WOODS HOLE OCEANOGRAPHIC INSTITUTE

Center for Marine Robotics – 5th Annual CMR Entrepreneur Showcase

Donna Lanzetta:
CEO and Founder of Manna Fish Farms, Inc.
The United Nations advises: we must Double Aquaculture by 2030!
Aquaculture

Federal Permitting Process

Aquaculture
The Offshore Marine Aquaculture Facility is proposed for 8 miles off the coast of eastern Long Island (Shinnecock Inlet)

1.5 square miles
Offshore Farm: Gulf of Mexico

- 23 miles off Pensacola, FL
- Depths of 150 ft.
- Intended species: Red Drum, Tripletail, or Almaco Jack
- 123 acres
- Permitting in collaboration with Dr. Kelly Lucas of the University of Southern Mississippi- Ocean Springs
FEED CONVERSION RATIO
Estimated feed required to gain one pound of body mass.\textsuperscript{5}

- **FARM-RAISED FISH**: 1.1 Pounds
- **BROILER CHICKENS**: 1.7 Pounds
- **HOGS**: 2.9 Pounds
- **CATTLE**: 6.8 Pounds

As per aquacultureassociation.org
Automated Feed System – Before and After
Getting ready to go off shore
Submersible Cage Technology: StormSafe
Scallop farming methods
Autonomous Underwater Vehicles (AUVs)

Capabilities
- Side Scan Sonar
- Sub-Bottom Profiler
- Camera
- CTD
- ADCP
- GPS
- Indium, Freewave, & Acoustic Comms

Over a Decade of Full Ocean Depth AUV Expertise

[Image of various AUVs and capabilities]
New technology available to support the sustainable production of seafood
Research and Education

Manna Ocean Foundation
Thank you for your attention!

Charting the course to operate the first open ocean finfish farm on the East Coast of the United States!