



NAVAL SAFETY COMMAND

SAFETY AWARENESS DISPATCH



SA 24-30

Live Fire and Maneuver Mishaps

Live-fire training is an essential part of preparing for combat. To instill confidence in their abilities and weapons systems, service members must know how to use them as they would in real-world events. Live fire comes with the obvious risk of injury to our personnel, which is why there are many layers of requirements and regulations to mitigate risk as much as possible. Despite these layers, mishaps like the ones we describe here continue to hurt, and sometimes kill, Marines and Sailors.



- **Target Misidentification.** Before a night fire team attack at an entry-level course, students received a “hip-pocket” class (*basically a quick briefing*) by an experienced student on how to use the PVS-31 night vision device (NVD), but they didn’t receive formal training as part of the course. Without the formal training, Marine 1 didn’t calibrate his NVD correctly and had degraded visibility on the range. The scheme of maneuver involved the fire-team buddy rushing to their objective, then upon receiving notional contact from the enemy, conducting a break-contact drill (*buddy rushing in the opposite direction while other team members provide suppression fire*). At one point, Marine 1 conducted a double bound (*a quick dash*) and unwittingly moved to the right, accidentally placing his covering position in the lane of another fire team member. Students and range staff were marked with chemical lights (chem-lights) on their backs, but as personnel turned to rush back toward the fire team as part of the drill, the chem-lights on their backs weren’t visible. During this maneuver, Marine 1 misidentified a team member as a silhouette target and fired at him, fatally shooting him in the chest. —*Instructors for this course expected students to have prior training with the NVDs, but the students were selected from different units and came with varying experience and proficiency levels. After the fact, other students also expressed difficulty seeing through foggy/scuffed eye protection. These factors set the stage for an inevitable target misidentification event. Night live-fire training intensifies the hazards already associated with a high-risk event. Leaders must make a concerted effort to identify and prevent this type of mishap.*

- **Weapons Malfunction Distraction.** During an integrated training exercise, a platoon was scheduled to conduct a day and night live fire and maneuver (LFAM). They rehearsed before the daytime event but elected to only conduct a “rehearsal of concepts” for the nighttime event due to perceived time constraints. However, some of the Marines’ locations were changed for the night attack, which caused some confusion. During execution, this confusion was exacerbated for one Marine when a weapons stoppage diverted his attention from the movement of other Marines. After conducting his immediate and remedial actions to clear the stoppage, he attempted to reengage targets. However, he mistook another Marine for a silhouette target, fatally shooting him in the neck. —*Units must have an appreciation for the significant increase in risk during a night LFAM versus a day LFAM. Even if the range and scheme of maneuver are the same, the nature of a night attack is different. You should complete a rehearsal for both, without exception.*

- **Complex Platoon Night Attack.** A unit deployed to a Marine Expeditionary Unit was conducting training in a foreign country. The unit planned for training to culminate with a complex platoon night attack involving multiple support-by-fire positions and a mechanical breach through concertina wire (c-wire). Once on site, the infantry company conducted four days of daytime and nighttime squad attacks, during which they determined the range could not support the intended platoon LFAM. They coordinated with the host nation to use a different range and the battalion landing team commander approved the change. The company commander had the platoon commanders complete planning and rehearse on the original range before moving to the alternate range to enforce the realism of not seeing the objective before the attack. The unit moved to the new range, conducted a leader’s reconnaissance, adjusted their plans accordingly, and began their live-fire evolution. The first platoon’s attack was halted because personnel had difficulty

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identifying targets due to minimal ambient light. The unit decided to mark the targets with chem lights. They also marked the assistant range safety officers (ARSOs) with red lens flashlights but didn't realize the confusion this could cause with the use of NVDs. The first platoon reset and re-executed their attack.

During the second platoon's execution, once at their assault position, the engineer team was called forward to breach a c-wire obstacle. The plan called for the engineers to move forward to a covered position with an infantry squad as security. Once the security squad provided suppression, the engineers were supposed to move forward and breach the obstacle. Instead, the engineers ran straight to the obstacle and began breaching while

the security element was still getting into place. The security element began suppressing fire just as an engineer began waving a blue chem light to signal "breach clear" and his accompanied ARSO faced up range with his red lens flashlight. Approximately 15 seconds after breaching, rounds started impacting around the two Marines. They took fire for approximately 30 seconds and the engineer was shot in the hip and wrist. The ARSO was also hit in the neck by a ricochet before they could effectively call for a cease-fire. —*There were a number of contributing factors involved in this incident. The primary causal factor was ineffective rehearsals, compounded by ineffective time-critical risk assessment about the change in marking procedures and ineffective communication. Rehearsals serve to both confirm our Marines' understanding of the plan and that the plan makes sense. The desire to implement realism is understandable and should be done to the maximum extent possible, but logic and a sense of risk management must prevail. While conducting rehearsals on "like terrain" is technically permissible, it should only be done by the most proficient units. After several months aboard a ship with limited ability to conduct live-fire training, this unit wasn't at that level of proficiency. The wise decision would have been to rehearse on the actual range and then rehearse again when a significant change was made to the marking procedures.*

Key Takeaways

Fortunately, these types of mishaps are rare, but don't be lulled into complacency. Statisticians in the industrial field argue a theory that for every fatality or significant mishap, there are 300 near misses or minor incidents. While this data may not translate precisely to combat arms communities, we know that investigations into each of these incidents identified a trend of unnecessary unit risk acceptance. This stat begs the question: How many other units show the same trends and are just getting lucky? Don't be the leader who makes the same mistakes. Consider the following guidance.

- 1. Know your unit's capabilities.** It can be easy to hold your unit in high esteem and thus overestimate its abilities. Make a realistic assessment of your personnel's experience since performing this level of task, cohesion, etc. It's okay to have shortfalls. Training is how we correct them. Recognizing them is how we train safely and effectively.
- 2. Communicate the plan.** Every unit level must thoroughly understand the plan. When changes happen, ensure they're disseminated to the most junior Marine. This communication applies to both the executing personnel and the range staff. In the majority of LFAM mishaps, the ARSOs (also known as position safety officers) were never given any brief specific to their safety roles and responsibilities. In many cases, they were assigned right before the live run began.
- 3. Rehearse! Rehearse! Rehearse!** Rehearsals are how you confirm capabilities and understanding of the plan. Don't gaff them off. Make them thorough and realistic. Per the DA PAM 385-63 (Range Safety), rehearsals "will replicate as closely as possible the conditions involved in the actual event." If there is a change to the range after the rehearsal, then do the rehearsal again. By doing that, you'll save a life and keep a trained warrior on the field.

And, like we always remind you, "Let's be careful out there."