Regional Public Safety Geodatabase

A program of the Unified Disaster Council

Program Update

Program Objective & Products

- Provide Public Safety Data that is:
  - Interoperable (common symbols, templates, etc.)
  - Multi-jurisdictional
  - Multi-disciplinary
  - Displayed Visually (map viewers)
  - Multiple platforms, delivery methods
- Products:
  - Public safety focused GIS layers for dispatch
  - Regional mapbooks
  - Structure and Wildland preplans
  - Ready data in an incident response and recovery setting (SanMAPS)

RPSG Accomplishments

- Created a master public safety geodatabase – regional data schema.
- Created a single repository for the public safety geodatabase – server located at Chula Vista.
- Created change model process for making changes to the database.
- Created regional template and 2500+ high priority target hazard plans
- Created regional template and the 25 of the highest risk Wildland Urban Interface Fire Emergency Response Plans.
- Adoption of a region wide public safety grid.
- Provided regional aerial imagery.
- Created and printed common emergency response map books.
- Developed a consolidated street centerline data and address network that supports computer aided dispatch for emergency response routing.

RPSG Accomplishments 2014

- Adoption by the Unified Disaster Council
- Established Executive Committee under UDC
  - Chief Rick Minnick, Vista, and Diane McClarty, Heartland Communications, represent your agencies
- 2 Fire GIS Coordinators (San Diego, Suburban)
- 2015 Strategic Plan (attached) updated
- Produced 400 structure preplans and 25 wildland preplans
- Began collaboration with County and City of San Diego for better sharing of GIS data called SanMAPS

Continued Funding Needs

- The program will continue to seek UASI funds (~ $1.5 M) to:
  - Maintain staffing as accepted by UDC
  - Continue producing regional priority structure preplans and Wildland preplans
  - Implement Situational Awareness Mapping Application recommendations
  - Continue to develop data sharing and awareness of SanMAPS for incident support
  - Meet goals established in program strategic plan and regional strategic technology plan

San Diego Regional Public Safety Geodatabase Strategic Plan

2015

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Introduction

The Business Need

Within the San Diego region GIS data has been integrated into most aspects of the public safety mission to protect life, property, and natural resources. GIS is used within aspects of **planning** by assisting with the determination of response areas, fire station locations, creation of station wall maps, and identification of hazards. GIS supports incident **response** by providing the base map upon which CAD systems identify call locations and route calls, provides the map data found on MDCs that now exist on most fire apparatus in the region, and is used to create both digital and hardcopy map books. GIS is beginning to support **incident management** by providing digital target hazard preplans and data that are spatially correct and identify the location of features that are important during a response, and will soon be available in intelligent, interactive maps that will provide access to additional information, analysis, and data. GIS also plays a role in **recovery and mitigation** through the recording of damage assessment, identifying potential runoff issues, and assists in identifying areas that require further treatments to help with recovery.

Because GIS plays a key role in many aspects of public safety's mission, it is important that first responders are sharing and operating off the same information base throughout the region. The data will improve local response, make mutual aide more efficient, and support large incidents. By consolidating the data that supports the mission, the region will have the following:

- Assurance that responders on different systems show up at the same location and that command decision are made off of the same information
- A reduction of the duplication of effort by different agencies to maintain the same information
- The creation of a common-use geospatial language understood between different departments by the use of the same symbology on maps, and the use of similar formats and layouts for digital target hazard preplans
- The ability to more efficiently update and correct map books
- Quicker updates to and distribution of common operational data.

Purpose

The purpose of the San Diego Regional Public Safety Geodatabase program is to provide an interoperable, multi-jurisdictional, multi-discipline GIS data repository with regionalized, aggregated GIS data to support applications used by EMS, Fire and Law Enforcement agencies, Emergency Managers and other public safety decision makers.

Project Vision

The San Diego Regional Public Safety Geodatabase Project vision is to overcome traditional interoperability issues by standardizing map features, attributes, and symbology resulting in the development of a common-use geospatial language and visualization for emergency responders.

Project Background

This project was initially piloted by the North Zone and began in 2005. The initial project was managed by the City of Vista's Fire Department. The initial vision of the project was three fold:

- The creation of **one common base map** in which all agencies can respond.
- The installation of **mobile data computers (MDCs)** in all fire apparatus with **internet hotspots connection** at all fire stations.
- The capability for **CAD-to-CAD interoperability**.

