

CONSIDERATIONS FOR ADVANCED GEOPHYSICAL CLASSIFICATION INTEGRATION ON GUAM

Greg Abrams, Weston Solutions; Ryan Steigerwalt, Weston Solutions ; Tom King, Weston Solution

The American territory of Guam was invaded by the Japanese military on December 8, 1941. The occupation ended in 1944 when the United States liberated the island from the Japanese. Heavy military activity during this period and other military operations distributed a variety of American and Japanese war time remnants, including munitions and explosives of concern (MEC). MEC are a safety hazard and may be an endangerment to construction personnel and the local population if encountered. As a requirement of the Military Construction (MILCON) program, a removal action is required in advance of construction for sites with a probability of encountering MEC. To provide insight and consideration for future MILCON efforts, Weston Solutions, Inc. integrated advanced geophysical classification (AGC) with an ongoing MEC removal action project being performed at Andersen Air Force Base. This Environmental Security Technology Certification Program demonstration yielded positive results achieving correct classification of all targets of interest and retrospectively reducing the number of clutter or non-munitions related material that would require intrusive investigation by 81%. While the AGC results show a notable reduction in costly intrusive work is possible, our experience provides insight to the many extrinsic complications which need to be considered for future work on Guam when applying AGC. Out of the 25 survey days onsite with our geophysics team and UXO Technician escort, upwards of 10 combined field days were lost due to weather implications with the technology. Significant coordination and cost was required to mobilize the TEMTADS 2x2 and ancillary equipment not readily available on island. Trouble shooting, status reporting and the shipment of replacement parts contended with a 15 hr. time zone difference. Reflecting upon the unique challenges encountered during this demonstration, we intend to provide information to improve and enhance the implementation of AGC on Guam.