

# BIG IDEAS OUT OF THE BLUE

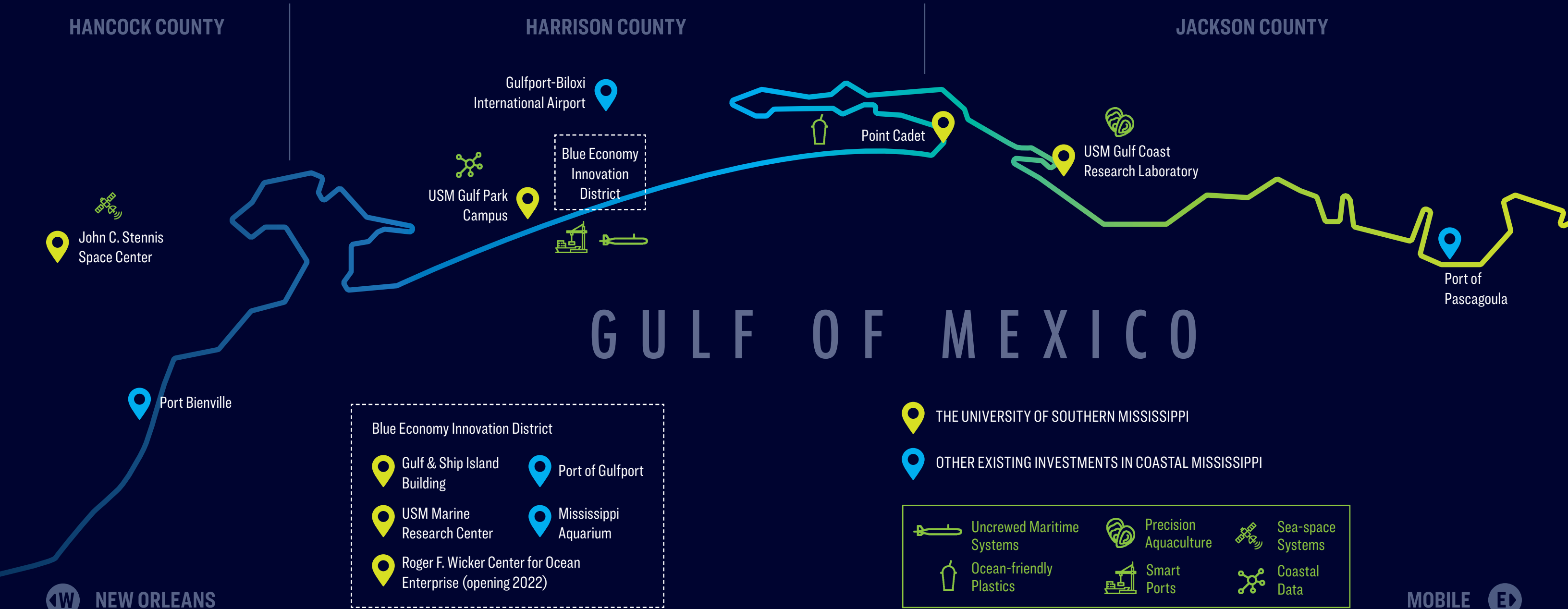


# 359 Miles of Opportunity

The Mississippi Gulf Coast is primed to take the international stage.

**THE HISTORY OF THE UNIVERSITY OF SOUTHERN MISSISSIPPI (USM)**  
on the Gulf Coast goes back to 1947. USM has been strategically investing in coast-wide maritime infrastructure that positions coastal Mississippi to advance technology in an initial set of six blue tech innovation clusters. Today, USM is charting the path forward by leading the region to the next chapter of growth focused on discoveries, advanced innovations, and new practices for blue economy commerce.

The Gulf Blue<sup>SM</sup> initiative pools the knowledge of research scientists, federal agencies, industry partners, and entrepreneurs to further develop our region into a global leader in blue technology. Our history, geography, and maritime resources position the Gulf Coast to lead the development of world-changing innovation that will emerge out of the blue in Mississippi.



Shoreline Mileage Source: NOAA Office for Coastal Management

# Innovation Channels



## ROGER F. WICKER CENTER FOR OCEAN ENTERPRISE

USM's Roger F. Wicker Center for Ocean Enterprise (opening 2022) is a research and development partnership program focused on uncrewed maritime systems and blue technology innovation. The facility hosts the co-location of federal and industry partners with The University of Southern Mississippi in 62,500 square feet of laboratories, training, and conference space. The complex includes deep and shallow water access for oceanographic research vessels.



## THE UNIVERSITY OF SOUTHERN MISSISSIPPI MARINE RESEARCH CENTER

USM's Marine Research Center features 18,000 square feet of classrooms, technology laboratories, a fabrication shop, and a deep test tank for university research in uncrewed maritime systems. Research scientists utilize the facility to plan and prepare for research expeditions on USM's 135-foot research vessel, the R/V *Point Sur*, and the 199-foot R/V *Gilbert R. Mason* (launching 2023).

As part of the Gulf Blue<sup>SM</sup> initiative, we coordinate with scientists, engineers, educators, businesses, entrepreneurs, and visionaries across the Mississippi Gulf Coast to aid in the acceleration of both economic growth and innovation discovery.



## THAD COCHRAN MARINE AQUACULTURE CENTER

The Thad Cochran Marine Aquaculture Center is the hub of the marine aquaculture program at The University of Southern Mississippi's Gulf Coast Research Laboratory. The world-renowned center provides access to critical infrastructure and aquaculture experts to help alleviate the bottlenecks that constrain the production of marine species and promote sustainable marine aquaculture.



