



Environmental Sampling and the Periodic Occupational and Environmental Monitoring Summary

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Agenda

- Periodic Occupational and Environmental Monitoring Summary (POEMS)
 - What is a POEMS?
 - POEMS Development
- Occupational and Environmental Health (OEH) Site Surveillance
 - Doctrine, Guidance
 - OEH Samples
 - Sample planning and execution



Periodic Occupational & Environmental Monitoring Summary (POEMS)

- Required by DoD Instruction 6490.03
- Combatant Commanders identify and prioritize POEMS for locations based on site assessments, hazard assessments, or potential health risks
- POEMS:
 - Population-based summary of health risks and medical implications
 - Written by Components using an approved guidance template
 - ✓ Table 1: Summary for medical providers
 - ✓ Table 2: Summary of population-based health risks
 - ✓ Detailed risk assessments.
 - Published in the Defense Occupational and Environmental Health Readiness System (DOEHRS) and the public Defense Centers for Public Health – Aberdeen website; available via the Individual Longitudinal Exposure Record (ILER)



POEMS Contents

- Ambient Air
- Soil
- Water (drinking and non-drinking)
- Military Unique
- Endemic Disease
- Venomous Animals
- Thermal Stress
- Noise
- Unique Concerns/Incidents



POEMS Development

- Review ALL supporting information
 - OEH Site Assessment, Environmental Baseline Survey, etc.
 - Exposure Pathways
 - Base Camp Assessments
- Assess and align to the guidance/template
- Data Queries per Exposure Pathway
 - DOEHRS
 - Non-DOEHRS sources



POEMS Production

- Risk assessment professionals
 - Perform quantitative, semi-quantitative, or qualitative risk assessments per military risk assessment methodology
 - Acute and chronic population-based assessments
 - Generate risk summary table
- Medical provider
 - Generates summary of medical implications for use by providers
- Formal content review, approval, and clearance process for publication



Public POEMS Website

The screenshot shows a web browser displaying the Public POEMS website. The URL is <https://ph.health.mil/topics/envirohealth/hrasm/Pages/POEMS.aspx>. The page features a navigation menu with links for About Us, Contact Us, Jobs, Freedom of Information Act, Site Map, Health.mil, Tricare, and DCPH-A Intranet. The main content area is titled "Periodic Occupational and Environmental Monitoring Summary (POEMS)" and includes a search bar, a navigation menu, and a list of articles. The page is updated as of June 15, 2023.

Navigation Menu: About Us | Contact Us | Jobs | Freedom of Information Act | Site Map | Health.mil | Tricare | DCPH-A Intranet

Search Bar: Search this site

Main Content:

HEALTH RISK ASSESSMENT, SURVEILLANCE & MANAGEMENT

Periodic Occupational and Environmental Monitoring Summary (POEMS)

Last Updated: June 15, 2023

[DCPH-A Home](#) / [Topics](#) / [Deployment & Environmental Health](#) / [Health Risk Assessment, Surveillance & Management](#) / Periodic Occupational and Environmental Monitoring Summary (POEMS)

A primary DoD goal has been to ensure that service members (Active Duty, NG and RC), and their providers (military, VA, as well as private sector) have access to the most current and applicable information about such exposures - especially when addressing post-deployment health concerns. These documents are not developed for inclusion in the medical records of individual persons because they describe overall general population exposure estimates and do not describe any specific person's unique exposures. However, if it appears specifically relevant to an individual's future complaint/health condition, a provider may use information from the documents when evaluating or treating an individual's health condition.

THE ATTACHED PERIODIC OCCUPATIONAL AND ENVIRONMENTAL MONITORING SUMMARIES HAVE BEEN APPROVED FOR PUBLIC RELEASE AND CLEARANCE FOR OPEN PUBLICATION AS RECOMMENDED UNDER PROVISIONS OF DODD 5230.09.

