THE ROLE OF RESEARCH AND TECHNOLOGY IN THE CHANGING OCEAN ECONOMY

FEBRUARY 4-5, 2020 | NATIONAL ACADEMY OF SCIENCES BUILDING | WASHINGTON, DC 20418

Related Reading

No Endorsement Intended or Implied

Related National Academies Publications

- Framing the Challenge of Urban Flooding in the United States (2019)
- Negative Emissions Technologies and Reliable Sequestration: A Research Agenda (2019)
- Atlantic Offshore Renewable Energy Development and Fisheries (2018)
- <u>Sustaining Ocean Observations to</u>
 <u>Understand Future Changes in Earth's</u>
 <u>Climate</u> (2017)
- Coastal Blue Carbon Approaches for Carbon <u>Dioxide Removal and Reliable Sequestration</u> (2017)
- <u>Sea Change: 2015-2025 Decadal Survey of</u> Ocean Sciences (2015)
- Critical Infrastructure for Ocean Research and Societal Needs in 2030 (2011)
- Ocean Acidification: A National Strategy to Meet the Challenges of a Changing Ocean (2010)

Building a Blue Economy

NOAA Report on the U.S. Ocean and Great Lakes Economy

NOAA Office for Coastal Management, 2019

NOAA releases new strategies to apply emerging science and technology

NOAA, November 2019

Maritime Blue Capital Assessment

Department of Commerce for Washington State, September 2019

"Inter-organizational collaboration for energy efficiency in the maritime sector: the case of a database project"

Josefin Borg and Hannes von Knorring Energy Efficiency, November 2019 "<u>Blue finance: Strengthening accountability in blue</u> finance"

Economist World Ocean Initiative, November 1, 2019

"Commitments Announced at Our Oceans 2019 Conference"

U.S. Department of State, October 24, 2019

"Scientists assess storage value in blue carbon ecosystems"

Phys.org, October 2, 2019

"Shipping faces uncertain route to zero-carbon future" Economist, September 18, 2019

"Enthusiasm builds for 'Blue New Deal' after climate town hall"

Rebecca Beitsch The Hill, September 9, 2019

"How renewable energy can fuel the blue economy"
David Hume
Economist, August 9, 2019

"The Dawn of Low-Carbon Shipping" Rebecca Hersher NPR, July 16, 2019

Powering the Blue Economy: Exploring Opportunities for Marine Renewable Energy in Maritime Markets
U.S. Department of Energy, April 2019

MARINER Program

Advanced Research Projects Agency-Energy

Workplan to Identify Priority Research and Technology Needs

Ocean Policy Committee, Ocean Science and Technology Subcommittee, February 2019

"Diving into the blue economy"

UN Department of Economic and Social Affairs, January 15, 2019

Rethinking Innovation for a Sustainable Ocean Economy

OECD, 2019

"Maersk sets net zero co2 emission target by 2050" Maersk, December 4, 2018

THE ROLE OF RESEARCH AND TECHNOLOGY IN THE CHANGING OCEAN ECONOMY

FEBRUARY 4-5, 2020 | NATIONAL ACADEMY OF SCIENCES BUILDING | WASHINGTON, DC 20418

"<u>Achieving and Maintaining Sustainable Fisheries</u>" Jake Rice UN Chronicle

Global Fishing Watch

Ocean Visions

Power of Partnerships

Consortium of Ocean Leadership, 2018

U.S. Offshore Aquaculture: Will We Fish or Cut Bait? Consortium for Ocean Leadership and the Meridian Institute, 2018

The State of the World Fisheries and Aquaculture: Meeting the Sustainable Development Goals Food and Agriculture Organization of the United Nations, 2018

"The new blue economy: A vast oceanic frontier" Rick Spinrad Eos, June 2016

The blue economy: Growth, opportunity and a sustainable ocean economy

Economist Intelligence Unit, 2015

<u>Developing a Blue Economy in China and the United States</u>

Michael Conathan and Scott Moore Center for American Progress, May 2015

Green Payments for Blue Carbon: Economic Incentives for Protecting Threatened Coastal Habitats
Brian Murray, Linwood Pendleton, Aaron Jenkins, and Samantha Sifleet

Nicholas Institute for Environmental Policy Solutions at Duke University, April 2011

Future of Ocean Observation

"MBARI engineers develop a new low-cost way to connect deep-sea instruments"

Monterey Bay Aquarium Research Institute, January 13, 2020

"Ocean microbes: Novel study underscores microbial individuality"

Science Daily, December 12, 2019

"Scientists Develop New Production Method for Seaweed Chemical Used in Brain Research" Scripps Institution of Oceanography, April 30, 2019

"DARPA's Ocean of Things Ripples Across Research Areas"

