

# HAZARDS TO ROTARY WING AIRCRAFT/WAVE INCURSION



*It is only a matter of time before we kill another Sailor, as well as lose another aircraft!*



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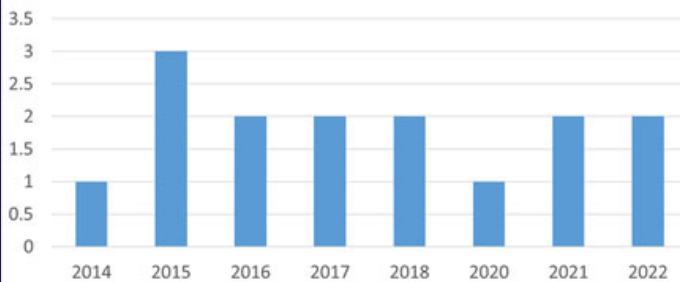
## USS WILLIAM P. LAWRENCE/HSC-6

In 2013, we tragically lost two aviators and a \$28 million aircraft.

- 12 MISHAPS/HAZREPS in 10 years prior
- Risk appreciation limited to aviation
- NATOPS inadequate to mitigate risks
- Red deck maneuvering risk not understood by Surface community
- Enterprise failed due to stove piping



Total # of Mishaps & NMs Related to DDG/H-60 Wave Incursion Since 2014



## BRIEF SUMMARY OF FOUR RECENT EVENTS

- 16 JUN 2020: HAZREP – MH-60R stabilator was struck by a wave following a DDG maneuver.
- 25 JUN 2021: HAZREP – DDG was conducting Deck Landing Qualifications (DLQs) and executed a turn while a helo was on deck with rotors engaged.
- 17 DEC 2021: Class C Mishap – MH-60R static spread on flight deck during DDG maneuvering in heavy seas.
- 14 APR 2022: HAZREP – During refueling, a wave struck MH-60R engaged rotors during DDG maneuvering; No damage or injuries.

## EFFORTS

Since 2016, NAVSEA, CNSP, and NAVAIR via the Wave Incursion Working Group have developed potential mitigations.

- DDG-51 model testing at NSWC Carderock wave pool
- MORIAH wind system Polar Plot integration (HQ funded activities only)
- U/W testing on USS STERETT (DDG 104)
- NAVSEA updated ship handling decision aides
- NAVSAFECOM Safety Assurance Letters dtd 23 APR 2018 and 27 OCT 2022
- Operator feedback and guidance update (funding ends FY23)
- Wave sensing (not funded)
- Polar plot training videos (not funded)
- Seeking to test on another DDG
- CNSF P4 message dtd 22 FEB 2023



*The rate of wave incursion events reveal that Fleet mitigations are not enduring or effective.*

## ACTIONS AND TAKEAWAYS

**A Class A MISHAP caused by wave incursion is imminent.** 2-3 DDG incidents per year. Life expectancy for this platform is another 50 years. The unmitigated risk will continue to grow.

**Effective risk mitigation measures are needed now.**