Notes

NEW PROGRESS REPORT OF UNMAPPED U.S. WATERS

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In support of ocean and coastal mapping strategies, in 2017, the United States designed a method for assessing gaps in bathymetry through a visualization of sounding density. The November 2018 edition of the International Hydrographic Review reported on this analysis (International Hydrographic Organization, 2019).

The United States has continued this analysis, and in March 2020, the United States released its first annual report on the progress made in mapping U.S. waters. Pulling from an analysis of publicly available bathymetry at the IHO's Data Centre for Digital Bathymetry, the report presents the percentage of unmapped U.S. waters by region and shows our progress toward filling these basic bathymetry data gaps with each passing year.

[***Figure 1***] See next page

At the end of 2019, the analysis showed that 54% of U.S. ocean, coastal, and Great Lakes waters (3,592,000 square nautical miles total) remain unmapped. A large percentage of the remaining unmapped areas are in waters deeper than 200 meters; however, further analysis showed that significant effort is needed to fill bathymetry gaps in shallower waters (Westington, et al., 2019).

Although the bathymetry coverage and gap analysis includes modern singlebeam bathymetry, multibeam and LiDAR surveys are the two primary sources of bathymetry desired to fill these gaps. The depth, shape, and composition of the seafloor are foundational data elements that we need to understand in order to explore, sustainably develop, conserve, and manage our coastal and offshore ocean resources. The international Seabed 2030 initiative as well as the newly released National Strategy for Mapping, Exploring, and Characterizing the United States Exclusive Economic Zone make comprehensive ocean mapping a priority for the coming decade (Ocean Science and Technology Subcommittee, 2020). The *Unmapped U.S. Waters report* tracks progress toward these important goals. In support of the integrated ocean and coastal mapping goal to "map once, use many times," all of the data collected in this effort are publicly available to benefit numerous user communities. For the latest status on these efforts, visit https://iocm.noaa.gov/seabed-2030.html.

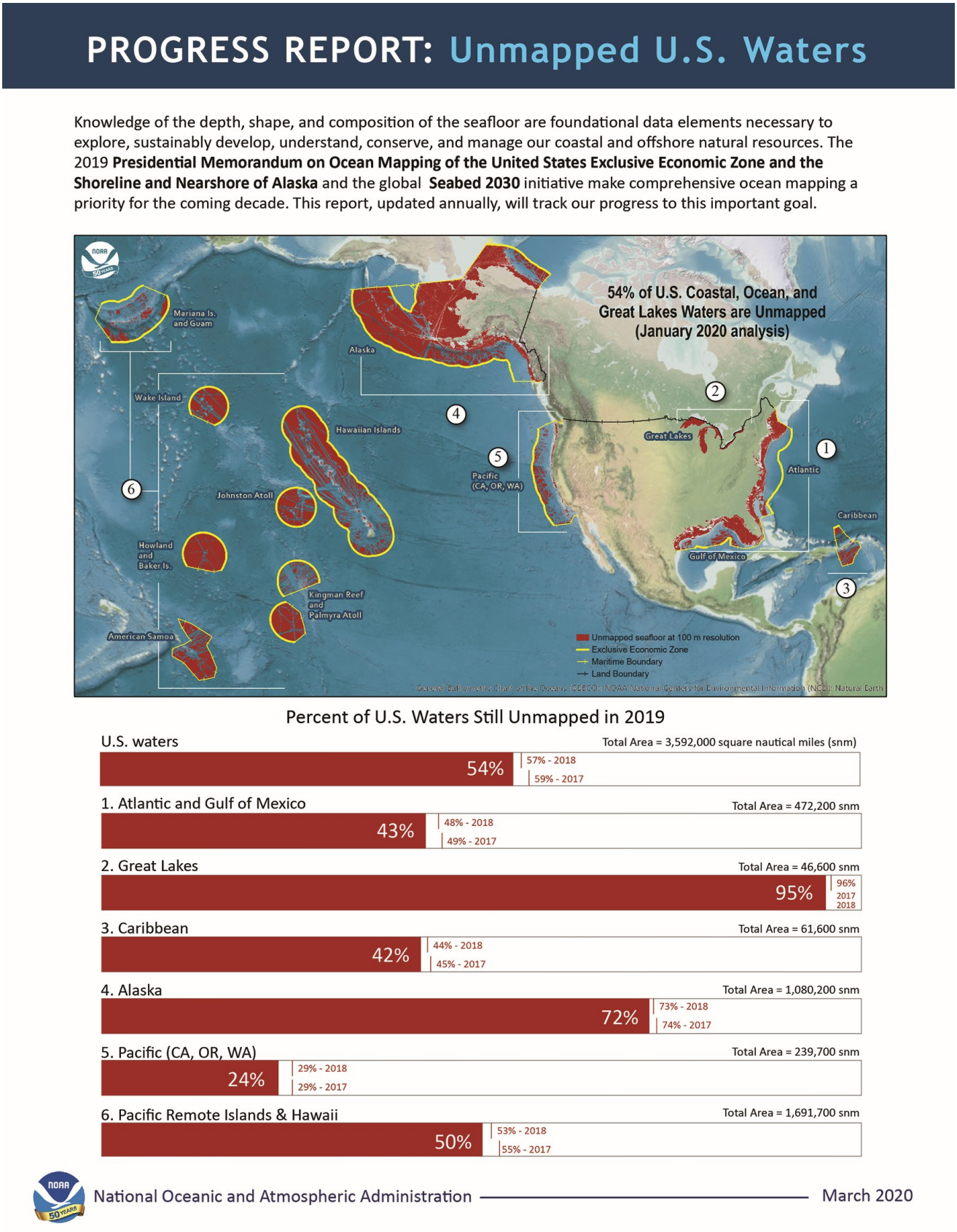

Figure 1 : *The front page of the new Progress Report of Unmapped U.S. Waters, published March 2020.*

References

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- Westington, M., Miller, J.J., Batts, A., and Armstrong, A. (2019). **Creating a Seafloor Mapping Plan to Fill U.S. Gaps by 2030**, *OCEANS 2019 MTS/IEEE SEATTLE*, pp. 1-9, doi: 10.23919/OCEANS40490.2019.8962563.