



ENVIRONMENTAL TOOLKIT FOR EXPEDITIONARY OPERATIONS (ETEO)

NATIONAL DEFENSE CENTER FOR ENERGY AND ENVIRONMENT

PROJECT OVERVIEW

The ETEO allows expeditionary teams to rapidly identify chemical and biological contaminants in soil and water, reducing the time and effort required to complete environmental reporting to site and close basecamps from weeks to hours.

Currently, basecamp environmental reporting tasks are completed using visual inspections with no data. The ETEO streamlines existing Environmental Baseline Survey (EBS) processes required to site and close bases, as well as enables U.S. Army Corps of Engineers (USACE) Environmental Support Teams to use a suite of sensors to rapidly assess environmental contamination under most environmental settings.

BENEFITS

The development of this technology enables Engineer Soldiers and USACE Environmental Support Teams to perform environmental screening tasks with a smaller logistical footprint while decreasing costs associated with laboratory analysis.

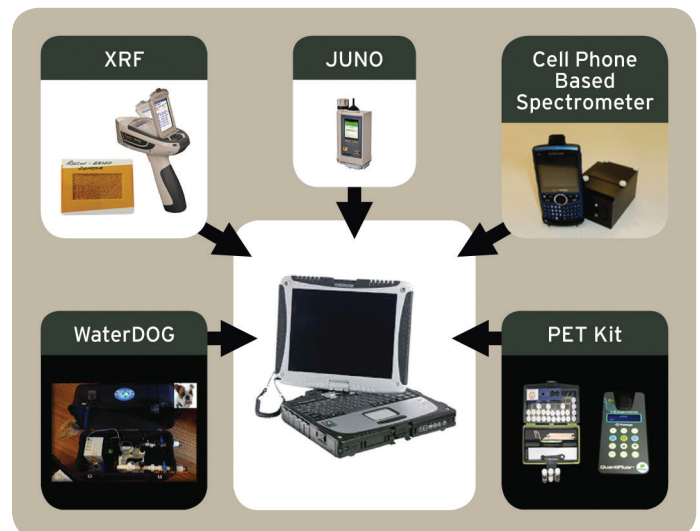
During base operations, the technology can be used to monitor environmental conditions or screen new materials brought on site. During base closure and transition, the technology will provide a means to recognize potential environmental discrepancies from the original conditions, and therefore focus any potential remediation obligations.

PATH FORWARD

The ETEO was developed at the US Army Engineer Research and Development Center (ERDC) over four years through funding from the Assistant Secretary of the Army (Acquisition, Logistics and Technology). In this development stage, several sensors capable of detecting environmental contamination were developed or modified. These sensors detect and quantify heavy metals and petroleum constituents in soil and water. Additionally, the ETEO software was developed to allow for

data from sensors to be used in a streamlined EBS reporting process.

In this National Defense Center for Energy & Environment project, ERDC will demonstrate the ability of existing ETEO software to accept data from a new commercially available sensor and transfer that data into an EBS form. The ETEO software application and interface is currently part of the Instrument Set, Reconnaissance and Surveying (ENFIRE) Program of Record, managed by Product Director (Combat Terrain Information Systems); Program Executive Office (Intelligence, Electronic Warfare, and Sensors).



The ETEO will enable rapid environmental data collection from several sensors that can then be automatically aggregated by software for environmental reporting.

FOR FURTHER INFORMATION:

NATIONAL DEFENSE CENTER FOR ENERGY AND ENVIRONMENT (NDCEE): <http://ndcee.army.mil/>

U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER: <http://www.erd.c.usace.army.mil/>