LESSONS FROM WORKING FOR FEMA IN RESPONSE TO HURRICANE MARIA IN PUERTO RICO

Dwayne Meadows, Ph.D.
Dwayne.Meadows@noaa.gov
Outline

- My Background
- FEMA Surge Capacity Force
- Puerto Rico
  - Issues
  - Resiliency Factors
  - Lessons
My Background

- Conservation Ecologist
- Work on Coral Reef Restoration and Marine Debris from storms, oil spills, tsunamis
- Tsunami advisor: Hawaii Civil Defense, NOAA
- First Responder
- Survivor
FEMA’s Surge Capacity Force

- From Post-Katrina Emergency Management Reform Act
  - deploy Federal employees to help “rapidly” respond to disasters and acts of terrorism
  - “Ensure…a sufficient number…
  - “appropriate and continuous training”

- FEMA failed to implement the program
  - Government Accountability Office warns in 2008, 2015 for inadequate staff (26%), training, recruiting, outcomes
  - 2016-2020 Human Capital Plan not even mention SCF
2017 Activation

- Harvey August 26th, Irma Sept 6, Maria Sept 20th
- SCF Activated August 28th (DHS), Sept. 12 (other Feds)
- Ultimately ~5000 Feds (supposed to have 15,400 ready!)
- I deployed Oct 2 for 4 training days. then to Puerto Rico

Lines, lines, everywhere a line
<table>
<thead>
<tr>
<th>Service</th>
<th>26 Sept</th>
<th>11 Oct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellular Antennas</td>
<td>8%</td>
<td>21%</td>
</tr>
<tr>
<td>Open Pharmacies</td>
<td>~30%</td>
<td>~80%</td>
</tr>
<tr>
<td>Refugees</td>
<td>10.2K</td>
<td>5.6K</td>
</tr>
<tr>
<td>Water Service</td>
<td>37%</td>
<td>60%</td>
</tr>
<tr>
<td>Electric Generation**</td>
<td>5%</td>
<td>16%</td>
</tr>
</tbody>
</table>
Always Crowds for FEMA aid
Issues

- Last of 3 storms: depleted resources
- Local/Commonwealth first responders overwhelmed - Bankrupt finances
- Underprepared
  - FEMA Stockpiles sent to USVI for Irma, few local stocks
  - Only tested CAT 1 plans
  - Little sub-city organization
  - Rural Addressing
Issues

- An Island surrounded by BIG water!
  - Transport and lodging logistics
  - Aid, responders, evacuation, survivors
**Issues**

- **Little Comms:**
  - FEMA iPads useless
  - resurrect old FEMA paper forms
- **MAPS.ME offline GIS maps (support removed)**
- **Pollution and Disease**
Territorial FEMA

- many spare staff not shared as needed across groups
- >1 month to open ANY disaster centers
Issues

- First Responder Safety
- Special Needs Communities
- Health care facilities
Resiliency Factors

- Strong social bonds: family, long-term neighbors, etc
- Collaborative, optimistic spirit
- Dedicated visitors
- Diaspora
Lessons

- Politicization of Response and Aid
  - Federal AND Local
- Redundancy at ALL levels
- There are no lanes: resiliency ACROSS levels
- Local and Neighborhood Organization
- Decentralize
- Mental Health
- Special Needs