Transforming the Navy Environmental Data Management Program

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Background

- NAVFAC manages environmental remediation projects
- Increasing number and types of contracts
- Annual budget of $200-$500 million
- Data management becoming more complex
- Problems with “missing” data
The Past...

- IR data stored in numerous locations
- Variable and/or incompatible data formats
- Costly to insure data integrity
- Difficult to access data

How to meet the challenges of modern business?
The Vision…

Develop standards, design and implement a system to:

- Maintain data integrity
- Allow ready access to and sharing of data
- Facilitate effective data analysis
- Enable better, faster decision-making

More Intelligent Data = Better Decisions
NAVFAC Adopted the Spatial Data Standards (SDS)

- National Standard developed by USACE CADD/GIS Technology Center
  - NCITS 353 - affiliate of ANSI
- Executive Order 12906
- NAVFAC Interim Policy Guidance

*National Standard for Spatial Data*
SDS Background

- Nonproprietary data standard
- Expanded/Updated annually
- Designed for use with GIS and RDBMS
- Used throughout DoD

Enables effective data management & sharing
Step One: Design an SDS-Compliant Navy Environmental IR Database

- Analytical testing, location, field measurement, data validation, toxicity, EPA regulations, etc.
- Eventually: Real-time data uploads from handheld instruments in the field

Designed with the future in mind
Began with a Prototype…

- Learned SDS ‘ways’ and objects
- Mapped historical data to SDS
- Conducted internal & external reviews
- Coordinated with CADD/GIS Tech Center
- Designed and implemented SDS database at a regional level

The concepts were tested and proven
...And Expanded to a National System

- Incorporated required elements for all NAVFAC regions
- Built in flexibility to accommodate variations in business practices
- Used our common environmental/IR "language"

*Navy Installation Restoration Information Solution*
Step Two: Develop and Implement Internet Tools

• Assure 24/7 data access and management
• Focus on spatial implementation (GIS-enabled)
• Leverage readily-available, off-the-shelf products
• Develop and distribute tools throughout NAVFAC

Built-In Data Dependency
Internet GIS Tools are the Hub

- Create a user-friendly interface (no need for intensive training)
- Build on skills and knowledge that users already possess
- Provide spatial data to users via internet browser

“Visualize your data”
Step Three: Provide Internet Interface to Data Management

- View on-line documentation and Division-specific instructions
- Submit proposed updates or additions to the database
- Administer and track database changes
- Access NAVFAC Electronic Data Deliverable (NEDD) specifications

*The next deployment phase*
The EDD format specifies the interface for the National Environmental Data and Report System (NEDDS). This system allows viewing of the data and metadata as new records are added.

### ALT-DAT-D

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The Brave New World

- Data administered by the Navy
- Contractors concentrate on higher-value tasks
- Data access is improved – Real Time
- Decision-making is expedited
- Data management costs significantly reduced

Modernizing the Navy’s business practices
Transforming the Navy Environmental Data Management Program

Questions?