The American Red Cross
Presents:
Using Technology for Situational Awareness
and Decision Support with RC View

January 17, 2019 1-2 pm ET

Agenda

• Introduction
• Overview of the NISC
• American Red Cross Webinar
• Q&A
• Quiz for those seeking Continuing Education Units (CEUs)
Today’s Speakers

- Sean McSpaden, NISC Executive Director
- Greg Tune, Manager, Geospatial Technology, American Red Cross

Continuing Education Units (CEUs)

- CEUs will be awarded to participants that watch the webinar and complete the quiz following the webinar
- 0.1 CEUs for this hour-long event
Learning Objectives

- Understand how the Red Cross uses RC View to dispatch local disaster volunteers
- Understand how the Red Cross uses RC View for situational awareness
- Understand how RC View provides decision support for Red Cross leadership

If you have questions during the webinar, please submit using the question feature in GoToWebinar.

NISC Mission-Focused Job Aids Webinar Series

- In-depth discussion of tools, techniques, and standard operating procedures used for information sharing
- Webinar content applicable to multiple fields, including:
  - Homeland security,
  - Emergency management,
  - Public safety,
  - First responder, and
  - Healthcare preparedness.
NISC Mission-Focused Job Aids Webinar Series

- February 21: Transparency in Procurement: How Aggregating Existing Contracts and References Will Lower Cost, Risk, and Time to buy New Technology (co-hosted by the NISC and Marketplace.city)
- March 13: Crisis Event Response and Recovery Access (CERRA) Framework Presentation (co-hosted by the NISC and DHS Emergency Services Sector)
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Visit https://www.nisconsortium.org/nisc-activities/niscwebinars/ to register for upcoming webinars or view prior webinars

National Information Sharing Consortium

The NISC is a non-profit organization devoted to improving information sharing at all levels of government and for all homeland security, emergency management, first responder, healthcare, and public safety stakeholders.
NISC Members Span Multiple Domains & Disciplines

Public Sector – Private Sector – Non-profits

- Communications
- Critical Infrastructure
- Emergency Management
- EMS
- Fire
- GIS
- Information Technology
- Law Enforcement
- Military
- Private Industry
- Public Health
- Homeland Security

Member Benefits & Application

- Guidance and technical assistance
- Knowledge exchange and networking opportunities
- Access to the NISC Member Portal

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Using Technology for Situational Awareness and Decision Support with **RC View**

**RC View**

Introduction and Overview
**RC View**

- **RC View** (Red Cross Visual Interactive Event Wizard) is Disaster Services’ disaster event management system.
- Initial development began in 2014 and the RFP was let in 2015
- Esri won the contract on a scaled down RFP in 2015
- Built on Esri’s ArcGIS Enterprise Portal (out-of-the-box) solution
- Two modules were in the first phase
  - DAT Dispatch
  - Portal Mapping (ArcGIS Online)
- Esri sub-contracted Noggin from Australia for the DAT Dispatch module
- An Enterprise Portal (FedRamp Medium) was set-up for Online Mapping
- Initially ~300 volunteers were trained in all 64 Regions as “Map Writers”
- Single Sign-on employed using Volunteer Connection, RedCross.org and Noggin’s OCA for access

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**RC View**

**Current:**
- DAT Dispatch
- Portal Mapping (ArcGIS Online)
- RC Collect (Survey 123)

**Near Future:**
- Operational Shelter System (OSS)
- Partner, Donor, Public HUB
Accessing RC View

- The RC View Log-in landing page uses the Redcross.org back-end (SAML) for user authentication
- Once authenticated, Volunteer Connection determines if user is affiliated with Disaster Services
- Affiliated volunteers are sent to OCA via API every night
- A script runs after the VC – OCA API that adds new members to the Enterprise Portal
- Each user is assigned the RC Collect role and added to their Region Group

RC View Landing Page

- Once logged in, the RC View landing page shows the applications available to the user
- Tiles are color-coded by activity
  - Blue – DAT Dispatch
  - Orange – Mapping
  - Purple – Training
- New tiles will be added in 2019
  - OSS
  - HUB

Note: RC Collect (Survey 123) does not have a tile.
RC View

DAT Dispatch

DAT Dispatch App

DAT Dispatch App used to Contact the DAT Team on-call to Respond to the scene

Local Chapter

Based on predetermined Rules, the call will go to Either the National Call Center or the Local Chapter Answering Service

National Call Center

Local Response Agency uses ARC National 800 Number to contact the local Red Cross Disaster Action Team

Responding Agencies

Incident Occurs

Displaced Persons

DAT Team responds and provides assistance as needed

DAT Team

1/17/2019
• New Call information is entered into the DAT Dispatch App and based on pre-defined schedules and incident location, the correct DAT team is dispatched to the scene
ArcGIS Online for Organization to RC View
ArcGIS Enterprise Portal

• Over Twenty years experience with GIS
  • ArcMAP
  • ArcGIS Pro
  • ArcGIS Online

• RC View has opened a new level of user and expanded our mapper base

GIS (RC View) in Support of Response Decisions

Management Decisions
(High Level)

- Budget
- Personnel
- Vehicles
- Material Resources
- Service Locations

Service Delivery Decisions
(Detailed)

- Method
- Who’s Impacted?
- How Impacted?
- Detailed Locations
- Where are the Clients?
Legacy Technology is the primary source of Red Cross data used in RC View

RC View
Enterprise Portal Mapping
Esri complete GIS Suite supports RC View Mapping

- ArcMAP used for large batch geocoding
- ArcMAP used for feature service creation with more than 1,000 points
- ArcGIS Pro used for appending to hosted feature services

Groups and Galleries used for curated Maps, Apps and Data

- Groups are created for each Gallery
- All Galleries are shared to the Organization or Public
- All curated Maps, Apps and Data are added to the Group for easy access in the Gallery
- The DRO Gallery has links to each active DRO Gallery
- Each specific DRO Gallery has the various items: Maps, Apps and Data for that DR
### Story Apps – National Operations Summary

- The National Situational Awareness Map within the App is maintained by the NHQ Fusion Desk and updated each morning.
- A GeoForm is used for data entry of each event.
- The events represent only events that have received a DR number and symbols are represented by size and level.

