



NCST Advisory Committee Meeting, September 6, 2019

NCST Technical Investigation of Hurricane Maria's Impacts on Puerto Rico

Contract, Project Management, and Communications Support

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Hurricane Maria NCST Investigation and NWIRP Study

- Using the authority of the National Construction Safety Team (NCST) Act, the NIST Director established a Team under the NCST Act (Public Law 107-231) on February 21, 2018 to conduct a technical investigation of the effects of Hurricane Maria on the U.S. territory of Puerto Rico.
- The investigation is exploring the effects of Hurricane Maria on Puerto Rico's buildings, communities, and supporting infrastructure.
- Under the National Windstorm Impact Reduction Act Reauthorization of 2015 (Public Law 114-52), NIST is conducting a *scientific study* of Hurricane Maria's impacts on Puerto Rico and subsequent recovery processes.
- NIST is also studying the effects of Hurricane Maria on Puerto Rico's recovery of buildings, communities, and supporting infrastructure using the National Windstorm Impact Reduction Act.



NIST's Hurricane Maria Program

Under NIST's Hurricane Maria Program NIST is conducting an investigation under the NCST Act and a study under NWIRP.

NCST Investigation Projects:

1. Hazard Characterization
2. Performance of Critical Buildings
3. Public Response (Evacuation) and Emergency Communications
4. Characterization of Morbidity and Mortality

NWIRP Study Projects:

5. Recovery of Business and Supply Chains
6. Recovery of Social Functions
7. Recovery of Infrastructure Systems

This level of effort will require a considerable level of communication, contractual, and project management support.

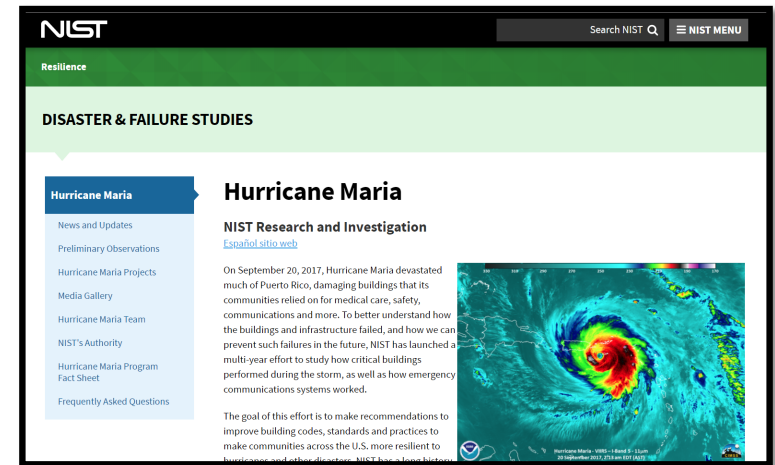
Communication

Background:

- Due to the high visibility of the effects of Hurricane Maria, the Program will require the facilitation and support for communication needs.

Objectives:

- Create and maintain dedicated Hurricane Maria Program websites in both Spanish and English that allow the public to remain informed of the purpose, progress, and accomplishments of the Hurricane Maria Program.
- The websites contain up to date information regarding the purpose of the projects, status of the projects, background on NIST's authority to investigate/study the effects of Hurricane Maria and a media gallery to highlight the physical damage done by Hurricane Maria.



