Collaboration, Creativity, Compromise, and Conclusion: U.S. Coast Guard Modifies the Port of Miami Anchorage Area

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U.S. Coast Guard
Marine Protected Areas
Sustaining benefits | Meeting challenges | Seizing opportunities
Marine Protected Areas

6 Paper Parks, Paper Tigers, and Paper Trails | Marine protected area designation and enforcement by Steven Tucker

14 Guardians of the Sea | Protecting the oceans together by Emma Skelley and Jennifer Damian

18 Marine Protected Area Networks | Tools to promote resilience of Arctic marine ecosystems by Lisa Speer, Lauren Wenzel, Elizabeth McLanahan, Laura Strickler, and Martin Sommerkorn

25 The Future of Marine Protected Areas in the Northern Latitudes | Marine protection in a changing Arctic by LCDR Courtney Sergent

30 Expanding the Reach of the Monitor National Marine Sanctuary | Protecting more wrecks and increasing public awareness by CDR Kevin Saunders, LCDR Elizabeth Buendia, and LCDR Patricia Bennett

Applications and Tools

34 Collaboration, Creativity, Compromise, and Conclusion | U.S. Coast Guard modifies the Port of Miami anchorage area by Paul D. Lehmann

40 Detecting Illegal Fishing Activity with Acoustic Technology | Passive acoustic methods help USCG fight illegal fishing by Hady Salloum, Ph.D., Alexander Sutin, Ph.D., and Alexander Pollara, Ph.D.

45 How To Improve Your "Climate-Smart IQ" Using the Adaptation Design Tool by David A. Gibbs, Jordan M. West, Ph.D., and Britt A. Parker

Economics, Policy, and Law

50 Fathoms Deep in Salt Water | The wealth of ocean parks by Elizabeth Moore

54 Rethinking MARPOL Enforcement by CDR John T. Dewey

58 Reducing Noise from Large Commercial Ships | Progress and partnerships by Brandon L. Southall, Ph.D., Leila Hatch, Ph.D., Amy Scholik-Scholmer, Ph.D., Trisha Bergmann, Ph.D., Michael Jasny, Kathy Metcalf, Lindy Weilgart, Ph.D., Andrew J. Wright, Ph.D., and M.E. Perera

66 Strengthening Environmental Rule-of-Law to Reinforce Marine Protected Area Stewardship by Xiao Recio-Blanco

72 Operation Kohola Guardian, 2017 | Maui, Hawaii by Steven Tucker

73 A History of the New England Marine Resources Trinity | Fisheries, sanctuaries, and monuments by CDR Eric Johnson

Living Marine Resources

77 SeaSketch for Safe Passage | Collaborative mapping helps conflicting marine interests work toward shared goals by Grace Goldberg, Sean Hastings, and Will McClintock, Ph.D.

82 Living With Orcas | Protecting a vital resource—Puget Sound southern resident killer whales by Brian Corrigan
merican cartoonist Rube Goldberg became well known for depicting complicated devices that performed simple tasks in indirect, convoluted ways. While federal rulemaking can appear to be like a Rube Goldberg machine to the public and participants alike, if done correctly, it is a well-choreographed, thoughtful process with opportunities for public input.

The Port of Miami anchorage area was reduced into two smaller anchorage areas in July 2017 as a result of a multi-year process with no specific funding mechanism. Since there were no dedicated funds and protected coral species were present, a group of representatives from non-profits, industry and associated agencies, and the broader public had to think creatively and ultimately compromise on a solution. While it wasn’t easy, and flexibility was necessary, the newly designed anchorage areas protect more than 600 acres of coral reef without negatively impacting the reasonable needs of navigation.

Winston Churchill was credited with saying, “We have no money—we shall have to think.” This concept perfectly summarizes this project and the challenges we faced.

Background
Miami is a unique city, and while it can be many things to many people, life here has never been dull. In the mid-2000s, the Coast Guard’s Seventh District (D7) was heavily involved with several events of national significance—agency reorganizations, immigration and drug smuggling prosecutions, and implementing improved post-9/11 security protocols, to name a few. D7 was also monitoring the National Oceanic and Atmospheric Administration (NOAA)’s review regarding elkhorn and staghorn corals and whether those species should be protected pursuant to the Endangered Species Act (ESA).

