Developing An Environmental Quality (EQ) Test Process To Support Army Installations

15 May 2006

EQ Test Operating Procedure

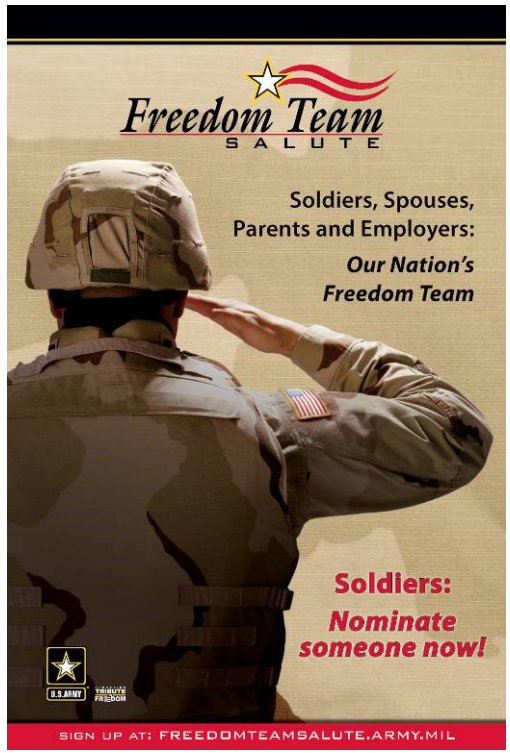
Purpose

- Initiative To Support Base Operations, Range Operations, And Families
- Identify Environmental Quality Data Needs
- Develop A Test Operating Process For Collecting EQ Data

EQ Test Operating Procedure

Why gather data?

- EQ Information On New Systems
- Provide Adequate Analysis Of Potential EQ Impacts
- Program Resources To Minimize Those Impacts
- Enhance Warfighter Readiness
- Quality Of Life



Where is EQ Data Needed?

Integrated Training Area Management

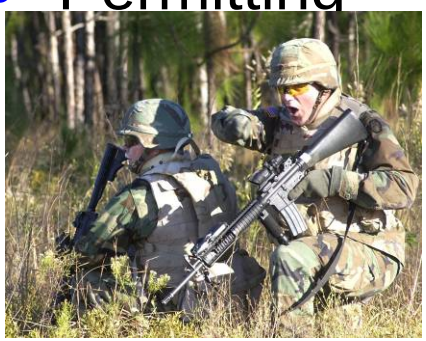
- Army Training and Testing Area Carrying Capacity (ATTACC) Model
- Estimating Training Land Carrying Capacity By Relating
  - Training load,
  - Land condition,
  - Land rehabilitation and,
  - Maintenance practices.

- ATTACC Can Be Used At Headquarters Department of the Army Level And At The Installation Level.

Where is EQ Data Needed?

Base Operations Planning

- EQ Data Supports:
  - EQ Management Planning
  - National Environmental Policy Administration (NEPA) Analysis
  - Permitting



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Who benefits from the data

Army Installations

- Identify site specific potential impacts of weapon systems
- Data supports preparation of accurate & timely NEPA and environmental reporting documentation

Program Manager / Program Executive Offices (PM/PEO Offices)

- Identify systemic environmental issues with their systems
- Crystallize environmental quality life cycle cost estimates
- Informed risk based environmental decisions based on defensible data

Material Developers

- Assist Science &Technology (S&T) community in material selection during basic research and weapon system development

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Approach

- Most opportune time to gather EQ data points was during Development Testing (D&T)
  - Major subsystems on the weapon system are being integrated and tested together
  - Potential to have impact on material selection or influence acquisition decision making
  - Multiple types of test are ongoing and environmental quality testing can be leveraged to reduce costs
- Many of the required data points are being gathered, but not reported, adequately evaluated, or archived

Approach

- Developed an organized list of EQ considerations
- Retained weapon system specific EQ considerations focusing on data needs of the NEPA process
- Used standard categories of weapons systems and commodities based on Test Operations Procedures (TOP)
- Cross-walked the EQ considerations with the commodity categories to form a Matrix

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Approach

- Decided to use the Developmental Test Command's Test Operations Procedures (TOP) process to develop a single guidance document call the Environmental Quality TOP (EQTOP)
- To prove that the EQTOP can be used developing Detailed Test Plans to show how the EQTOP can be used as guidance to gather weapon system specific data

Approach

Data Elements:

- Air
- Noise
- Wastewater
- Hazardous Materials/Waste
- Solid Waste
- Ground disturbance (Soil impacts)
- Wildlife (Habitat)
- Water Resources
- Storm water

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Matrix

- Across the top are the commodity categories
- Down the side are the environmental considerations
- Xs signify which environmental considerations are most likely to require observation or data collection for each commodity category or subcategory
- Meant to serve as a quick reference tool and not comprehensive guidance
- Matrix is in draft final

EQ TOP

- EQ TOP provides the guidance for collecting environmental effects data from Army weapons systems and materiel during the DT process
- Intent is to be used in combination with existing test-specific TOP's
- Section 5.2 describes the appropriate data observations, measurements, and sampling & analysis requirements
- Appendix B contains data measurement, sampling, and analytical methodologies
- Body of EQTOP is draft final
- Methodologies are draft awaiting comments

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Detailed Test Plan (DTP)

- Select three weapon systems detail test plans and modify them to incorporate Environmental Quality Subtests into the DTP
- Applicable measurement or sampling & analysis protocols will be included in the DTP
- Looking to use three unique weapon systems
- Working to get permission to utilize existing DTP
- Selecting weapon systems (M88 Recovery)

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Issues Identified

- Who is going to pay for the environmental effects testing of systems/commodities?
- Who is going to own the end data?
- Who is going to provide competent data assessment and evaluation?
- How is the data to be distributed?
- Who is the true proponent of environmental considerations of weapon systems?
- How is the best way to coordinate program?