<https://www.nist.gov/topics/disaster-failure-studies/hurricane-maria>

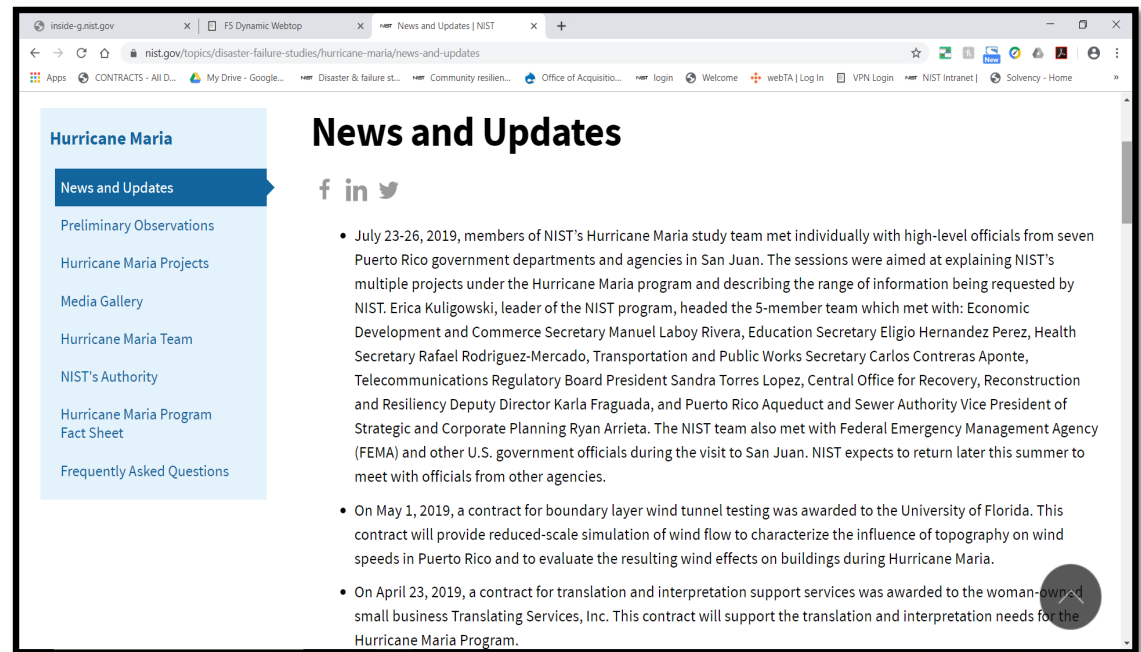


<https://www.nist.gov/topics/disaster-failure-studies/estudio-e-investigacion-de-nist>

Communication

News and Updates Section

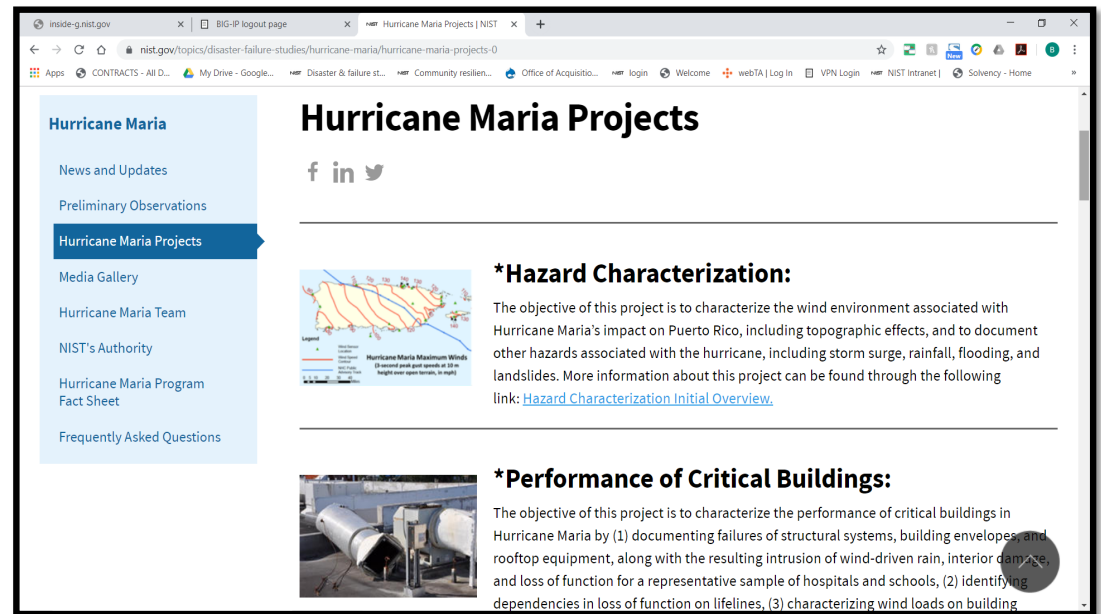
- This section is dedicated to providing the most up to date information on the progress of the Program. It contains information such as important meetings that take place and program accomplishments.



