A Disaster Case Study: Cultural Heritage and the Arts

U.S. Virgin Islands
Hurricanes Irma and Maria

September 2017
A Disclaimer

- USVI Resident 41 years
- USVI Territorial Archivist 2008-2017
  Government of the Virgin Islands
  Dept. of Planning and Natural Resources
  Division of Libraries, Archives and Museums
- Heritage Emergency National Task Force
  (HENTF) Liaison 2018-2019
  FEMA DR-4335/4340-VI
- Citizen Advocate
- UVI Hazard Mitigation and Resilience Plan Project
context

Geography
Geography context
Historical

- Danish West Indies
  - St. Thomas (1672)
  - St. John (1718)
  - St. Croix (1733)

- Principal Industries
  - Sugarcane
  - Trade/Shipping (St. Thomas)

- Principal Languages
  - English
  - Danish

- 1917 Denmark sells the DWI to the United States
Political

- Organized, unincorporated U.S. Territory
- Population: 105,000 (estimated)
- One (1) non-voting Representative in US House of Representatives (2-year term)
- No U.S. Presidential voting rights
- Elected Governor/Lt. Governor (4-year term)
- Unicameral legislature (2-year terms)
  - 7 Senators from St. Thomas
  - 7 Senators from St. Croix
  - 1 Senator-at-large from St. John
- Office of Insular Affairs, Department of the Interior
Recent USVI Disasters

- Cat 4 Hurricane Hugo (September 17-18, 1989)
- Cat 2 Hurricane Marilyn (September 15-16, 1995) (eyewall passed directly over St. Thomas)
The 2003 seismic hazard maps used to set building code standards and insurance rates places the northern Virgin Islands entirely in the most serious Zone 4, the same as the San Andreas Fault along the California coast, with St. Croix in Zone 3.
The U.S. Virgin Islands is unique in the U.S. It is not only rated Seismic Zone 4, but also falls within the most severe High Wind Rating under the International Building Code ICC-600 Standard.

For the construction industry, government regulators, and for insurers, this duality raises an issue: Should the U.S. Virgin Islands build for strength (rigidity) or flexibility?
Predisposition: The State of the USVI

- Physical state of infrastructure
- Infrastructure standards
- Regulation
- Planning for storms
- Dependence on Puerto Rico
- Pre-storm preparation
Predisposition: Examples

context

SECTORS
- Energy
- Telecommunications
- Transportation
- Water
- Waste management
- Housing
- Economy
Hurricane Irma
September 6, 2017

Hurricane Maria
September 20, 2017

Cat 5 + Cat 5
= Cat 10
### Saffir-Simpson Hurricane Wind Scale

<table>
<thead>
<tr>
<th>Category</th>
<th>Wind Speeds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Miles (mph)</td>
</tr>
<tr>
<td>FIVE</td>
<td>≥ 157 mph</td>
</tr>
<tr>
<td>FOUR</td>
<td>130 to 156 mph</td>
</tr>
<tr>
<td>THREE</td>
<td>111 to 129 mph</td>
</tr>
<tr>
<td>TWO</td>
<td>96 to 110 mph</td>
</tr>
<tr>
<td>ONE</td>
<td>74 to 95 mph</td>
</tr>
</tbody>
</table>

* This scale only takes wind speed into consideration.
* Only used for hurricanes that form in the Atlantic Ocean & Northern Pacific Ocean.
* In 2012, the NHC expand the windspeed for category 4 by 1 mph in both directions.
September 6, 2017

Cat 5 Hurricane Irma: Sustained winds of 178 mph
Cat 5 Hurricane Irma: Estimated wind impacts
Hurricane Irma: Leaf Cover Impact

Impact of Hurricane Irma on leaf cover on St. Thomas and St. John
NASA
St. John aerial imagery after (L) and before (R) Hurricane Irma
St. Thomas images
(clockwise from top left):
Downtown Charlotte Amalie;
Schneider Regional Medical Center;
Cyril E. King Airport Terminal.
September 20, 2017
Cat 5 Hurricane Maria: Sustained 105 mph, gusts 137 mph
Maria’s eyewall passes over the Western end of St. Croix.
Toppled trees lie on a tennis court after Hurricane Maria battered St. Croix, U.S. Virgin Islands on Sept. 21. Jonathan Drake—Reuters
St. Croix images (clockwise from top right): Downed power lines; gas station under water with snapped utility pole; man outside his home after the storm.
Public Library
Christiansted, St. Croix.
cultural heritage & arts

Disaster Response and Risk Management
The legacy of physical artifacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations.
Types

**TANGIBLE**
- buildings, historic places, monuments, significant artifacts, or other objects that are considered worthy of preservation for the future. These include “objects significant to the archaeology, architecture, science or technology of a specific culture”

