



COASTAL RESOURCES DIVISION

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COMMISSIONER

DOUG HAYMANS
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February 28, 2025

Jared Lopes
Savannah District USACE
Jared.M.Lopes@usace.army.mil

RE: CZM Consistency Determination: Savannah River Pressure Sensor Deployment on USCG ATONs, Offshore Tybee Island, and Tybee Shoreline, 2025 Enhanced Ship Wake Study Monitoring

Dear Mr. Lopes:

Staff of the Georgia Coastal Management Program (GCMP, the Program) has reviewed your February 5, 2025 request for ERDC (U.S. Army Engineer Research and Development Center) to deploy instruments along the Savannah River and on Tybee's North Beach area. Commercial vessels transiting the Savannah entrance channel intermittently generate large wake events at Tybee Island, creating a potential hazard for beachgoers. The relationship between vessel dimensions, operating conditions, wake height, and drawdown magnitude is unclear. ERDC positioned pressure sensors at two offshore stations and Tybee beach and used AIS (automatic identification system) to identify vessel passing in 2021 to collect data for the Ship-Induced Waves at Tybee Island, Georgia study (ERDC/CHL TR-22-21). The study identified trends to guide future research, including this proposal to enhance data collection through the placement of additional instruments from March 1, 2025 through May 30, 2025.

USACE and ERDC propose to place pressure sensors on USCG ATONs (aids to navigation) between the Savannah Entrance Channel and the Talmadge Bridge that may include cameras; pressure sensors below mean high water on Tybee's North Beach; offshore sensors on the North and South Jetties; sensors offshore of Tybee along the bottom of the river; and a Telehandler mobile tower with cameras parked near the North Beach sand dunes. Refer to Enclosure for more detailed information.

The Program concurs that temporary placement of these scientific measuring devices as described is consistent with the enforceable policies of the GCMP. Feel free to contact Kelie Moore or me if we can be of additional assistance.

Sincerely,

Doug Haymans, Director

DH/km

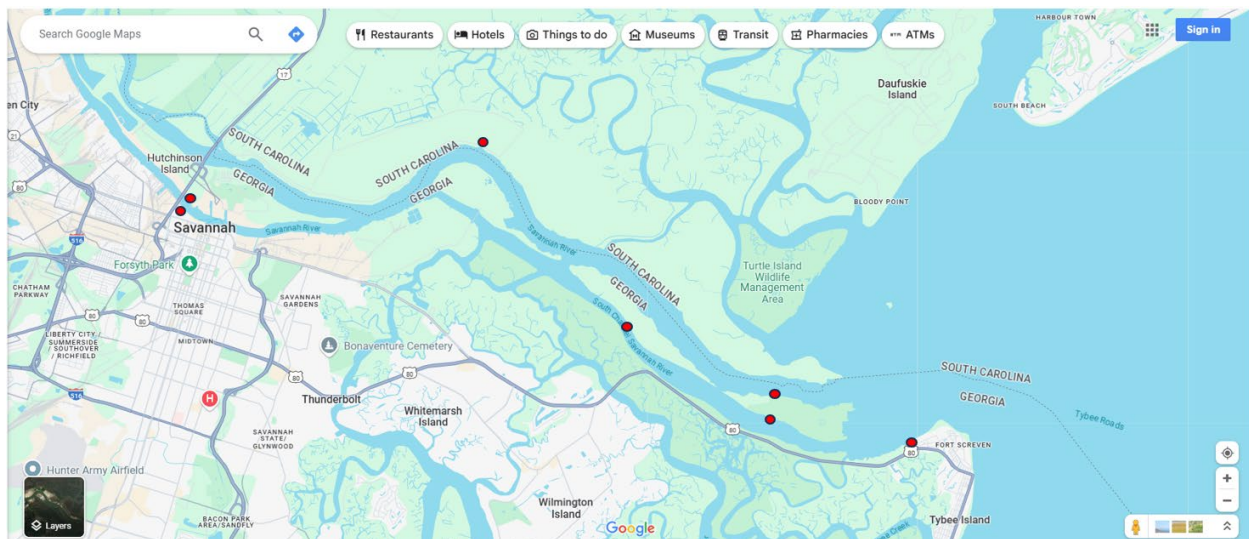
Ref: FDC20250007

Enclosure

Scientific Equipment to be Deployed on USCG ATONs:

1. The instruments proposed for deployment on up to eleven ATONs are RBR pressure sensors (self-contained, internally recording). The probes weigh approximately 3 lbs each and will be mounted below MLLW using an aluminum mounting bracket (6 ft by 4 in wide) weighing approximately 15lb. No other hardware will be required. Total weight for each ATON probe deployment would be 1 mounting bracket (15 lbs), and two RBR pressure sensors (3+3lbs) for a total weight of 21lbs. Included are two pictures showing the size of the RBR pressure sensors.
2. Nondestructive installation techniques will be utilized to temporarily deploy and secure all scientific equipment to the USCG platforms.
3. It is unlikely temporarily deployed equipment would be placed on all of the ATONS/platforms identified with RBR pressure sensors.
4. The goal deployment timeframe is 1-March through 30-May.

ATON Name	Latitude	Longitude	LLNR (Light List Number)
Savannah River North Jetty Light	32.0413942°N	80.8491878°W	4720
Savannah River South Jetty Light	32.0346301°N	80.8511006°W	4725
Tybee Knoll Cut Range Front Light	32.0333556°N	80.8984512°W	4710
Long Island Crossing Lower Range Rear Light	32.0301826°N	80.9141473°W	4795
New Channel Range Rear Light	32.0409098°N	80.9384764°W	4775
South Channel Daybeacon A8	32.0859812°N	81.0081956°W	35940
The Bight Channel Light 44	32.1005062°N	80.9991123°W	4920
The Bight Channel Light 46	32.1026165°N	81.0043084°W	4930
The Bight Channel Light 47	32.0996206°N	81.0089220°W	4935
The Bight Channel Light 48	32.1029762°N	81.0089037°W	4940
Fort Jackson Lower Range Front Light	32.1021279°N	81.0126251°W	4945



Scientific equipment to be deployed on the northern shoreline and offshore of Tybee Island:

North Beach

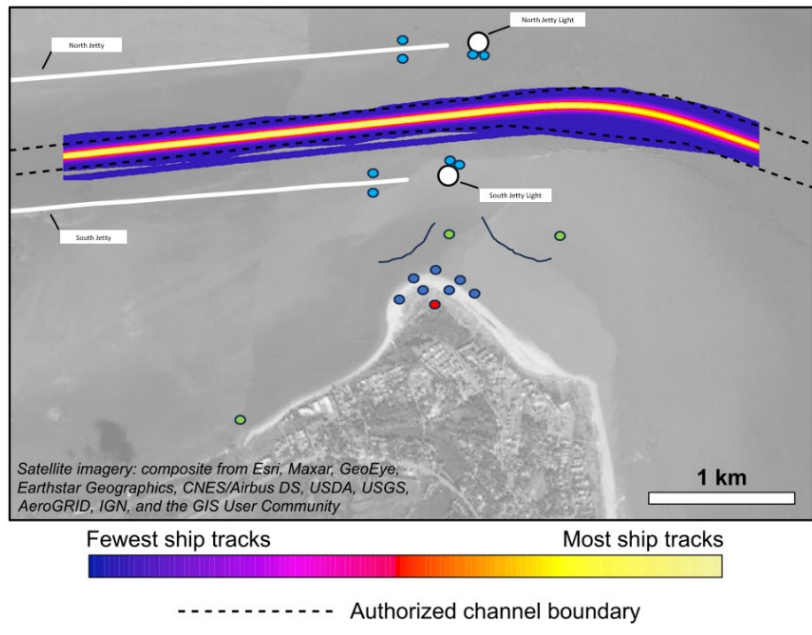
- 7 **pressure sensors**, 5 with ADVs
- 3 **cameras**, mounted on a telehandler mobile tower located above MHW in Dune: 2 - 60 degree facing beach, 1 - 15 degree facing the ship channel.

Offshore surface

- Pressure sensors mounted to USGS ATON (2x North Jetty Light, 2x South Jetty Light)
- South Jetty (1 inside, 1 outside)
- North Jetty (1 inside, 1 outside)

Offshore bottom

- 1 AWAC/Signature in south channel measuring water column currents and surface track.
- 1 offshore of Tybee Point
- 1 offshore of Tybee Point closer to open coast edge



The telehandler, a telescoping forklift, will be located on the dune edge at approximately 32.0287 x -80.8521 and driven directly to the placement location from the Polk Street Beach Access. This dune-edge location was selected for its minimal slope and vegetation for ease of access while providing the proper vantage point/location for the cameras. It will be placed onto a containment tarp/berm for the duration of deployment and properly secured.