In 2006, elkhorn and staghorn corals were listed as “threatened” pursuant to the ESA, so we evaluated the impacts of that decision on Coast Guard operations as well as on those engaged in maritime transportation. In 2014, five additional species of coral in the D7 area of responsibility were listed as threatened pursuant to the ESA, adding to the complexity of this project.

Without delving too deeply into the nuances of the ESA, a species is considered threatened if it is likely to become an endangered species...
Elkhorn and staghorn corals are of the genus *Acropora*. The most abundant group of corals in the world, *Acropora* once represented the most dominant reef-building species throughout Florida and the Caribbean. They are typically found on shallow-water reefs, live in high-energy zones with a lot of wave action, and are in water temperatures from 66 to 86 degrees Fahrenheit. In sum, the elkhorn and staghorn habitat exists almost everywhere in the southern D7 area of responsibility.

Following the first listing in 2006, and over the next few years, we had several meetings with the Florida Department of Environmental Protection (FDEP) and Nova Southeastern University (NSU) on whether these species and their habitats existed in the Port of Miami Anchorage. Without specific funding to conduct a survey, the FDEP and NSU provided data and identified 700 acres of hard bottom (coral habitat) within the anchorage. In addition, they suggested options to reduce anchoring impacts to coral habitat.

This was just one part of the puzzle, as the Coast Guard, FDEP, and NSU had to study and collect data on how the anchorage was actually being used by vessels. In short, we analyzed anchoring events to ensure safety would not be impacted at the expense of protecting the coral habitat. All involved parties understood that a major marine casualty could have severe impacts on the entire community, which helped set expectations among the group.

This is when we started to flesh out ideas with the Port of Miami pilots, Caribbean cargo vessel operators, and other waterway users. The needs of individual vessels/companies vary considerably, and federal rulemaking requires agencies to review the impacts of their actions through a variety of regulatory mechanisms.

For example, if we were to move the anchorage into deeper water and outside the coral habitat, as suggested by some, the smaller Caribbean vessels would be impacted. They would be required to handle and add more anchor chain, adding considerable weight to the vessels, impacting their operations, and ultimately impacting the communities those vessels serve. This is just one example demonstrating insight into the concerns we had regarding unintended consequences.

Suffice it to say, there are a variety of niche industries and facets that exist in any situation, so collaboration and public outreach is key. We routinely used the mantra “You don’t know what you don’t know” throughout this process and continued to gather more data in order to make thoughtful, sound decisions for all involved.
Seeking Public Input and a Broad Consensus

Since we had enough data and a framework for a reasonable proposal, we turned to industry, the public, and other interested parties for their thoughts. That process began on December 1, 2015, when the Coast Guard published a notice in the Federal Register indicating we were evaluating the Miami Anchorage because of the coral reefs off the Florida coast.

The notice stated that the Coast Guard was evaluating whether to divide the anchorage into two smaller anchorage areas. It also described the information that led to this proposal and provided it in the regulatory docket, both online and in hard copy. We also reached out to potential interested parties through a variety of means to ensure the broadest possible exposure.

Four initial comments were received and addressed in a Notice of Proposed Rulemaking (NPRM) on May 10, 2016. Another four additional comments were received in response to the NPRM.

Two of the comments, one by the local nonprofit Miami Waterkeeper and the other by a private citizen, supported our planned modification of the Miami Anchorage. The third and fourth were submitted by the Biscayne Bay Pilots Association (BBPA).

BBPA requested that the Coast Guard evaluate changes in the proposed anchorage, including shifting the outer anchorage west and shifting the southern boundary of the outer anchorage north. In response to these comments, the Coast Guard discussed the request and how we arrived at the current anchorage configuration with the BBPA. During the meeting, the Coast Guard agreed to shift the western boundary of the outer anchorage about 300 feet to the west to provide more room for large anchoring vessels. This change did not have any effect on the coral reef, since the sea floor in that area is composed of sand.

