



Demos of Equipment and Technical Procedures Lighting Talks



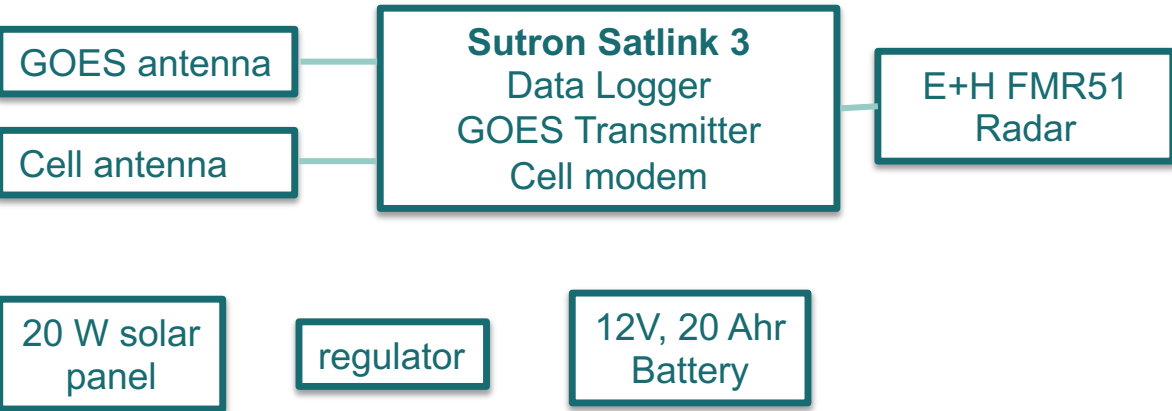
Water Levels in the Southeast
June 13-15, 2023

CO-OPS Simplified Water Level System

- CO-OPS has developed a low cost water level system to support applications where a full NWLON system is not necessary or not feasible to install.
- System design is based on 'scaled down' version of an NWLON station
- Employs the following standard NWLON features
 - radar water level sensor
 - sampling and processing scheme for 6 min avg water level series
 - data format for cell/IP modem polling and GOES encode/transmit/decode
- Potential to add hourly non-directional waves



Sensor Choice



System Component	Make/Model	Approximate Cost
Water level sensor	E+H FMR51 Radar	\$4,000
Sensor mounting hardware	N/A	\$1,000
GOES transmitter/logger	Sutron Satlink 3	\$3,250
GOES antenna	FTS	\$400
IP modem	Sutron Cellular-MOD-1	\$900
IP antenna	Digital Antenna, 1273-PW	\$190
Battery	Power Sonic, 20Ahr, 12V	\$80
Solar panel	20W	\$100
Solar regulator	Mr Solar, ASE	\$50
Electronics enclosure	Hammond	\$300
Electronics enclosure and mounting hardware	N/A	\$200
Cables and misc wiring	N/A	\$500
	Total	\$10,970

Field Testing



Coastal Studies Institute, Wanchese, NC



Gulf Breeze, FL