## THE UNIVERSITY OF SOUTHERN MISSISSIPPI GULF PARK CAMPUS

USM's beautiful beachfront Gulf Park campus sits on 52 acres in Long Beach, Mississippi. The campus serves as the hub for academic instruction in key fields that support the coastal community's unique education and research needs. USM offers innovative academic programs to meet the evolving needs of coastal maritime sectors, responding to local, regional, national and international opportunities.



The historic Gulf & Ship Island Building is the centerpiece of the Gulf Blue<sup>SM</sup> initiative and features 24-hour connected space for blue tech innovators. Downtown Gulfport provides convenient access to the Port of Gulfport, rail, interstates, and the Gulfport-Biloxi International Airport. USM's presence at the Gulf & Ship Island Building is managed by the USM Research Foundation.

## GULF BLUE ACCELERATOR<sup>SM</sup>

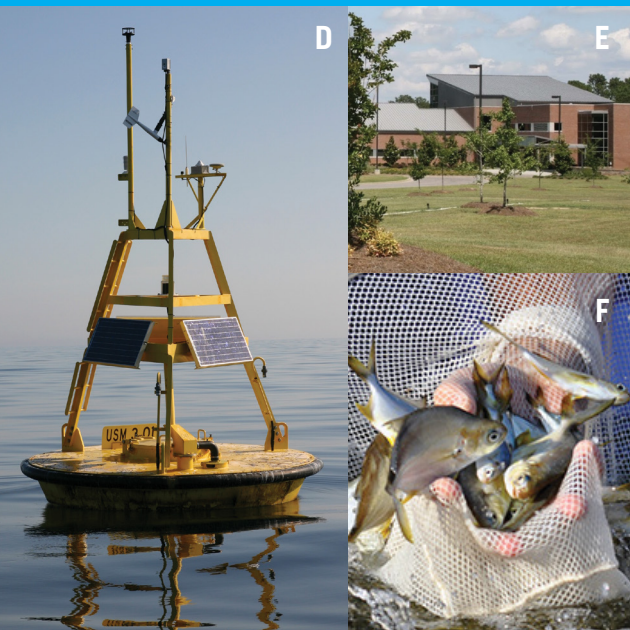
The Gulf Blue<sup>SM</sup> Accelerator Program (launching in 2022) connects blue tech startups with program management, infrastructure, and funding to shorten development time and catalyze economic growth.





## THE BIG IDEAS OF THE BLUE ECONOMY

- Capitalize on existing, world-class ocean research capabilities
- Advance innovations in uncrewed maritime systems
- Connect entrepreneurs and startups with government agencies and capital investments
- Promote the unique qualities of the Mississippi Gulf Coast to encourage relocation of talent and industry
- Incubate development of sustainable technologies in plastics and aquaculture
- Form a cooperative of business, government, and education to accelerate innovation in ocean-related technologies



### HYDROGRAPHIC SCIENCE RESEARCH CENTER

**[A: Scientists launching uncrewed maritime system]**

USM's Hydrographic Science Research Center develops and broadens hydrography applications, ocean mapping, and navigation technology. The Center supports addressing government and industry clients' needs for coastal and ocean navigation, information about the ocean floor and ocean processes.

### GULF COAST GEOSPATIAL CENTER

**[B: Researchers take high-precision GPS elevation measurements of shoreline and marsh grasses]**

The Gulf Coast Geospatial Center (GCGC) provides accurate and up-to-date geodetic positioning for the state of Mississippi. It leads NOAA NGS' five-State Geospatial Modeling Program that spans the Southeastern United States. Coupling GPS (global positioning systems), remote sensing, and geographic information technologies, research at the GCGC provides insight into advancing the understanding of GPS positioning and Mississippi's mainland and near-shore coastal environmental and geological processes.

### R/V GILBERT R. MASON (LAUNCHING 2023)

**[C: NSF Oceanographic Research Vessel R/V Gilbert R. Mason]**

The National Science Foundation selected the Gulf-Caribbean Oceanographic Consortium, cooperatively led by The University of Southern Mississippi and the Louisiana Universities Marine Consortium, to operate the R/V *Gilbert R. Mason* to expand research in the Gulf of Mexico, Caribbean Sea and Atlantic Ocean. Scientists will use the *Mason* to study environmental change, the global hydrologic cycle, biodiversity in the ocean, and more.

### CUBENET

**[D: Gulf deployed buoy equipped with sensor array]**

USM can deploy a relocatable instrumented field site, littoral to deep water, to test, evaluate, and demonstrate uncrewed systems over a broad range of oceanographic, environmental and acoustic channel propagation variabilities. The capability to create a four-dimensional ocean cube supports comprehensive understanding and predictive modeling of the surface and subsurface environments in the northern Gulf of Mexico.

### MISSISSIPPI POLYMER INSTITUTE

**[E: USM Innovation and Commercialization Park and Accelerator]**

The Mississippi Polymer Institute is focused on fostering business growth in advanced materials by providing access to workforce development, molecular analysis, performance testing and product development.

### CENTER FOR FISHERIES RESEARCH AND DEVELOPMENT

**[F: Fisheries scientists conduct population surveys]**

The Center for Fisheries Research and Development operates at USM's Gulf Coast Research Laboratory in Ocean Springs. Research scientists develop and conduct research that informs state, federal and community partners for critical decision making to support sustainable fisheries and habitats.

Supporting smart  
new companies and  
attracting a highly  
technical workforce  
will bring big ideas  
out of the blue.

**Big Ideas Out  
of the Blue**



**FOR MORE INFORMATION**

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**Gulf Blue<sup>SM</sup>**

Gulf & Ship Island Building  
2605 13th Street  
Gulfport, MS 39501  
228-896-2824  
[info@gulfblue.org](mailto:info@gulfblue.org)

[gulfblue.org](http://gulfblue.org)