Filter by Country: -- Select a Country --

Search:

TITLE	COUNTRY	LOCATION	START DATE	END DATE	ASSOCIATED LOCATIONS
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Other Articles:

- [An Introduction to Environmental Health Risk Assessment](#)
This page briefly describes the topic and includes a link to the APHC work unit that implements this methodology to address the challenges posed by environmental health hazards.
- [Central List of HRA Guidance and Publications](#)
This page provides guidance and publications of general interest.
- [Defense Occupational and Environmental Health Readiness System \(DOEHRs\) Resources](#)
Resource materials for users with DOEHRs accounts.

<https://ph.health.mil/topics/envirohealth/hrasm/Pages/POEMS.aspx>

Improving Health and Building Readiness. Anytime, Anywhere — Always



Environmental Monitoring Doctrine

U.S. NAVY NTRP 4-02.9
 U.S. AIR FORCE AFTTP 3-2.82_IP
 U.S. ARMY ATP 4-02.82

OCCUPATIONAL AND ENVIRONMENTAL HEALTH SITE ASSESSMENT

EDITION APRIL 2012

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 1528 PIERSEY STREET BLDG O-27
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1 APR 2012



U.S. NAVY NTRP 4-02.9M
 U.S. AIR FORCE AFTTP 3-2.82_IP
 U.S. ARMY ATP 4-02.82

OCCUPATIONAL AND ENVIRONMENTAL HEALTH SITE SURVEILLANCE AT DEPLOYMENT LOCATIONS

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1 JAN 2023



Primary Components of Site Surveillance

1. Preliminary Hazard Assessment
2. OEH Site Assessment (OEHS) Survey
3. OEHSS Status Briefings
4. On-going Site Exposure Monitoring
5. Defense Occupational and Environmental Health Readiness System – Industrial Hygiene (DOEHRS-IH, or simply DOEHRS)
6. POEMS
7. ILER



Foundations of Site Surveillance

1. Preliminary Hazard Assessment

- a) Environmental Baseline Survey and Environmental Conditions Reports
- b) Entomological and Infectious Disease Risk Assessments
- c) Other threat assessments (e.g., water)
- d) Previous OEH assessments

2. OEHSA Survey

- a) Exposure Pathways: Identify and document potential exposures to environmental threats and hazards
- b) Communicate findings, develop mitigation options, prioritize surveillance/sampling



Exposure Pathways (EP)

Source of Hazard → Exposure Point/Medium/Route → Population at possible risk

1. Organized, standard framework in DOEHRS
2. Details:
 - a) Sources
 - b) Hazards
 - c) Existing controls
 - d) Background information
 - e) Duration and frequency of exposure
 - f) Priority level for action(s) including sample collection
3. Assessment: developed and documented based on all available EP information and sampling data (when available)



Sample Plans – What samples, when, how, why?

- Developed in coordination with reach-back support
- Based on question(s) you are trying to answer
 - Long-term vs. acute exposure concerns
- Site-specific
- Created for each exposure pathway, aligned to priority level
- Should address sampling strategies, sample management, laboratory analysis, logistics, data quality objectives, and quality assurance
- Two Phases
 - Screening
 - Further characterization
- Issued sampling tools vs supplemental sampling support



