



NAVAL SAFETY COMMAND SAFETY AWARENESS DISPATCH SA 26-21



Procedural Compliance Mishaps

Procedural compliance is about more than simply following publications and standard operating procedures — it's also about trust. Across the enterprise, countless professional relationships depend on that trust, whether between aircrews and maintainers, operators and intel specialists, food service personnel and those they feed, or any number of teams or individuals working together to accomplish the mission. Each member depends on the person beside them to do their job correctly. We expect excellence from our teammates, and we owe them the same. When procedures are followed, confidence grows; when ignored, trust erodes, teamwork suffers, mission effectiveness declines, and risk increases for everyone involved. The examples below show how things go awry when compliance wanes.

Quick Fix, Quick Emergency

During the crew swap for the second phase of a two-event mission, the oncoming helicopter aircraft commander (HAC) accepted the aircraft and climbed into the right pilot seat. The departing HAC advised his relief that the pilot door's top aft edge was worn, rattled excessively and was a detriment to crew resource management (CRM), all points that were documented on an "open" maintenance discrepancy written nearly three months earlier. Before launching, the HAC put a rag between the door and the airframe to dampen the vibration and mitigate the excessive noise; a workaround used by crews flying that aircraft over the past few months. The crew then launched and climbed to 5,000 feet, 70 knots as required per tasking. After 30 minutes or so, the HAC noticed the rag beginning to slip out. He grabbed hold of a small piece of it but was unable to pull the rag further into the aircraft. He let the crew know and told the copilot to descend to a 70-foot hover, however the rag continued slipping further out during the descent. The HAC called out to stop the descent, but seconds later the rag slipped out entirely from the door. The HAC alerted the crew, prompting them to check for any abnormal indications—none were noted. About two minutes later, they heard a loud popping noise, felt a yaw kick and smelled smoke. The HAC directed the copilot to fly toward the ship and called for the ship to set flight quarters, after which the crew executed a safe landing and shutdown. Upon inspection, a piece of rag was found in the inlet particle separator ducting, indicating the rag had been sucked into the engine intake after it slipped from between the door and airframe. — *Placing a rag between the pilot's door and the airframe to decrease noise and vibration is procedural non-compliance, but this mishap goes much deeper. The door discrepancy was properly reported, went unfixed for months, and created a situation where the pilots felt they needed to act. Unit leadership chose not to "down" the aircraft despite degraded CRM during flight ops. The Maintenance Department was unable to fix the issue due to resource shortfalls, forcing a balancing act between available assets and mission tasking. The gaps in this unit's safe-to-operate boundaries were generated by factors outside the unit's control (parts not available) and ultimately set the stage for this mishap. These systemic gaps must be elevated to the accountable risk owner, and unit personnel and leadership must exhaust all efforts to operate safely. Although the rag seemed like a harmless quick fix, repeating this workaround is exactly how the normalization of deviance begins.*



AGAIN with the Checklist

A tow crew assembled at the maintenance control (MC) desk to conduct a tow brief prior to moving aircraft. The crew consisted of a director, tug driver, brake rider, two wing walkers and two tail walkers. Although required to attend the brief, the Quality Assurance (QA) member was absent. The director pressed on (*without QA*) and assigned roles and responsibilities to the crew, who then dispersed to prep the aircraft for towing. The director "partially" filled out the Tow Director's Checklist in MC and then headed to the hangar to help the rest of the crew prepare the aircraft. After their preps, the aircraft canopy was in the fully open position, however the hangar door, which opens or closes by moving up or down, was only "partially" opened (*seeing a potential problem here*). With aircraft ready and tow crew in place, the director had the tug driver move forward ... (*But wait, what about finishing the checklist!?*) The director motioned the driver to steer left to avoid a hangar support column, and he successfully cleared it however, seconds later, the aircraft canopy struck the hangar door, knocking it off its tracks. The director signaled "all stop", and realizing what happened, he directed the driver to back up a few feet and then the tow crew applied brakes and chocks to the tug and aircraft. QA arrived on the scene and began their investigation. — *The checklist is a valuable tool that helps reduce risk when used as intended. The checklist was started but never completed. The step that says "tow path and parking area free from obstructions" was initialed as "complete" before the tow, yet the path was not clear. The signature line specifying QA signature prior to aircraft movement was left blank. QA was absent from the brief because they weren't notified of the move. And oh, by the way ... there were six other teammates besides the director who failed to recognize the clearly visible hangar door obstruction and failed to stop the move. Multiple layers of risk reduction — purposely built into the system so this type of mishap doesn't occur, were effectively bypassed, reducing aircraft availability and resulting in damage costing more than \$400K. Follow the procedures.*

