East Central Florida HFR Array

George A. Maul
Florida Institute of Technology
Objective and Approach

Objective
• Filling the HFR gap between Miami and Savannah
• Operate at 13.5 MHz
• Collaborate with U. Miami in establishing stations at Patrick Air Force Base and at Sebastian Inlet State Park
• Operate 24/7 and provide current velocity, wind speed, and wave height to users

SECOORA Focus Area
• Issue/focus area that work most impacts
  • Marine Operations
  • Coastal Hazards
  • USAF 920th Rescue Wing training operations
  • Current and Wave Variability over Oculina Bank HAPC

• Stakeholders:
  • Patrick Air Force Base
  • Sebastian Inlet State Park
  • Port Canaveral Operations
  • Oculina Bank HAPC regulators
  • USCG Search And Rescue
  • Yachting and fishing
  • NWS weather forecasters
Accomplishments

• Accomplishments in the last year:
  • SECOORA contract to Florida Tech executed
  • U. Miami subcontract executed
  • Reconnaissance mission to NASA Kennedy Space Center
  • Reconnaissance mission to Sebastian Inlet State Park (SISP Director approved and forwarded recommendation to State DNR)
  • WERA contracted by SECOORA to build HFR
  • Eau Gallie Yacht Club presentation

• Site Survey Authorization for East Central Florida High Frequency Radar obtained from USAF
  • USAF Strategic Basing Panel (SBP) approves HFR site survey
  • PAFB Site Survey to be conducted in June 2019
  • If approved by SBP, still requires Secretary of USAF approval (Pentagon level) – anticipated date: November 2019
Impact

• Project’s impact
  • Highly complex surface current, wind, and waves, at 15 minute temporal resolution, mapped for first time.
  • Data freely provided to maritime and fishing interests.
  • Co-located coverage with NOAA buoy for spacecraft recovery.
  • Oculina Bank surveillance.