Navy Emergency Management Addressing Project (NEMAP)

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Agenda

• Project Drivers
• NEMAP Overview
• Project Outcomes
• Going Forward
NEMAP

• Brief History
  • Funded and started in June 2013
  • “Pilot addressing projects” at NASJAX and NAS Key West prior to funding
  • 24 months estimated time to complete all CONUS bases
  • Completed initial addressing for all CONUS bases in April 2015

• NEMAP is a component of NERMS – Navy Emergency Response Management System (CONUS) and CERS Consolidated Emergency Response System (OCONUS) – “Navy 911”

• Parallel Project to 911-RMS – 911 Routing and Management Service – (Navy ESI Net) “Routing 911 calls on Navy installations” 911-RMS is also component of NERMS
Project Driver: Fort Hood Findings

Fort Hood Lessons Learned  Finding 4.2: “Failure to implement {Enhanced 911} policy will deny the military community the same level of emergency response as those communities off base.”
CNIC N37 HPD EMERGENCY MANAGEMENT (EM) ADVISORY

Date: 4 March 2013

Subject: Navy Emergency Management Addressing Project - NEMAP

b. Standard addresses are the most commonly used way to communicate the location of an emergency. The lack of 911 addressing hinders the RDC's from utilizing Computer Aided Dispatch to its full capability.

c. Fort Hood Lessons Learned:
   a. Finding 4.2: “Failure to implement {Enhanced 911} policy will deny the military community the same level of emergency response as those communities off base.”

In order to respond in a timely manner addresses are the most commonly used way to communicate the location of an emergency. Fire and police agencies respond to emergencies that are reported to the 911 call centers known as Public Safety Answering Points (PSAPs). The PSAPs across the nation use many different ways of locating people in distress. Address points allow them to pinpoint the locations of structures so even at night, in a dense fog, or snow which may limit visibility you can get to the correct location right away.
utilizing CAD and GIS to provide more efficient emergency dispatch services. The lack of 911/E-911 compliant Navy addressing adversely affects the ability for CAD and GIS to link emergency call locations to telephone numbers in a timely and accurate manner.

Most civilian agencies at local, regional and state levels have established Geographic Information Systems (GIS) based 911 addressing capability. Navy Installations do not currently have standard addressing capability and do not utilize the traditional addressing system.

complete Navy-wide 911/E-911 compliant Base Addressing. When a new address is required on a Navy Installation the designated NEMAP Team (SPAWAR 41170, NAVFAC ATPF) will coordinate between base personnel and the Local Government addressing authorities to obtain and integrate addresses within the scheme for each command.

911/E-911 compliant Navy addressing adversely affects the ability for CAD and GIS to link emergency call locations to telephone numbers in a timely and accurate manner.

INFADS. Moving forward, a NEMAP Configuration Management Plan will provide oversight and accountability for all Navy and 911/E-911 related Addressing efforts. This is being coordinated with the NAVFAC Asset Management Office.

3. GUIDANCE:
NERMS and E-NERMS

- **NERMS - Navy Emergency Response Management System**
  - Regional Dispatch Centers (RDC)
  - **E-NERMS** - “Enterprise Navy Emergency Response Management System” is currently deploying

- **CERS – Consolidated Emergency Response Management System**
  - OCONUS

- **911-RMS – Routing And Management Service**
  - Route PSTN Navy 911 Calls on E911/NG911-like technology
  - Receive Transferred Wireless calls for local PSAPs
  - Navy-911 ANI/ALI

- **NEMAP – Navy Emergency Management Addressing Project**
  - Specialized SME’s for Development and Coordination of GIS, 911 Addressing/ALI, MSAG
  - Enables true E911
What is NEMAP?

- **NEMAP = Navy Emergency Management Addressing Project**

**Current State**
- Based on building number
- No address coordination with external emergency responders

**What is Base Street Addressing?**
- Provides e911 compliant Navy addresses similar to outside agencies (ATT, Sprint, etc..)
- Multi-agency approach – GRC, PWD, Local government, among others
- Address database hosted by outside agencies
What is NEMAP?