BBPA also mentioned that the eastern outer anchorage could expose vessels to increased current and waves that could increase the chance a vessel would drag anchor. To properly assess environmental conditions and the risk...
The two areas include an inner western anchorage, ideal for smaller vessels, and an outer eastern anchorage, best for larger vessels. These new anchorages total to a combined area of approximately 1.5 square nautical miles, which will reduce the current anchorage area by close to 3 square nautical miles. The new anchorages save over 600 acres of coral reef from future impacts. Additional benefits include decreased shipping hazards because the new anchorages separate anchoring by vessel size, which ensures adequate depth for the safe anchorage of new, larger, post-Panamax shipping vessels that may now utilize Port Miami.

Several studies by Nova Southeastern University and the Florida Department of Environmental Protection showed that anchorage modification was necessary to reduce reef damage to the ecologically and economically important northern portion of the Florida Reef Tract. Ranging from the northern boundary of Biscayne National Park to the St. Lucie Inlet in Martin County, this reef system provides over 70,000 jobs and $6.4 billion annually to Florida’s economy. It is also home to approximately 45 coral species and over 305 fish species, some of which are listed on the Endangered Species Act. These corals and fish communities attract tourists both regionally and globally for fishing, diving, and other purposes.

As a member of the United States Coral Reef Task Force and the United States National Action Strategy to Conserve Coral Reefs, the USCG has acted to fulfill their commitments to protect, restore, and sustainably use United States coral reef ecosystems.
of an anchor drag, the Coast Guard consulted with the National Weather Service and a Maersk training center. The National Weather Service conducted a study to analyze the previous year’s current in the vicinity of the anchorage and found that the average current in the area of the outer anchorage over the previous year was approximately 1.2 knots, with currents ranging plus or minus half a knot from the mean current 70 percent of the time. This information was provided to the Maersk training center in Svendborg, Denmark. Subject matter experts at the training school indicated the conditions posed no significant hazard, and that captains would have the training and experience to set an anchor in the deeper waters of the outer anchorage.

In addition to the assistance from Maersk and the National Weather Service, the National Marine Fisheries Service Habitat Conservation Division (HCD) and Protected Resources Division (PRD) advised us on what to do with a few small threatened corals located within the anchorage. A permitted individual was able to relocate the small corals at no cost.

We were nearing the home stretch.

Following these events, the Coast Guard again sought public input. Through continued cooperation and research with stakeholders, the USCG amended the original locations and other provisions stated in the NPRM. All comments and changes were then published in a Supplemental Notice of Proposed Rulemaking (SNPRM) on February 22, 2017. There were five written submissions on the SNPRM in support of the proposed rule, citing the desire to protect natural resources while acknowledging perceived minimal impact to industry and commerce.

We completed our economic impact analysis and found the proposal to have no significant economic impact to industry, nor would it negatively affect small businesses. Shortly thereafter, we obtained a biological opinion from the National Marine Fisheries Service Protected Resources Division and finalized our National Environmental Policy Act analysis, finding no significant impact to the human environment.

All the hurdles had been cleared and we were ready to draft a Final Rule.
I think it is safe to say that all members involved with this project came away with a greater awareness of the interconnected world in which we live.

**Conclusion**

On June 19, 2017, the Final Rule was published in the Federal Register. It became effective 30 days later. We submitted nautical chart corrections, updated the Local Notice to Mariners, and coordinated enforcement with FDEP to ensure enforcement actions would be phased in over time. We also directed an Aid to Navigation Cutter to remove two buoys marking the prior anchorage.

**About the author:**

Paul D. Lehmann has served in the U.S. Coast Guard for 23 years in many capacities. Since 2013 he has been the chief of the environmental section for the Seventh District’s Waterways Branch. In addition to his civilian position in Miami, he is a commander and Judge Advocate in the U.S. Coast Guard Reserve.

**Endnotes:**

2. Ibid.
3. Ibid.
4. Ibid.