

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Safety Advisory 02-1 - Geophysical Instrument

1. Reference U.S. Army Engineering and Support Center, Huntsville (USAESCH) OE-S Interim Safety Alert - Geophysical Instruments, dated 20 January 1999.
2. This Safety Advisory applies to the U.S. Army Engineering and Support Center, Huntsville (USAESCH) personnel and its contractors working on ordnance and explosive (OE) sites. This advisory is to reiterate the above listed reference. The below safety recommendations are an excerpt from this reference.
3. The electronic components of a magnetometer, conductivity meter, and ground penetrating radars (GPR) generate magnetic and/or electrical fields. The referenced report indicates that magnetic and/or electrical fields generated by these instruments could function electrically initiated fuzes.
4. The following precautions and safety recommendations are applicable on all USAESCH OE projects.
 - a. Never place an operating geophysical instrument, its electronics, data processor, or battery pack on the ground in an area suspected of containing unexploded ordnance (UXO) with electrical fuzing.
 - b. Do not use conductivity meters around trash piles or trenches that may contain UXO with electrical fuzing.
 - c. Ground Penetrating Radar (GPR) units shall not be used on site suspected of containing UXO with electrical fuzing.
 - d. Contractors shall ensure future work plans, Site Safety and Health Plans (SSHP) and active hazard analysis incorporates these precautions along with how the instruments will be used on OE sites.

CEHNC-OE-S (200-1c)

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e. Safety recommendations:

TYPE	SAFETY RECOMMENDATIONS
TDEM	Safe when carted 0.42 meter height (or carried at 1 meter height), <u>except at trash piles</u> . DO NOT OPERATE AT HEIGHTS LESS THAN 0.4 METERS!
FDEM (Conductivity)	Safe when operated at 1-meter height, <u>except at trash piles</u> . DO NOT OPERATE AT HEIGHTS LESS THAN 0.3 METERS!
Cesium Vapor Magnetometer	Safe when operated at 1-meter height. DO NOT LET OPERATING INSTRUMENT CONTACT GROUND.*
Total Field Magnetometer	Safe when operated at 1-meter height. DO NOT LET OPERATING INSTRUMENT CONTACT GROUND.*
Flux Gate Gradiometer	Safe when operated at 1-meter height. DO NOT LET OPERATING INSTRUMENT CONTACT GROUND.*
GPR (Pulse, TD)	DO NOT USE FOR UXO ACTIVITIES! This is a ground contact instrument and could set off low activation energy fuzes.
FEDM	Safe when operated at 1-meter height, <u>except at trash piles</u> . DO NOT OPERATE AT HEIGHTS LESS THAN 0.5 METERS!

*NOTE: Refers to electronics/battery package, not detector head.

CEHNC-OE-S (200-1c)

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5. This Safety Advisory is intended to serve as a reminder of the Sensitivity of Pre-1960 Fuzes to instruments electromagnetic fields.

6. Comments or questions about this Safety Advisory please call 256-895-1589.

FOR THE DIRECTOR OF ORDNANCE
AND EXPLOSIVES DIRECTORATE:

Chief, OE Safety Group for
Ordnance and Explosives Directorate

DISTRIBUTION:

Commander, U.S. Army Corps of Engineers, ATTN: CESO-E
441 G Street, SW, Washington, DC 20314-1000

Commander, U.S. Army Engineer District, Sacramento, ATTN:
CESPK-CO-CA Monterey Project Office, Presidio of Monterey,
CA 93944-5000

Commander, U.S. Army Engineer District, St. Louis, ATTN:
CEMVS-ED-P 1222 Spruce Street, St. Louis, MO 73103-2833

Commander, U.S. Army Engineer District, Rock Island, ATTN:
CEMVR-ED-DO Clock Tower Building, P.O. Box 2004, Rock Island,
IL 61204-2004

Commander, U.S. Army Engineer District, Honolulu, ATTN:
CEPOH-EC-E Building 252, Fort Shafter, HI 96858-5440

Commander, U.S. Army Engineer District, Baltimore, ATTN:
CENAB-EN-HI Room 10700C, P.O. Box 1715, Baltimore, MD
21203-1715

Commander, U.S. Army Engineer District, Los Angeles, San Diego
Project Office, 16885 West Bernardo Drive, Suite 300B, San
Diego, CA 92127

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CEHNC-OE-S

SUBJECT: Safety Advisory 02-1 - Geophysical Instrument

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215 N. 17th Street, Omaha, NE 68102-4978

Commander, U.S. Army Engineer District, Fort Worth, ATTN:
CESWF-SO P.O. Box 17300, Fort Worth, TX 76102-0300

Commander, U.S. Army Engineer District, New England, ATTN:
CENAE-CO-EA-SC, Impact Area Ground Water Study, Building 2816,
Room 228, Camp Edwards, MA 02542

Commander, U.S. Army Engineer District, Louisville, ATTN:
CERLR-ED-E-B, 600 Martin Luther King Place, Louisville, KY
40201-0059

CF:

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