### GeoForm – Editable Incident Management

- DRO Tracker GeoForm currently completed at NHQ Fusion Desk.
- Goal to deploy the DRO Tracker to the Regions in 2019 for local data entry.
- Data entered auto updates the geodatabase.
- The location address is searched using the GeoForm to generate the georeferenced location that becomes the point on the map.
- The map auto-updates with every new GeoForm entry.
- The WebMap is the source map and the WebApp is the publically available application.
RC View
Situational Awareness with Impact Assessment Story Apps

Web App Builder App in a Story Map Series (Accordion)
Story Map Series (Tabbed) in a Story Map Series (Accordion)

Dashboard in a Story Map Series (Tabbed) in a Story Map Series (Accordion)
RC View

Situational Awareness with Weather Assessment Story Apps

- Access to real-time or near real-time GIS weather data is critical
- The data supports the Red Cross’ ability to create geospatial products for decision makers
Story Map Series (Tabbed)

Web App Builder App in a Story Map Series (Accordion)
Story Map Series (Tabbed) in a Story Map Series (Accordion)

Situational Awareness and Decision Support with Story Apps and Dashboards

RC View

Situational Awareness and Decision Support with Story Apps and Dashboards
Web App Builder (WAB)

RC View
Decision Support with Web Apps
Web App Builder (WAB)

- Imagery Derived Assessment completed using Post-Event Imagery in ArcMAP (Desktop)
- RC Collect survey created to use as the data-entry tool
- Over 5,000 locations assessed in two days
- All points were reversed geocoded to derive the address
- Caseworkers used the tool to look-up clients' address. If the address was found and based on the damage, the caseworker was authorized to provide immediate financial assistance
Community Analyst

Service Delivery Damage Verification Support with GIS

Demo Link

Web App Builder (WAB)

- ARC Detailed Damaged Assessment compared to FEMA Registrations
- Showing delta of addresses that do not match
- Client Casework scheduled Outreach teams to visit the unmatched addresses to ensure there were no unmet needs
Web App Builder (WAB)

- Mapping Shelterees still in the Shelter
- Allows Client Casework to determine long term assistance

Dashboard

Underserved Population

2,178
RC View
Decision Support with RC Collect

RC Collect
Detailed Damage Assessment Field Collection
RC Collect – Editable Damage Points

Once the point is saved in RC Collect it is now visible to anyone using the Web Map or Web App.

The point data is saved to the geodatabase and is now available for Client Assistance.

RC View

Using Azure and Power BI for Analytics in DRO Director’s Brief Story Apps
Microsoft Azure used as Master Database for all Power BI Apps

Data from Microsoft Azure is the source database for Power BI Apps

Power BI Apps embedded in all Director’s Brief Story Apps

• Manual Azure Data Entry
• Azure to Power BI is automated with a manual refresh

Web App Builder App in a Story Map Series (Accordion)

Microsoft Azure used as Master Database for all Power BI Apps

Data from Microsoft Azure is the source database for Power BI Apps
Story Map Series (Tabbed) in a Story Map Series (Accordion)

<table>
<thead>
<tr>
<th>State</th>
<th>Prospective EBV</th>
<th>Total EBV Available to sign up for Shift</th>
<th>Shift Tool 11/10</th>
<th>Cumulative (DR Start through 11/10)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>+/- from previous day</td>
<td></td>
<td>Shifts Available</td>
<td>Shifts Filled</td>
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<tr>
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<tr>
<td>Total</td>
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<td>48</td>
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</tr>
</tbody>
</table>

Power BI App in a Story Map Series (Accordion)
Power BI App in a Story Map Series (Accordion)

DR 769-19 Camp Fire 11/18 FOR Director's Brief

16 ERV Analytics
17 DES Analytics
18 Staffing Analytics
19 Staffing Proximity
20 EBV Analytics
21 Vehicle Analytics
22 Total Vehicles
23 Staffing Comparison Model

DR 769-19 Camp Fire CA 11/18 FOR - Staffing Model Tool

EMO Template Double Level

Current Staff Checked in by Group

Staff Checked In Target Staff Count
164
22

Staff Checked In to Template Sorted By Date

Staff Assignments to Date

Power BI App in a Story Map Series (Accordion)

DR 769-19 Camp Fire 11/18 FOR Director's Brief

22 Total Vehicles
23 Staffing Comparison Model
24 Walmart Status Map
25 Safe & Well Analytics
26 DST Dashboard
27 FEMA Dashboard
28 Recovery Dashboard
29 CAS Recovery Dashboard

Shelter Residence Needs Camp Fire

560

Dwelling Type

Ownership

Family Size

Client Age Distribution

Relief Needs

Housing Needs

Home Repair Needs

Home Appliance Needs

Medical Devices Needs

Occupational Needs

571

371

278

9

31

155

26

79

80
Power BI App

Power BI App
RC View
Partner, Donor and Public HUB
Partner, Donor, Public Hub

• Currently under development
• Expected go-live Summer 2019
Thank You!

Greg Tune
Geospatial Technology Lead
greg.tune@redcross.org

Q&A

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Quiz

- Following the webinar you will be prompted to complete a quiz
- Complete the quiz to receive your continuing education units (CEUs) for this session