Communication

Hurricane Maria Projects

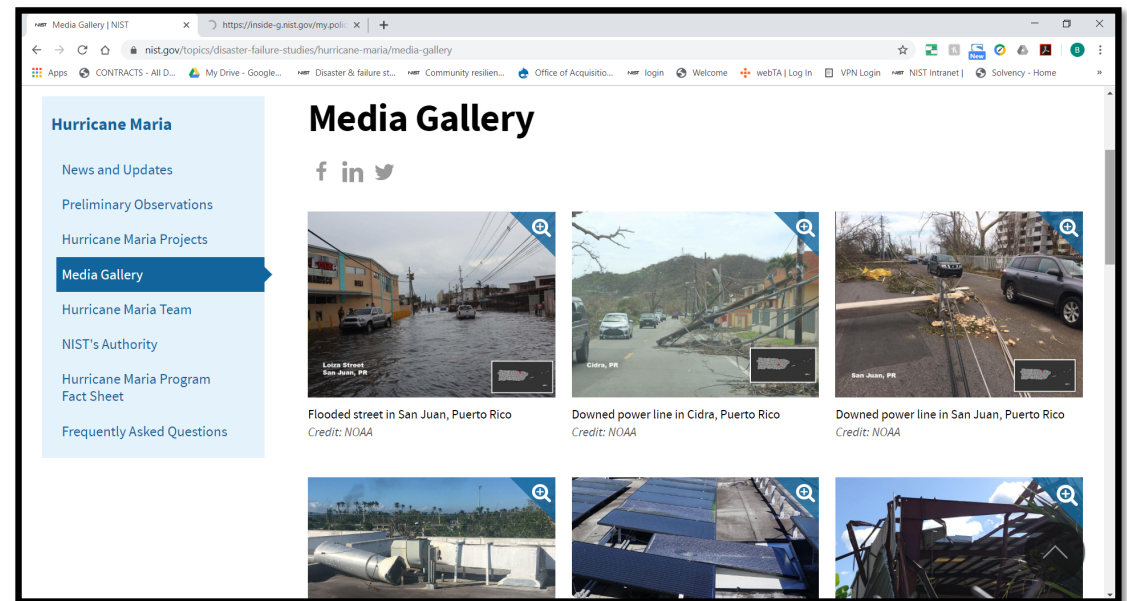
- The projects page contains detailed background information on each of the 7 projects that fall under the Program.
- The page will continue to be updated as each project progresses.