**INTANGIBLE**
- traditions or living expressions inherited from our ancestors and passed on to our descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts

Source: Promoting Disaster Resilient Cultural Heritage (World Bank Group, October 2017)
The term "the arts" includes, but is not limited to, music (instrumental and vocal), dance, drama, folk art, creative writing, architecture and allied fields, painting, sculpture, photography, graphic and craft arts, industrial design, costume and fashion design, motion pictures, television, radio, film, video, tape and sound recording, the arts related to the presentation, performance, execution, and exhibition of such major art forms, all those traditional arts practiced by the diverse peoples of this country. *(sic)* and the study and application of the arts to the human environment.
To protect cultural heritage in our nation’s states, tribes, territories, and local communities from the damaging effects of natural disasters and other emergencies.
USVI Cultural Heritage and the Arts

- GOVI
- VITEMA
- USACE
- FEMA
- DOI
- NPS
- Nonprofits
- Private Consultants/Contractors

Some Federal Government, Local Government, and Other Partners for Response, Recovery and Mitigation Phases in the USVI
National Response Framework

National Response Framework
Third Edition
June 2016

Homeland Security
• Undocumented universe of VI cultural heritage and arts organizations, institutions, associations, individuals, locations, and assets
• 09/–11/2017: VI cultural heritage and arts not included in “critical” response phase
• 11/2017: Meeting on VITEMA/FEMA Public Assistance information for cultural heritage and arts communities
• 12/2017 – 03/2108: Some VI HENTF roles performed by mission-assigned federal employees (NPS, OMB, NARA, Smithsonian)
• 03/2017: Site assessments (26) by NARA/Smithsonian team; report issued
National Disaster Recovery Framework

Second Edition
June 2016

Homeland Security
• HENTF Liaison position approved for VI six (6) months after the disaster response phase began and just as the recovery phase transition began to take shape (NB, still in process)
• Embedded in FEMA EHP for DR-4335/4340-VI
• EHP responsible for federal compliance for PA applications; “stay in lane”
• FEMA Unified Federal Review (UFR) and HENTF function
• Natural and Cultural Resources Recovery Support Function (NCR RSF) and HENTF function
• NPS lead on NCR RSF, reported to DOI
A Three-Lane Highway

hentf reality

EHP

NCR

RSF

UFR
HENTF Liaison Objectives

- HENTF Visibility
- Action Item Follow-up: NCR RSF Site Assessment Recommendations
- Inventory of Cultural/Arts Assets
- Emergency Response Network Building
- Training for Cultural/Arts Asset Caregivers
- Disaster Response Training for Emergency Responders
- Information Clearinghouse for Emergency Funding
- Strategic Planning for Territory’s Cultural/Arts Assets Conservation/Preservation
HENTF Liaison

Objectives

- HENTF Visibility
  - Public Assistance candidate field visits, calls
  - FEMA / DOI / GOVI
  - Meetings, phone conferences
  - Lane changing!
  - Workshops, events, supply donations
  - Long-Term Recovery Group participation
  - Articles, announcements, email
  - HENTF review of FEMA literature
  - Education opportunities
  - JOIN!
HENTF Liaison Objectives

- **Action Item Follow-up:** NCR RSF Site Assessment Recommendations
  - Example: Legislature of the Virgin Islands
    - Balfor Conservation Treatment
    - SCRI Assistance
    - Retention Scheduling
    - Records Management Training
    - Archives Management Training
    - Digitization Project Training

mission critical
VI Legislative Archives Damage
HENTF Liaison Objectives

- Inventory of Cultural/Arts Assets
  - If it exists, maintain it
  - If it isn’t up-to-date, update it
  - If it doesn’t exist, do it!
  - GIS mapping layer
  - Images
  - Harvest statistical data
  - Disseminate information
HENTF Liaison

Objectives

- Emergency Response Network Building
- Training for Cultural/Arts Asset Caregivers
- Disaster Response Training for Emergency Responders

- 06/2017 Heritage Emergency and Response Training (HEART) Workshops [Smithsonian Cultural Rescue Initiative (SCRI), HENTF Liaison, DPNR]
- 11/2017 Alliance for Response Forum [UVI, HENTF Liaison]
- 06/2018 Arts Response Training (ART) Workshops [UVI, HENTF Liaison, Cerf+, LYRASIS]

mission critical
HENTF Liaison

Objectives

- Information Clearinghouse for Emergency Funding
  - Community foundations
  - National Coalition for Arts’ Preparedness and Emergency Response (NCAPER)
- Subscribe!
- Establish universal arts fund
HENTF Liaison
Objectives

- Strategic Planning for Territory’s Cultural/Arts Assets Conservation/Preservation
  - Seat at the decision table
  - Self-promotion
  - Training
  - Site Assessments
  - Hazard Mitigation Planning Project
Thank You!

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