- Street Centerlines with Ranges
  - Addresses can be geocoded

- Address Points
  - Centroid of building footprint
  - Buildings and Structures

- Base Configuration Plan
  - Implementation
  - Ownership
  - Sustainment
From a Project to a Process

- Navy Business Lines
- Navy Emergency Response
- Local and State Government Emergency Response
- Non-Government and Industry Partners

E-NERMS CERS
From a Project to a Process

Navy perspective

**Navy-BCO**
Base Communications Officer
Telephony
MAC – Move, Add, Change
ANI

**Navy Emergency Management**
Fire and Security
RDC - Regional Dispatch Center
Public Safety Answering Points, Mutual Aide, Addressing (GIS) verification, and MSAG validation
ROC - Regional Operations Center
EOC - Emergency Operations Center
Mutual Aide

**NAVFAC**
Asset Management
iNFADS
Real Property Officer
GeoReadiness Center
Public Works
MILCON
1354
New Data
NAVSEA
NAVAIR
PPV

**E-NERMS**
ALARMS
CAD - Computer Aided Dispatch
GIS - Geographic Information Systems
ELMR

**911-RMS**

**NENA**

**FGDC**

**USPS**
From a Project to a Process
Local Government perspective

E-NERMS

ALARMS CAD - Computer Aided Dispatch
GIS - Geographic Information Systems

ELMR

911-RMS

NEMAP

ANI

ANI/ALI

ALI

Local/Regional/State
911 Telephony
AT&T, Verizon, Century
Link, Sprint, Comcast etc.
ANI

Local, State EM
Fire and Security, Medical
PSAP – Public Safety Answering Points
Mutual Aide

Local/State
Addressing, GIS,
MSAG validation
ALI Providers
Privatized Housing
Providers

NENA
FGDC
USPS
From a Project to a Process

NAVY
Base Communications Officer (BCO), GRC, AM/iNFADS, Public Works Dept, PPV

RDC
PSAP 911-RMS, CAD, ALARMS (LAMAS RAMAS), NEMAP (GIS, MSAG), 911-ALI

Local /State Government
Local GIS
Public Safety
PSAP Addressing MSAG

Non Government Groups
911 Telephony, MSAG, (AT&T, Verizon, Intrado, etc.)

E-NERMS CERS
Project, Outcomes, and Implications
The NEMAP Team

- Navy Sponsors
- Project Leads (Prime and Sub)
- Technical Lead
- Data Manager
- System Architect
- Solutions Engineer
- Support Analyst
- Addressing/Geospatial Analysts
Collaboration Between Government Entities
Navy EM, Dispatch, Ops, SPAWAR, NAVFAC, ATFP, Supply...Federal Fire...
USPS...Local City/County/State EM, Planning, 911...Commercial PPV
Technology and Project Controls

URISA
NENA
APCO International
esri
Federal Geographic Data Committee
JIRA
Data Reviewer
GeoComm
ArcGIS Online
ArcGIS for Desktop
ArcGIS WebApp Builder
10.2.2
The NEMAP Secret Sauce
Standard Operating Procedures and Addressing Best Practices

Military bases are a whole new game.....

Privatized housing should be the first focus – changing residential addresses is highly sensitive.
Data Management

Phase 1: Schema and Personal Geodatabase
Phase 2: SQL Database and SDE (Regionals)
Phase 3: NEMAP CONUS Enterprise Geodatabase
The NEMAP Workspace
Collaboration, Review, and Document Sharing
NEMAP FAST

Search by building number or address. Filter by region and spatial extent. Find address, installation name, local gov't info, etc in pop-ups.
Going Forward
NEMAP Current State
CONUS Complete – Navy Region Hawaii and Joint Region Marianas
NEMAP Numbers

Region
- CNRNW
- CNRMW
- CNRMA
- CNRSE
- CNDW
- CNRSW
- CNRH
- JRM

Date Began
- Jul-2013
- Nov-2013
- Jul-2013
- Mar-2014
- Jan-2014
- Mar-2014
- June-2015
- Jul-2015

Date Completed
- Feb-2014
- Feb-2014
- Apr-2014
- Sep-2014
- May-2014
- Apr-2015
- TBC APR ‘16
- TBC JAN ‘16

Number of Addresses
- 5,938
- 4,366
- 18,255
- 10,560
- 6,154
- 20,111
- ~8500
- ~5000
Implementation, Maintenance, and Support
Navy 911: GIS Modernizes the US Navy’s Emergency Response Systems

By Amy Hrdlicka, GI&Si, and Marvin Garland, Serco, Inc.

A man entered the Soldier Readiness Processing Center, which prepares soldiers for deployment, at Fort Hood, Texas, on November 5, 2009. He sat at an empty table, paused for a few seconds, stood up, shouted, and began firing a weapon.

Within 10 minutes, 13 people were dead and more than 30 others were injured. Two minutes and 40 seconds after the first call to 911, first responders from on base were at the scene. A minute and a half later, officers shot the suspect. Ambulances arrived two and a half minutes after that, once the suspect was taken into custody.

Although emergency responders from off base arrived at Fort Hood quickly, there was no way for them to locate the victims. That is because Fort Hood, like many US military bases, did not have standard street addresses like the ones found in cities and towns across the United States.

Soon after the Fort Hood shooting, the US Navy decided to create standardized addresses and improve the Navy Emergency Response Management System using enterprise, geospatially enabled dispatch capabilities supported by Esri technology.