Communication

Media Gallery

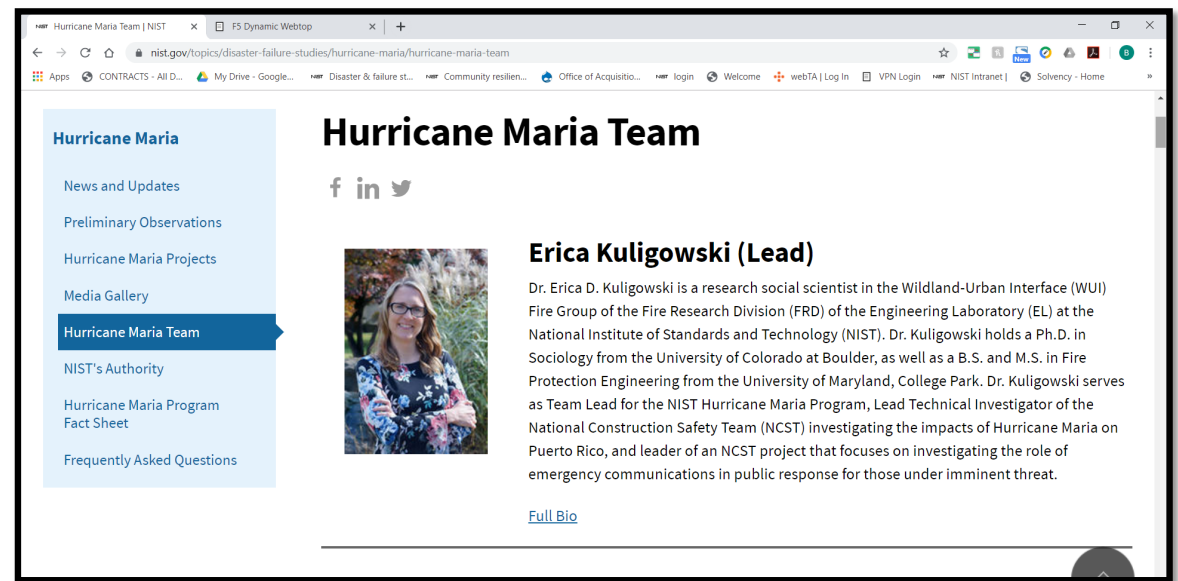
- The media gallery page is updated periodically with images that will include the devastation that Hurricane Maria caused to the physical infrastructure of Puerto Rico.



Communication

Hurricane Maria Team

- This page contains abbreviated bios for each of the Hurricane Maria Program members along with links to their full bios.



Fact Sheet

- The Hurricane Maria Fact Sheet page contains information about the background, goals, and key points about NIST's interest in Hurricane Maria.

