Presented at the FIG Working Week 2019, April 22-26, 2019 in Hanoi, Vietnam

"Geospatial Information for a Smarter Life and Environmental Resilience"
2,975 Hurricane Maria: The Role of Land Surveyors in Infrastructure Resiliency
Maria’s deluge on Puerto Rico

As winds fade, flooding becomes a danger

By Laris Karklis and Tim Meko

Precipitation amount from Sept. 19-21

37.90 in.
FIG WORKING WEEK 2019
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After the Storm

- 100% loss of electrical power.
- 95% loss of mobile phone signal, therefore no communications.
- 100% loss of running water.
- International Airport closed because Main Radar was lost and had no power (for almost two weeks flights were made visual).
- Roads blocked due to fallen electrical poles and trees, preventing reaching out to remote areas and preventing the distribution of goods.
Critical Infrastructure severely damaged
LAND SURVEYING TECHNIQUES DURING INTERIM RISK REDUCTION MEASURES
Conclusion

• Due to climate change, the frequency and intensity of natural disasters will continue to increase.
• Critical infrastructure will be severely damaged. Immediate action must be taken to ensure the lives of thousands of people.
• Improvisation should not be the principal approach of responding to this type of emergency. Hurricane Maria was able to prove that our nation was not prepared for this type of disastrous event.
• Land Surveyors must play a protagonist role in community resiliency plans to ensure scientific approaches are implemented.