HERDING THE CATS: MANAGING INFORMATION DURING DISASTER RESPONSE

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2018 Project Management Symposium
Learning Objectives

- Understand basic management information systems (MIS).
- Understand how MIS are used during disaster recovery.
- Understand how the electronic workflows and forms are used during disaster recovery.
- See practical applications of these concepts.
What We Know

- Disaster response is information intensive.
- Document management is critical.
- Every state seems to start from scratch on their MIS systems.
- There still remains considerable use of manual information movement.
- Considerable inefficiency.
MIS Desired Attributes

- Process automation
- Single point of data entry
- Accountability
- Document management
- Web access on any platform
- Management visibility
- Integrated systems
HURRICANE/SUPERSTORM SANDY
Hurricane Sandy

- Deadliest and most destructive in 2012 hurricane season
- $68B in damages
- 233 fatalities
- 2\textsuperscript{nd} costliest hurricane on record
- Came ashore in Brigantine, NJ
## Hurricane Sandy MIS

<table>
<thead>
<tr>
<th>Program</th>
<th>Rapid Repairs</th>
<th>NYS Housing</th>
<th>NJ RREM</th>
<th>NYS GOSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automation</td>
<td>X</td>
<td></td>
<td>X</td>
<td>Manual</td>
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<td>Data Entry</td>
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<td>Accountability</td>
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<td>Web Access</td>
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<td>Manual</td>
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<td>Visibility</td>
<td>Reporting</td>
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<td>Integration</td>
<td>Cold Link</td>
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NYC RAPID REPAIRS
NYC Rapid Repairs

- 15,000 houses
- Execution: NOV 2012 - MAR 2013
- Paperwork: MAR 2013 - SEP 2013
- Electricity, heat, water only
- $25,000 cap per property
NYC Rapid Repairs

- FEMA’s 1st stay in place program
- Program Manager
- 9 Construction contractors
- 1000 homes per week back on line
- Pre-position major pieces of equipment
  - Hot water heaters
  - Electrical panel boxes
NYC Rapid Repairs MIS

- Access Database
  - Project information
  - Funding
- One contractor with mobile data collection
- Permanent records all paper
NYS Housing Program

- 4,500 houses
- Execution: AUG 2013 - OCT 2013
- Reimbursement inspections
- $300,000 cap per property
- Attempt to distribute monies prior to one year anniversary
NYS Housing Program

- 1 lead program manager
- 2 other program managers
- Staffing peak at 650
- $1M/day burn rate
- Inspections completed in 3 weeks
- Less than $1M distributed by one-year anniversary
NYS Housing Program MIS

- Access Database
  - Inspection documents
  - Construction estimates
- Thumb drive “sneaker net” document movement
- Static forms and estimates
NJ RREM
NJ RREM

- Reconstruction, Rehabilitation, Elevation and Mitigation
- Over 9,000 homeowner applications
  - 7,429 grant agreements signed
  - 5,929 homes rebuilt
- Execution: MAY 2013 - Ongoing
- $150,000 cap per property
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<th>Amount</th>
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<tr>
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<td>RREM</td>
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As of April 23, 2018
NJ RREM

- Permanent housing solution
- 1 lead program manager
- 2 other program managers
- 25 Construction contractors
- Full phase program
  - Preliminary design and estimate
  - Design
  - Construction
  - Closeout
NJ RREM

- SharePoint site
  - Workflow and forms
  - Homeowner interaction
  - Document processing, tracking and repository
- System of record access database
- Considerable interface design to move information in and out
- Permanent records all electronic
  - Submitted by home
NYS GOSR
NYS GOSR

- Governor’s Office of Storm Recovery
- Execution: DEC 2013 – Ongoing
- Programs
  - Housing
  - Economic Development
  - Community Reconstruction
  - Infrastructure
NYS GOSR Funding

- Housing
  $4,919,603,949
- Economic Development
  $242,391,500
- Community Reconstruction
  $698,432,500
- Infrastructure
  $24,799,115,535
NYS GOSR

• 1 lead program manager
• Numerous consultants
• Homeowner program - 16,000 applicants
• Small Business - 1,350 applicants
NYS GOSR MIS

- System of record: Intelligrants
  - Application and supporting documents
- Invoices and certified payrolls: Elation Systems
  - Manual upload into Intelligrants
- Excel “smartsheet” for process tracking
  - Manual upload into Intelligrants
  - No workflow—check location on spreadsheet
Lessons Learned

- Manage the information and documents
- Eliminate inefficiency
- Workflow is essential
  - Routing and document review/approval
  - Nothing falls through the cracks
- Effective passing information between systems
- Consideration of single system with web access
- Use of off the shelf software—why
Achieving MIS Desired Attributes

- Process automation
- Single point of data entry
- Accountability
- Document management
- Web access on any platform
- Management visibility
- Integrated systems
Changing the Way we Think

- FEMA needs to establish best practices
- Workflow utilization
- System integration
- Single system/single responsibility
- Constant improvement
- Application on other programs

http://pmsymposium.umd.edu
Thank You!

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