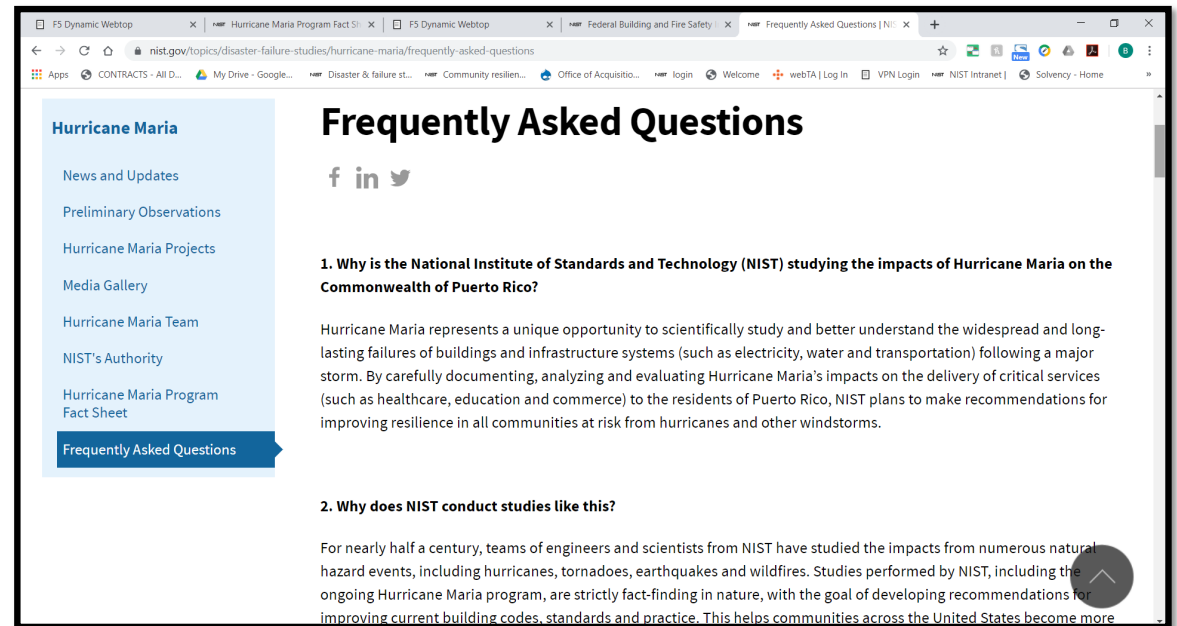
Communication

The screenshot shows a web browser displaying the "Hurricane Maria Program Fact Sheet" page. The browser's address bar shows the URL: [nist.gov/topics/disaster-failure-studies/hurricane-maria/hurricane-maria-program-fact-sheet](https://www.nist.gov/topics/disaster-failure-studies/hurricane-maria/hurricane-maria-program-fact-sheet). The page features a navigation menu on the left with the following items: "Hurricane Maria", "News and Updates", "Preliminary Observations", "Hurricane Maria Projects", "Media Gallery", "Hurricane Maria Team", "NIST's Authority", "Hurricane Maria Program Fact Sheet" (highlighted), and "Frequently Asked Questions". The main content area has the title "Hurricane Maria Program Fact Sheet" with social media icons for Facebook, LinkedIn, and Twitter. Below the title is the main heading: "Hurricane Maria in Puerto Rico: NIST Researchers Study What Happened, Will Recommend Improvements" with a link to the "PDF Version". A section titled "Background and Goals:" contains the following text: "On September 20, 2017, Hurricane Maria caused devastating damage in Puerto Rico, severely affecting buildings that its communities relied upon for medical care, safety, communications, education, business, and more. To better understand failures in buildings and infrastructure as well as emergency communications – and how we can prevent such extensive failures in the future – the U.S. National Institute of Standards and Technology (NIST) launched a multi-year effort. The NIST program is studying how critical buildings performed during the storm, as well as how emergency communications systems worked. NIST is a science and engineering agency of the U.S. Department of Commerce." A final paragraph states: "The goal of this effort is to recommend improved building codes, standards and practices that would make communities in Puerto Rico and across the U.S. more resilient to hurricanes and other disasters. The results should help to mitigate future disasters and assist in recovery efforts to build back better, leading to more resilient communities."

Communication

Frequently Asked Questions

- This page contains answers to questions that are frequently asked about NCST investigations, as well as questions that are more specific to the Hurricane Maria NCST investigation (e.g. Is NIST working with public and private organizations in Puerto Rico?).



Contract Management

Background:

- Support contracts will need to be awarded and contract oversight will need to be provided to ensure project objectives and deliverables are met timely.

Objective:

- Oversee the development of necessary contractual documents and monitor technical progress and spending by contractors to ensure effective use of federal funds
- Ensure that an effective overall contracting strategy to support the Hurricane Maria Program is in place



Contract Management

Thus far the following contracts have been awarded to support the Hurricane Maria Program:

- **[NCST] Wind Tunnel Testing** – Wind tunnel testing services and field measurements of winds in Puerto Rico (University of Florida)
- **[NCST] Wind Mapping** – Wind data analysis and hurricane wind field modeling to reconstruct the surface level winds in Puerto Rico during Hurricane Maria (ARA)
- **[NCST/NWIRP] Technical Writing*** – Technical writing support for documents produced by the Hurricane Maria Program (CatMedia)
- **[NCST/NWIRP] Translation Support*** – Interpretation and translation support (Lazar Translation)
- **[NCST] Transcription and Translation of Emergency Communications videos** – Transcription and translation of the 96 emergency communication-related videos (PGLS LLC)
- **[NCST/NWIRP] Communication and Outreach Support*** – Overarching communication strategy support for the Hurricane Maria program (Strativia)

* Additional information provided in the presentation

Contract Management

Technical Writing Support

- On Feb. 26, 2019, a technical writing contract was awarded to the Woman Owned Small Business (WOSB), CatMedia.
- CatMedia's services will be used to support the development of the official reports produced under the Hurricane Maria Program including the National Construction Safety Team Act Report (NCSTAR).
- CatMedia is capable of producing professional graphics and text, and provides editing services.
- The contract has a period of performance of three years and can be extended if necessary to provide continued support.

