in the AME shop at VAQ-142. For more info...

These references provide additional information about LOX-handling procedures and should be read by all AMEs:
A. OpNavInst 4790.2H, Volume V, Chapter 5
B. NavAir 13-1-6.4-4, Section 3-3
C. NavAir 00-80T-96, WP 007



By AEAN Samuel Seprish

The day did not begin like any other one. After showing up for work at 0630 and checking to make sure all tools were accounted for, we waited for the morning passdown from maintenance control. When the word came, our shop had only a few special inspections and op-checks. I would celebrate my 21st birthday that night, and, needless to say, the whole shop was filling my head with ideas on a place to celebrate.

Before I could finish my daydreams, the shop supervisor assigned an easy five-minute job to an AE2 and me. We were to go out to 502 in the hangar and check its fire-warning elements and associated systems. This job required us to put electrical power on the jet—an everyday task for the “powerhouse” of the squadron.

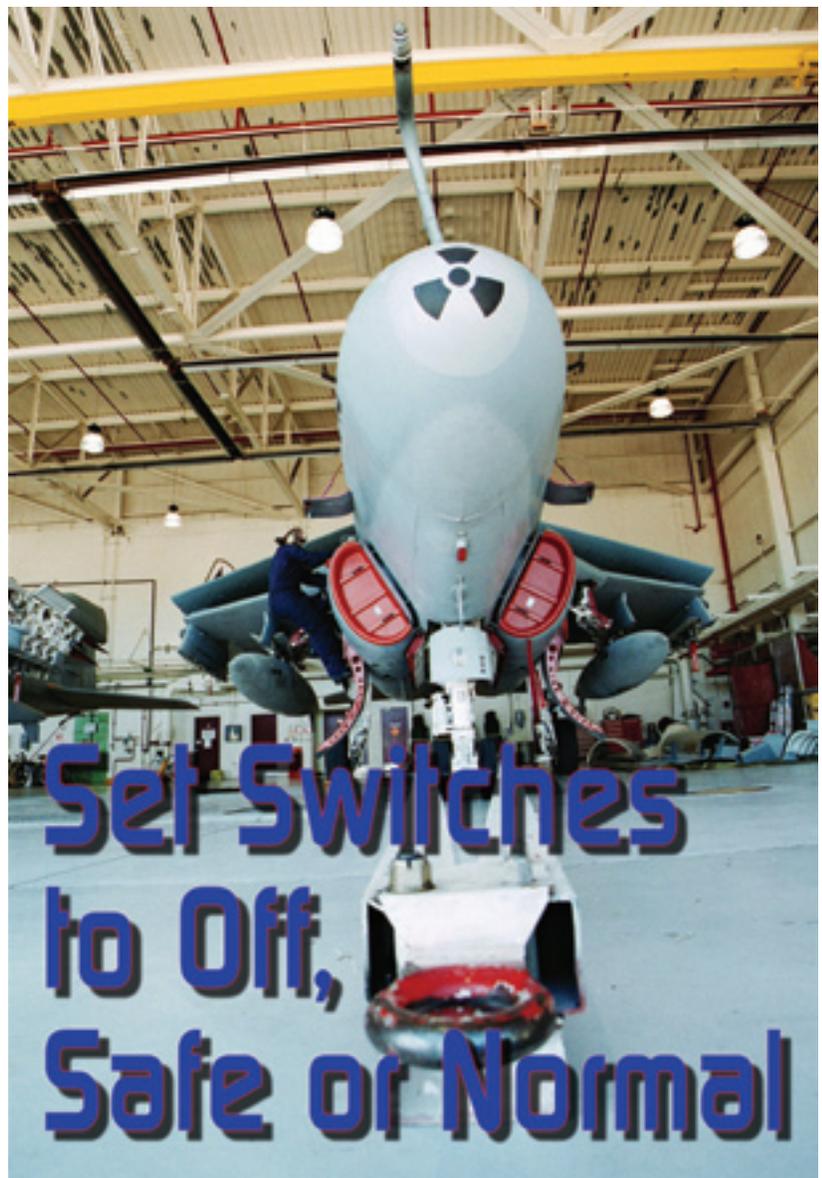
Aircraft 502 was undergoing special inspections, so the control boxes, seats and canopies were removed. A tarp had been placed over the fuselage to prevent FOD from falling into the cockpit. The cockpit essentially was an empty shell.

The AE2 handed me a fuel-management panel and told me to tell him when I had the two cannon plugs hooked up. I strapped on my cranial and climbed the boarding ladder. After wrestling with the tarp for a moment, I managed to get into the dark cockpit. I connected the cannon plugs in just a few moments and yelled, “Go ahead!” I didn’t give the scenario a second thought.

I heard a splashing sound but didn’t realize that noise was fuel spilling onto the deck. I never before had heard this sound and was in a state of shock. I really didn’t know what was happening but suspected something was wrong.

I hadn’t even looked at the switches. The AE2 yelled, “No,” and he tackled an airman making her way toward the external-power receptacle to cut power to the jet. If she had done that, the fuel-dump valves would have remained open and fuel would have continued to dump onto the hangar deck. Everything had happened so fast.

After the AE2 had tackled the airman, he climbed the boarding ladder, reached past me, and turned off the dump switch. I sat in stunned silence, taking in what just had happened. Even at that time, I didn’t realize the gravity of my mistake and the danger my



shipmates and squadron had faced. What would have happened if the fuel had ignited in the hangar?

As an electrician, I forgot a basic and simple rule: make sure all switches are set to off, safe, or normal. These positions ensure the cockpit is ready for electrical power. The fuel-management box was the only panel in the cockpit, and it should have been easy to check. I was thinking more about my 21st birthday than the job and thought nothing could go wrong. I always had believed I was impervious to an error like this but now realize this type of mistake can happen to any unprepared maintainer.

I did learn my lesson about “switchology” and about the need to make sure power is not secured when an EA-6B is dumping fuel. As bad as this incident was, it could have been much worse. Still, this simple five-minute job turned into a two-hour hazmat clean-up detail. 

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