Air Sample Collection, Afghanistan



Improving Health and Building Readiness. Anytime, Anywhere — Always



Sample Collection Kits



Treated Water Kit



Untreated Water Kit



Soil Kit

Examples: Field Monitors and Sample Collection



Radiation Monitors

Sound Level Meter

Soil Sampling

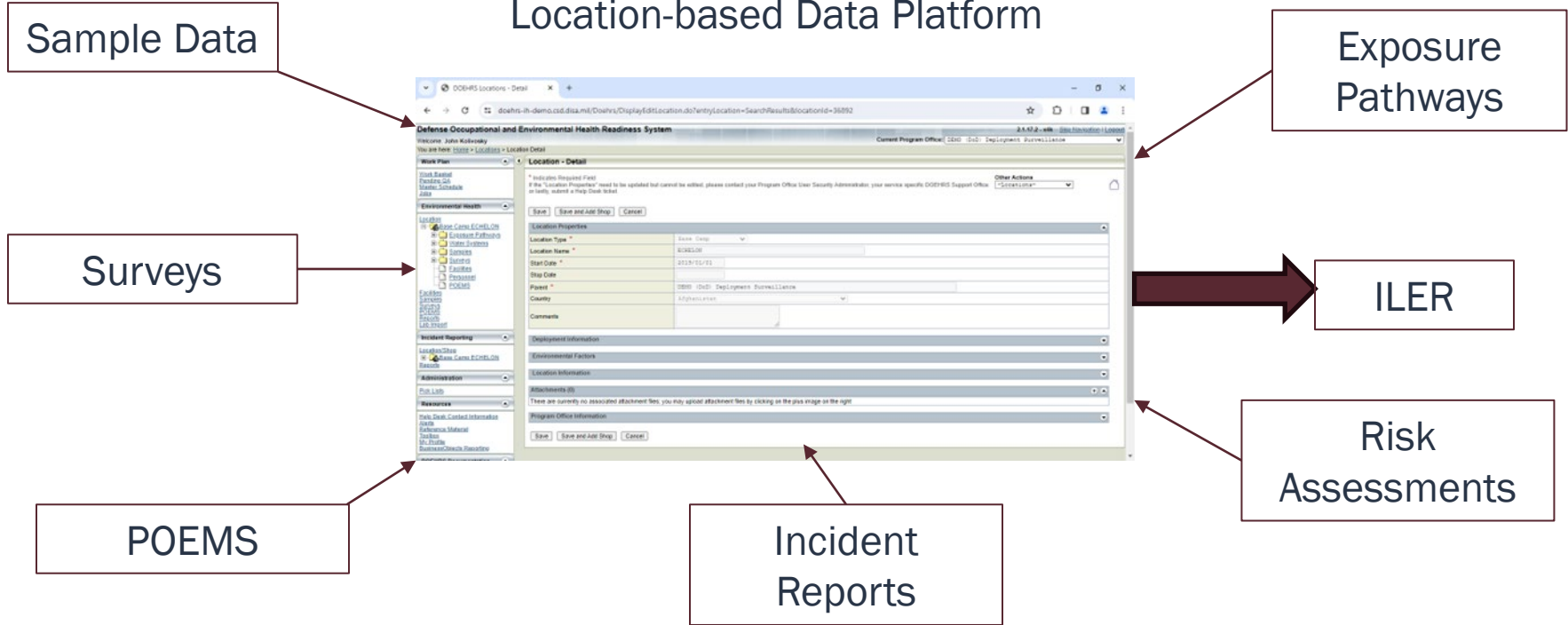
Water Sampling

Water Samples



DOEHRS-IH

Location-based Data Platform



Deployment Environmental Sampling Challenges

- Shipping
 - Customs issues
 - FedEx® and DHL are not available near some deployment locations.
 - U.S. Postal Service shipments can take a long time and are difficult to track overseas
 - Local shipping offices tampering with shipments or imposing local “restrictions/requirements.”
- Logistical Challenges
 - Limited space and weight allowances in vehicles and aircraft
 - Difficulty getting out to some locations due to route issues or nearby conflict
 - Resupply of organic supplies takes a long time
- Limited equipment/media availability
- Competing Mission Priorities



Deployment-related Content in DOEHRS

- Ambient Air Samples (combined): 38,000
- Water Samples (combined): 49,000
- Soil Samples: 6,600
- OEHSAs: 1,300
- Exposure Pathways: 7,000



Summary and Questions

- Deliberate process for identifying hazards and potential for exposures during deployment
- Samples targeted to support assessment of exposure scenarios
- Documentation of samples, assessments, etc. in DOEHRS
- POEMS provide population-based risk assessments over extended time periods
- OEH information associated through DOEHRS to ILER
- Q&A