The project and the vision have now spread to the other zones in the region and are being implemented through various methodologies by each department and zone. Additional capabilities have also been included into the program.

What has been accomplished to date?

The key accomplishments of the project include:

- ✓ Created a master public safety geodatabase – regional data schema.
- ✓ Created a single repository for the public safety geodatabase – server located at Chula Vista.
- ✓ Created change model process for making changes to the database.
- ✓ Created regional template for target hazard plans.
- ✓ Completed 2000 high priority target hazard plans utilizing regional template
- ✓ Created regional template for Wildland Urban Interface Fire Emergency Response Plans
- ✓ Completed the first 25 highest risk Wildland Urban Interface Fire Emergency Response Plans.
- ✓ Adoption of a region wide public safety grid.
- ✓ Provided regional aerial imagery.
- ✓ Created and printed common emergency response map books.
- ✓ Developed a consolidated street centerline data and address network that supports computer aided dispatch for emergency response routing.
- ✓ Created map viewers for a variety of data display.
- ✓ Initiated development and deployment of ArcGIS Online as a regional data sharing platform.

Strategic Goals

Strategic Goal #1 – Complete the transition of the Public Safety GIS project to the Unified Disaster Council Governance

Objectives:

- Identify representatives for the UDC GIS Committee.
- Update the Strategic Plan.
- Evaluate the make-up and representation model of the GIS Steering Committee and GIS Working Group.

Strategic Goal #2 – Identify and evaluate the long term staffing and support solutions that could be provided by UDC.

Objectives:

- Evaluate contract service solutions.
- Evaluate agency employed staffing solutions.
- Evaluate partnership solutions.
- Recommend the long term staffing and support solutions to the full UDC membership.
- Evaluate alternative staff support options such as internship's through colleges.

Strategic Goal #3- Identify data sharing opportunities.

Objectives:

- Enter into data sharing agreements with other entities (ie: SanGIS, federal, state partners).
- Identify other third party solutions that could benefit from use of the available GIS data.
- Create local GIS public safety library through use of ESRI Organizational Accounts (SanMAPS).
- Identify opportunities to provide data to law enforcement.
- Identify opportunities to provide data to emergency managers.

Strategic Goal #4- Continue to develop and maintain a consolidated emergency response mapping effort.

Objectives:

- Maintain master public safety geodatabase system, including hardware, software, services and data.
- Continue to consolidate regional public safety data into public safety geodatabase repository.
- Enable agency access to central repository through cloud services.
- Continue to participate in regional purchase of aerial imagery.

Strategic Goal #5 – Continue to prioritize, develop and maintain geospatially accessible digital target structure and wildland fire emergency response plans.

Objectives:

- Support the efforts to create new plans and maintain existing plans.
- Continue to enable regional access to PDF preplans .
- Provide tools to assist with preplan creation/data entry.
- Create process to automate the publishing of preplan report and maps.

Strategic Goal #6 - Maintain Emergency Response Map books that utilize a standardized public safety grid, symbology and attributes.

Objectives:

- Utilize map book template, public safety grid, symbology.
- Maintain the map book update process.
- Create a repository for map book pdf pages.

Strategic Goal #7 - Maintain a street centerline and address network that is compliant with geo-based Computer Aided Dispatch and utilized by all dispatch centers, emergency operations centers, public safety and emergency managers.

Objectives:

- Merge and consolidate all public safety roads data into one layer.
- Ensure that data is compatible with all geodatabases in the region.
- Develop regional workflows and procedures to ensure all road data updates are available on the central database. Provide a synchronized and consolidated geodatabase that is accessible to all partners in selected hosting solution.
- Identify opportunities to support the Next Generation 911 system mapping requirements.

Strategic Goal # 8 -Hazmat database integration to preplans.

Objectives:

- Coordinate with County of San Diego's Department of Environmental Health (DEH).
- Identify and format information necessary for the preplan hazmat report page.
- Establish link to the DEH hazmat database.
- Create script to pull necessary information and produce hazmat report page.

Strategic Goal #9 –Develop common operational data to support situational awareness and decision support systems.

Objectives:

- Develop GIS services for third party solutions. (ie: WebEOC, NICS, Digital Sandbox etc…)
- Develop local map viewers to display data.
- Construct tools to provide population impact analysis for incident areas, and white boarding