Contract Management

Translation Support Contract

- On April 29, 2019, a translation and interpretation task order was awarded to Lazar Translation Services.
- Lazar's services will be used to interpret live conversations over the telephone, while on site in Puerto Rico, and translate documents that are deemed to be pertinent to the investigation.
- Examples of the documents that are to be translated may include, but are not limited to the following:
 - City and/or building design and/or construction documents/plans
 - Construction-related records, such as building permits and building inspection reports
 - Plans/procedures for emergency communication, disaster response, shelter design
 - Codes and standards documentation
 - Building damage documentation and/or records, insurance claims, etc.
- The contract has a period of performance of three years and can be extended if necessary to provide continued support.

Contract Management

Communication and Outreach Support

- On February 13, 2019, a task order was awarded to Strativia for technical strategic planning, coordination, outreach, and stakeholder engagement support for the NIST Hurricane Maria Program.
- Thus far, this contractor has provided support for the development of the stakeholder engagement strategy and communications plan which is being used as guidance for interactions with the Puerto Rico public and officials.
- The contractor will also draft multiple messaging and outreach documents that have been included in the stakeholder engagement strategy and communications plan.

Contract Management

- As a result of this communication strategy on July 23-26, 2019, the Team held individual meetings with the following high-level officials from Puerto Rico government departments and agencies in San Juan:
 - Economic Development and Commerce Secretary;
 - Education Secretary;
 - Health Secretary;
 - Transportation and Public Works Secretary;
 - Telecommunications Regulatory Board President;
 - Central Office for Recovery, Reconstruction and Resiliency Deputy Director;
 - Puerto Rico Aqueduct and Sewer Authority Vice President of Strategic and Corporate Planning



Members of NIST's Hurricane Maria study team meet with the Secretary of the Department of Health of Puerto Rico, Dr. Rafael Rodriguez-Mercado, on July 24, 2019 (Credit: NIST)

Contract Management

- In order to properly monitor the progress of contractors, the contracts supporting the Hurricane Maria effort include a requirement for monthly status updates.
- These status reports will be used to communicate the status of each project, monitor the spending rates, and provide a written progress update.
- They will also indicate any future concerns that can be addressed early and document the mitigation strategy for any risks identified.

CONTRACT PROJECT STATUS REPORT				
REPORT DATE	PROJECT NAME	PREPARED BY		
Date	Project	Name		
Status Summary				
Provide an overall summary of the project's summary in this section. Include any risks or concerns that may cause a delay in schedule or result in increased costs.				
Project Overview				
TASK	% DONE	DUE DATE	NOTES	
Budget Overview				
TASK	\$ SPENT	% OF TOTAL	ON TRACK?	NOTES
Risk and Issue History				
ISSUE	SEVERITY (LOW, MED, HIGH)		STATUS (RESOLVED, IN PROGRESS ETC.)	
Risk Mitigation Strategy				
Use this space to provide any information on risk mitigation strategies that have been put in place or will be put in place to address any identified risks. Any other pertinent information regarding the project should also be listed here (e.g. upcoming dates).				
Changes to Project Work Plan				
Use this section to document changes to the project work plan that have been agreed upon. This allows the government and contractor to keep track of changes that have been made and the purpose of the change.				

Project Management

Background:

- Because of the importance of this investigation and study, project management, cost management, and effective communication of investigation status are a high priority.
- We will need to continuously track and manage our performance and monitor the dependent milestones to help clearly indicate our status and identify any risks so that they can be addressed as early as possible.

Objective:

- To track and manage our performance and progress from a holistic perspective and monitor the interdependent milestones to help clearly indicate our status and identify any risks so that they can be addressed as early as possible.

Project Management

- Project management software is being utilized in order to accurately track the schedule and cost of each project.
- An internal multi-year plan has been developed and is being updated appropriately which includes the timeframes for deliverables which are pivotal to the investigation and study.
- As the Program continues to progress the timeline will be updated to accommodate any slippage of schedule or deliverables completed early.

Thank you!

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