# Hurricane Impacts

November 9, 2017

# Looking to the Future

- **HFIP Strategic Plan:**
  - Weather Act 2017 (Section 104):
  - *"…incorporating risk communication research to create more effective watch and warning products.."*

# Discussion Points

- Focusing on a Probabilistic Framework
- Human Factors and its Relevance
- Importance of Testbeds
- Societal Impact/Outcome Performance Metrics
- Successful Research-to-Operations

# Discussion Points
# Probabilistic Framework

**What is FACETs and why is it a good framework?**

- **Linking the probabilistic process with the development of the message.**
- **How do we effectively estimate and convey uncertainty?**
- **What on the technical side is needed to produce products that are relevant?**
- **How do we bring the physical and social scientists together to iterate from the BEGINNING…and continuously.**

# Discussion Points
# Human Factors

**What is "human factors" and why is it important?**

- **A scientific discipline which examines human behavior and capabilities in order to find the best ways to design products, equipment and systems for maximum effective use by humans….in our case, the human forecaster!**
- **We must address their need, their understanding of probabilities, and their interface with the products and tools to communicate the risk and uncertainty.**

# Discussion Points
# Testbeds

**How do we know the products developed with SBE science will work in an operational setting?**

- **Must test the improved products in a testbed or operational proving ground**
- **No set testbed for social science, however, Hazardous Weather Testbed is a good case study. How about the Joint Hurricane Testbed?**

# Discussion Points
# Performance Metrics

**How do we know the products developed with SBE science make a difference?**

- **Must develop metrics that relate to societal outcomes**
- **Important in the development of a feedback loop (R2O and O2R)**

# Discussion Points
# Successful Research to Operations

**How do we effectively transition research into operations?**

- **Focus on the Readiness Transition Levels (Levels 4-9) – Be specific in what must be done.**
- **Identify intentional parties on both the research and operational side.**