Uncertain, long-term   Characterized, short-term

Future emission and climate forcing

Sea ice and oceanic heat circulation

Projected tropic storm of likely categories

Observed tropic storm: grade, pressure, radius, etc.

SLR

Path, landing, and wind profile

SST anomaly occurrence and location

Storm surge modeling

Storm surge model updating

Flood hydrologic modeling

Vulnerability Assessment
SLOSH modeling for future emission scenarios

Storm Surge Adaptation
SLOSH modeling at local basin scale for planning

Mitigation Actions
ARCIRC/SLOSH modeling for planning and response

SLR and MOMs for vulnerability analysis, and adaptation planning

Hydrological impacts for MEOWs, MOMs at given hurricane grades and paths

Emergency plan adjustment, activation and impact mitigation

Impact probability envelop; Probable impact scale; Vulnerable areas and assets

Local storm surge and flooding modeling; Probability analysis; Hydrological modeling.

Forecast-updating and impact assessment for evacuation and emergency response.