George Seffers Signal, November 1, 2019

"Saving the Seas: New Technologies to Protect the Ocean"

David Pring-Mill Singularity Hub, December 15, 2018

"The Oceans of Planet Earth: Truly the Last Frontier" The Bridge, Fall 2018 Issue

"Uses and Misuses of Environmental DNA in Biodiversity Science and Conservation" Melania Cristescu and Paul Herbert Annual Review of Ecology, Evolution, and Systematics, July 2018

"Ocean science research is key for a sustainable future"

Martin Visbeck Nature Communications, February 15, 2018

<u>Harnessing the Fourth Industrial Revolution for Oceans</u>

World Economic Forum, November 2017

"20,000 leagues for biotech to explore" Suzanne Elvidge BioPharma Dive, March 27, 2017

NOAA Digital Coast

Ocean Data Alliance

New Economics of Marine Environmental Monitoring Liquid Robotics

Science, Policy, and Security for a Changing Ocean Economy

"Marine Labs on the Water's Edge Are Threatened by Climate Change"

John Schwartz

New York Times, January 7, 2020

THE ROLE OF RESEARCH AND TECHNOLOGY IN THE CHANGING OCEAN ECONOMY

FEBRUARY 4-5, 2020 | NATIONAL ACADEMY OF SCIENCES BUILDING | WASHINGTON, DC 20418

"Empowering America for the Ocean Age: NOAA Marine Education in the 21st Century"

Tim Gallaudet Journal of Ocean Technology, 2019

"Warming Waters, Moving Fish: How Climate Change Is Reshaping Iceland"

Kendra Pierre-Louis

New York Times, December 3, 2019

Summary of the 2019 White House Summit on Partnership in Ocean Science and Technology

White House Office of Science and Technology Policy and Council on Environmental Quality, November 2019

Memorandum on Ocean Mapping of the United States Exclusive Economic Zone and the Shoreline and Nearshore of Alaska

Office of the President, November 19, 2019

"Sea-level rise could flood hundreds of millions more than expected"

James Temple
MIT Technology Review, October 29, 2019

<u>Defending Infrastructure Against Sea Level Rise</u>

Bridget Mintz Testa

American Association of Mechanical Engineers, October 11, 2019

Special Report on the Ocean and Cryosphere in a Changing Climate and Summary for Policymakers Intergovernmental Panel on Climate Change, September 2019

The Northern Northern Border: Homeland Security Priorities in the Arctic

Congressional Testimonies of Michael Sfraga (Wilson Center), Abbie Tingstad (Rand Corporation), Victoria Herrmann (Arctic Institute), and Luke Coffey (Heritage Foundation) before the House Committee on Homeland Security, September 19, 2019

Navigating the New Arctic

National Science Foundation

DOD Needs to Assess Risk and Provide Guidance on Use of Climate Projections in Installation Master Plans and Facilities Designs

Government Accountability Office, June 2019

"The Concrete Jungle Has 578 Miles of Shoreline at Risk"

Ayana Elizabeth Johnson New York Times, May 27, 2019

Charting a New Arctic Ocean

Heather Conley, Matthew Melino, and Whitley Saumweber Center for Strategic and International Studies, May 15, 2019

"U.S. Seafood Consumption"

Gina Shamshak, James Anderson, Frank Asche, Taryn Garlock, and David Love World Aquaculture Society, April 2019

"Can International Law Protect the Arctic from Oil Spills?"

Daria Shapavalova The Arctic Institute, March 26, 2019

"China's Maritime Economic Development: A Review, the Future Trend, and Sustainability Implications" Wai Ming To

Sustainability, December 2018

Executive Order Regarding the Ocean Policy to Advance the Economic, Security, and Environmental Interests of the United States

Office of the President, June 19, 2018

"Why signing the Law of the Sea treaty would mean a tougher U.S. position in the Arctic"

Steve Haycox

Anchorage Daily News, March 22, 2018

<u>Military Expert Panel Report: Sea Level Rise and the U.S. Military's Mission</u>

Military Expert Panel Report: Sea Level Rise and the U.S. Military's Mission, 2nd Edition

Center for Climate and Security, February 2018

China's Arctic Dream

Heather Conley Center for Strategic and International Studies, February 26, 2018

THE ROLE OF RESEARCH AND TECHNOLOGY IN THE CHANGING OCEAN ECONOMY

"Emergence of a global science-business initiative for ocean stewardship"

Henrik Osterblom, Jean-Baptiste Jouffray, Carl Folke, and Johan Rockstrom PNAS, August 22, 2017

Sea-Level Rise and U.S. Coasts: Science and Policy Considerations

Peter Folger and Nicole Carter Congressional Research Service, September 2016

Global Implications of Illegal, Unreported, and Unregulated (IUU) Fishing

National Intelligence Council, September 2016