

A study on

Aging of Underwater Munitions



Funded by the U.S. Department of Defense's Strategic Environmental Research and Development Program (SERDP), this joint effort by the Center for International Stabilization and Recovery (CISR) at James Madison University and Fenix Insight seeks to observe and characterize the changes that munitions experience as a result of aging in an underwater environment.

Little formal knowledge exists on the structural and functional changes to munitions from prolonged underwater exposure, as well as details on what factors lead to those effects.

By analyzing research and news reports of recovered ordnance and their component materials, as well as integrating those observations with previous age-related findings involving land-based ordnance, the research team set out to establish a framework of subsequent implications for the Department of Defense's Munitions Response efforts.



The study also has wider significance for underwater clearance operations world-wide, since underwater contamination exists in many oceans, lakes, rivers, and other waterways around the globe. Scan the QR code or go to the link below to learn more about this study and other reports on aging of munitions.



<https://www.jmu.edu/cisr/programs/aging.shtml>





Call to Action

Because so little information has been gathered on the state of underwater munitions and any physical or chemical change they may have endured, **we encourage the community to engage in more systematic data collection when encountering underwater ordnance**, so long as it is safe to do so. Capturing images and observations about the environment and the munitions themselves can greatly increase the body of knowledge surrounding this subject and enhance our understanding of issues relating to prioritization, identification, detection, disposal, safety, and cost efficiency in underwater clearance operations. Sharing reports on remediation efforts in underwater environments as well as information on accidents or incidents involving underwater munitions is also welcome.



JAMES MADISON UNIVERSITY



Center for International
Stabilizational and Recovery

Please contact the research team at cisr@jmu.edu if you have such information to share.



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