



Naval Safety Center

LESSONS LEARNED



LL 21-13

AFLOAT WEAPONS NEGLIGENT DISCHARGES

“This ship is built to fight - you had better know how.” – Arleigh Burke

Manning and operating guns at sea is a common naval tradition, beginning in the mid-14th century with cannons onboard ships of sail. During those early days of Naval gunnery, there were very few (*if any*) written operating procedures or safety guidelines. Fast forward 700 years, and you will find an instruction, checklist, or manual for just about every evolution at sea, yet we continue to “accidentally” shoot ship’s weapons when we didn’t mean to.



We often use the term “negligent discharge” in association with small arms mishaps (like a 9mm discharging into the deck during watch turnover), but the term isn’t just for small arms. In reviewing near-miss critiques for the past three years, Naval Surface Force (SURFOR) found that similar events (*but with larger weapons*) resulted in at least nine cases of firing either unintentionally during maintenance or an exercise, or accidentally firing in a direction other than the designated safe bearing. With weapons ranges anywhere from 2 to 15 nautical miles, these deadly rounds pose a danger to anything within the firing radius. SURFOR found the following common themes among the nine near misses:

- All occurred during either Weapons Condition changes, Planned Maintenance, or during a scheduled FIREX. All of these events have very prescriptive procedures that, if followed, will prevent such mishaps.
- All had a root cause of personnel error. The weapons and systems worked as designed. A lack of experience and a lack of qualified supervision were the most common contributors.
- In several incidents, a false sense of urgency was a contributing factor, brought on by poor planning or self-imposed time constraints.

The following table summarizes the near misses. The list includes everything from 7.62mm M-240s to 5-inch guns and an SM-2 (Standard Missile), so there’s a lesson for anyone involved with shipboard weapons. We encourage you to read the full critiques posted in the “CNSL-CNSP Community of Practice” (CoP) in the Joint Lessons Learned Information System (JLLIS) at <https://www.jllis.mil>.

Critique	Weapon System	Evolution	Summary	Watchstanding Principle
2018-04 (LANT)	M-240	Watch Turnover	Fired 1 round while attempting to set Condition III	Level of Knowledge
2019-23 (LANT)	M-240	In-Port Sea & Anchor	Fired 2 rounds across basin while attempting to set Condition III	Level of Knowledge/ Forceful Backup
2019-30 (LANT)	25mm	PMS	Fired 1 round during weapon download	Procedural Compliance/Formality
2019-19 (PAC)	5"	FIREX	Fired while gun was stowed	Procedural Compliance/Questioning Attitude
2019-24 (LANT)	5"	FIREX	Fired at incorrect track	Questioning Attitude/Forceful Backup
2020-12 (PAC)	CIWS	FIREX	Fired on incorrect bearing	Procedural Compliance/Level of Knowledge/Forceful Backup
2017-01 (PAC)	SM-2	FIREX	Launched without “Clear to Fire”	Procedural Compliance/Formality
2019-31 (LANT)	M-240	FIREX	Fired prior to “Batteries Release”	Procedural Compliance/Level of Knowledge/Formality
2017-15 (LANT)	5"	FIREX	Fired incorrect round type	Formality/Questioning Attitude

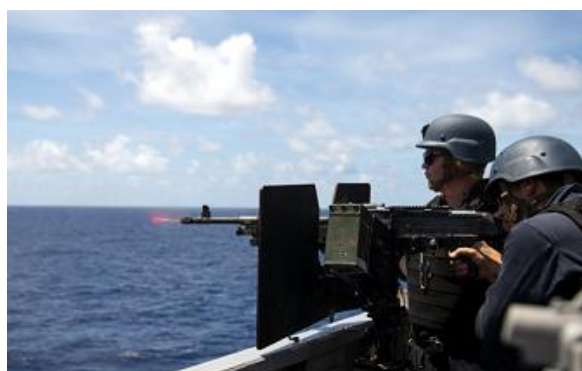
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There are two main trends present in these near-misses:

1. Weapons being fired **when** they were not intended to be. These near-misses ultimately come down to a lack of procedural compliance, because following the published steps would have prevented an incident from occurring. However, the reason some of these occurred was due to a lack of knowledge. Forceful backup and better communication between watchstanders can help prevent someone from inadvertently taking the wrong steps in their attempt to “fix” something.

2. Weapons being fired **where** they were not intended to be. Before weapons release, it is imperative to verify that the weapon is aimed at its intended target. In the cases on page one, the weapons had initially been aimed on target, but last-minute settings or commands changed the direction. Technology is only as good as the inputs received from human operators. You, as the operator, are responsible for where your ordnance impacts!

While not a specific trend, another issue was firing weapons before receiving final authorization. When in doubt as to whether or not you have clearance to fire, ask! If standardized calls are not making sense, stop the evolution and resolve any confusion by using plain language and verifying intent. Afterward, make sure action is taken to improve communications for future events.



Key Takeaways / Lessons Learned

None of these nine incidents occurred in the heat of battle. No one was taking fire or under dangerous external pressure to execute. Training is most beneficial when performed correctly and safely. Take a few extra seconds to ensure you are fully complying with published procedures. You could save your command hours of time spent completing near-miss paperwork, but more importantly, you could save someone's life (a fellow Sailor or Marine, or civilians down-range). Here are some additional tips to help keep you and others safe during any activity involving a ship's weapons.

1. **Qualifications.** Review your personnel's qualifications and their experience level before assigning them to positions in the kill chain.

2. **Risk Management.** Use the Individual Risk Management checklist (in the SURFPAC/SURFLANT Crew Endurance Instruction, 3120.2A) to identify areas of increased risk due to fatigue, materiel issues, or lack of experience.

3. **Time.** Consider the time required to “do it right,” and build in a buffer. If a Maintenance Requirement Card (MRC) lists 2.5 hours, and your team routinely completes it in 45 minutes, that should be a red flag. The goal is to reduce any perceived pressure on the crew to rush an event.

4. **Team Backup.** Emphasize the role of safety observers, and empower them to stop an evolution without hesitation if something is wrong.

5. **Training.** Train relentlessly - and realistically. Checklists are essential, but familiarity with the system and its operation will pay real dividends when the system is needed for self-defense or an actual engagement.

This product is posted on the NAVSAFECEN CAC-enabled website

<https://intelshare.intelink.gov/sites/nsc/Pages/default.aspx>

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