Lucky it was an Arm, not a Head

While underway, a Sailor was going to perform maintenance on the gas turbine generator (GTG). The Engineering Operation Sequencing System Gas Turbine Generator Inspection (EOSS-GTGI) states the module's cooling fan should be left on until the module is at an appropriate temperature but should be turned off before entering the module to ensure the module is not pressurized. Because the module was still too hot, the Sailor left the cooling fan on but ignored the requirement to secure the cooling fan before entering the module. As the Sailor unlatched the module door, it burst open violently, pinning the Sailors' arm between the door and an adjacent ladder, causing multiple bruises. Fortunately, the injuries were not severe, but the Sailor was limited in duty functions for nearly four weeks. — *Had the*

Sailor followed all the procedures detailed in the EOSS-GTGI, the module would not have been pressurized, and the door would not have blasted open. People are fallible, they make mistakes, they forget things, they get distracted and even more so when under stress or fatigued. Checklists and procedural guides exist precisely for keeping us on track, so no step is skipped and tasks turn out the way they should. But we must follow the procedures – every step matters.



File photo, not associated with a mishap

Aux Tank – One, Maintainer – One Less

A maintainer (M1) was tasked with removing an auxiliary fuel tank (aux tank) from the aft cabin of a helicopter. He got an assistant (M2) from the shop, and they headed to the flight line where the aircraft was parked along with the necessary tools and equipment. To remove the tank, M1 stood outside the cabin on the starboard side of the aircraft and reached in to grasp the aux tank handles; M2 was inside the cabin on the port side, bent over in a squatting position to grip the handles. First, they lifted the aux tank out of the floor pan where it was seated and then shifted it to the edge of the cabin flooring near the starboard door opening. As they moved the tank outside the aircraft and lowered it to the deck, the M2's hand got pinched between the tank handle and the cabin deck edge. Feeling a sharp pain, M2 jerked their hand up away from the pinch point, dropping their end of the tank onto the deck. The M1 set down his side of the tank and immediately tended to M2, picking up a piece of degloved skin up from the deck before walking M2 back to the hangar and having someone call an ambulance. While awaiting the ambulance, a senior Sailor nearby grabbed a first aid kit and wrapped the injured finger in gauze, and the degloved skin was put in a clear plastic bag. Unfortunately, the ER staff were unable to reattach the degloved portion of the finger. — *The investigation revealed the manual required three or four people for the task, depending on interpretation, but definitely not two. Yet, over the past year, the squadron, which was short-handed, performed this job with only two roughly 60% of the time. This “normalization of deviance” from required procedure became so engrained into their culture, nobody even questioned it. Proper manning and positioning for the task would have greatly reduced or eliminated the pinch hazard. Bottom line: Read the manual, know the requirements and speak up when you see them being bypassed.*

Key Takeaways

A robust self-assess and self-correct posture with oversight is a highly impactful way to detect and correct deviation from standards quickly and effectively because it exists within the command. Maintain continuous improvement and identify the root cause(s) of procedural failures to understand where gaps exist and what corrections are required. Procedural compliance eliminates unnecessary mission risk.

- **Familiarity often precedes complacency.** A person may think, “I’ve done this procedure a thousand times, I don’t need the pub to walk me through it.” That’s usually the point where a step, caution or warning is missed. Even small mistakes can result in heavy consequences. Follow the procedure every time.

- **Speak up when something is not right.** Everyone has a responsibility to their teammates to intervene when they observe safety hazards, incorrect procedures or an erosion of situational awareness. Whether you call it, “see something, say something,” assertive communication or forceful backup, everyone must feel empowered and obligated to act when they recognize an unsafe situation.

- **Compliance matters in ALL jobs.** The team expects it; it’s our individual responsibility to deliver it. When you don’t follow procedures, you increase the level of risk not only to yourself, but to your teammates as well.

And remember, “Let’s be careful out there”