

Marine Weather Decision Support in a Complex Coastal Environment Kennard B. Kasper and Christopher Rothwell

NOAA/National Weather Service, Key West, Florida



Complex coastal bathymetry and associated marine hazards (shallow water waves) SHOALING **GULF STREAM**

The Florida Keys are home to a vast, diverse, and vulnerable marine community. Members of this community conduct daily, weather-sensitive, and inherently high-risk operations across the domain of maritime occupations. Such operations require decisions rendered which consider the impacts of weather on human safety, maritime security, environmental protection, and economic interests. Decisions and actions by maritime agencies necessarily consider marine weather information from the National Weather Service. Primary meteorological hazards in the Florida Keys and across the adjacent coastal waters include gale-force winds, thunderstorms, waterspouts, and hurricanes. Also, non-meteorological hazards and events such as oil spills and vessel groundings increasingly require action from the emergency response community, and in the Florida Keys, much of this action takes the form of weather-sensitive, high-risk maritime operations. Florida Keys National Weather Service meteorologists recently increased efforts to connect with core partners and stakeholders in the local marine community, to understand their operations and weather information needs, and provide necessary marine meteorological data, information, and knowledge to support critical decisions. A summary of relationship-building and marine decision support activities will be presented in the context of Florida Keys customer operations. A description and explanation of the importance of both applied science and focused service outreach also will be offered.

Decision Support Services NOAA Ship Nancy Foster Research Cruis













