



Naval Safety Center

LESSONS LEARNED



LL 21-20

HELICOPTER MIDAIR COLLISION

Note: This lessons learned product is derived solely from non-privileged, publicly available information and investigations.

Sailors and Marines accomplish the mission. The training process instills a duty and bias for action. That duty and bias must include taking action to intervene when a unit or crew is unprepared to execute a mission.

Training and readiness manuals, standard operating procedures, and other directives and orders establish standards for currency and readiness for Navy and Marine Corps units to accomplish the most challenging missions in demanding operating environments. The training process involves a “crawl, walk, run” progression. Currency can be measured by completing sequential training events within established timelines, but **proficiency** is a critical component that’s difficult to measure. Proficiency demands a brutally honest, real-time assessment of skill level to execute a specific mission. As you read the following narrative and context, we challenge you to ask yourself whether the crews of these aircraft were proficient in their assigned training missions that, ultimately, they did not accomplish.



NARRATIVE

During a night, low-light training mission off the coast of Hawaii, two Marine helicopters collided, resulting in the loss of 12 Marines and two aircraft. This training mission included: (1) a section leader check ride; (2) an advanced night systems instructor training event; and (3) low-light night vision device training flights. At the time of the collision, cloud layers obscured the moon and starlight, and the two aircraft were turning away from cultural lighting on the Hawaiian coast and out to a featureless open ocean. During this turn toward the open sea, the wingman’s rotor blades struck the lead helicopter. The most likely cause of the mid-air collision was a lack of pilot and aircrew proficiency in low-light formation flying.

ADDITIONAL CONTEXT

1. Due to numerous factors, including lack of parts and wear and tear from sustained combat operations in Iraq and Afghanistan, the squadron’s aircraft readiness levels were at historic lows.
2. Pilots and aircrew were flying less than the required flight hours per month to meet yearly flight hour goals to maintain proficiency.
3. Several months before this mid-air collision, this squadron failed a maintenance readiness inspection.
4. Maintenance personnel and aircrew were routinely working 12-hour shifts and weekends in an effort to bring aircraft readiness up to acceptable levels.
5. Due to the lack of available aircraft, pilot and aircrew flight hours remained well below the proficiency goal level.
6. Even with these additional maintenance working hours, this squadron could not achieve its readiness goals from the failed inspection, and just three days before this mishap, the squadron commanding officer (CO) was relieved.

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7. Flight operations and maintenance actions continued under the executive officer, who became acting CO. A new commanding officer assumed command the day of this mishap.

8. The aircraft commanders, night systems instructors, and night systems instructor crew chiefs flew a high-light initial training flight for co-pilots and aircrew immediately before the low-light section leader and night systems instructor training flight (the mishap flight).

Key Takeaways / Lessons Learned

1. Current does not equal proficient. According to the training and readiness matrix, these two flight crews were “current” to fly these training flights (they achieved currency with the training flight immediately beforehand), but were they proficient at flying these training events in low-light conditions? (especially formation flying, looking into open-ocean and featureless terrain)? Naval aviators (*particularly Marines*) tend to be hardwired to accomplish the mission. One of the hardest things for them to admit is that they might not be proficient at that specific time to accomplish the specific mission. It takes moral courage for us to admit when – in real-time – we are not proficient in executing a training or operational mission as it was designed. A culture of operational excellence demands we exhibit this type of brutally honest moral courage. A lack of proficiency does not mean a lack of professionalism. On the contrary, a professional dares to admit when they aren’t proficient and takes steps to regain proficiency.

2. Change poses risks. Mishaps are more likely to occur during changes in operational cycles: transitioning from deployment to home; ramping up from a maintenance phase to an increased training phase; etc. It is during those transition times that the “crawl” has to happen before the “walk” and “run.” An operational pause could have been the key to preventing this mishap. Failed inspections, the relief of the CO, and the arrival of a new CO days later should have been enough to hit pause – especially with the low currency and proficiency of the flight crews.

3. Training versus operational. Even if we are hardwired to accomplish the mission, we must remember that a training flight is just that: a training flight. Our willingness to accept unmitigated risk should be much lower than in a ‘real-world’ operational flight or in a combat environment. If the risks can’t be mitigated, the flight shouldn’t be scheduled or flown. This point is where risk management meets crew resource management. Have the assertiveness to make the call, and live to fly and fight another day.

And remember! Let’s be careful out there.

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