

## NOAA Hydrographic Services Review Panel

Public Meeting, September 20-22, 2022, The Prince Waikiki Hotel, Honolulu, HI

HSRP webinar link: <https://attendee.gotowebinar.com/register/2670035769139553040>

All topics, times and speakers are subject to change, please consult the latest online agenda.

HSRP meeting documents/website: <https://www.nauticalcharts.noaa.gov/hsrp/>

**Please RSVP:** This is a public meeting and we would appreciate knowing that you will attend for planning needs. To attend in person, advance registration is requested. Federal requirements include wearing a mask indoors if COVID is high. Seating is first come, first served. Please register in advance here:

[https://docs.google.com/forms/d/e/1FAIpQLSe4VObzHaljatxUPYeZp9fYLPJ0JYwBRNvqXAnRQeO6Z\\_xauQ/viewform?vc=0&c=0&w=1](https://docs.google.com/forms/d/e/1FAIpQLSe4VObzHaljatxUPYeZp9fYLPJ0JYwBRNvqXAnRQeO6Z_xauQ/viewform?vc=0&c=0&w=1)

**COVID-19 Requirements:** If COVID is high, masking is required indoors at an in-person meeting, event, or conference hosted by a Federal agency.

**Parking:** There is NO HOST PARKING for \$8, valet is \$11.. Please use one of the two parking machines (either on the Mezzanine level or at the Valet area) and pay before departing.

*\*All times are Hawaii Daylight Time (HDT). Topics, times, and speakers are subject to change.*

Tuesday, Sept 20	Wednesday, Sept 21	Thursday, Sept 22
<ul style="list-style-type: none"> <li>- <b>9am Hawaiian protocol, Opening Session</b></li> <li>- NOAA and NOS leadership, Congressional welcome</li> <li>- <b>10:15am Pacific Partners Session</b></li> <li>Local, State and Federal</li> <li>- <b>11:30am</b></li> </ul>	<ul style="list-style-type: none"> <li>- <b>8:30am Recap on prior day</b></li> <li>- Working Group updates</li> <li>- <b>Stakeholder session: supply chain</b></li> <li>- <b>Public Comment Period</b></li> <li>- <b>12:15 Meeting concludes</b></li> </ul>	<ul style="list-style-type: none"> <li>- <b>8:30am Recap on prior day</b></li> <li>- <b>9:30am Special session:</b></li> <li>Addressing Flooding and SLR Challenges</li> <li>- <b>Public Comment Period</b></li> </ul>
<p><b>12-1:15 LUNCH</b> on your own (HSRP members have a working lunch)</p>	<p>(HSRP members have a working lunch)</p>	<p><b>12-1:15 LUNCH</b> on your own (HSRP members have a working lunch)</p>
<ul style="list-style-type: none"> <li><b>1:15</b> NOS navigation observations and positioning - Tri-Office - Director updates</li> <li><b>2:45 Special session:</b></li> <li>- Pacific Mapping session</li> <li><b>4:15pm Public Comment Period</b></li> <li>- HSRP working group discussions, issue papers</li> <li>- <b>5:30pm Meeting concludes</b></li> </ul>	<p>(HSRP members have a working afternoon)</p>	<ul style="list-style-type: none"> <li>- <b>1-1:10</b> SME updates</li> <li>- <b>1:10-2:30</b> Public Private Partnerships</li> <li>- <b>2:30-4:15pm</b> HSRP working group updates and discussions, issue papers, priorities:</li> <li>- HSRP recommendations and letter</li> <li>- <b>4:15-5pm</b> Meeting wrap up</li> <li>- <b>5:15pm Meeting concludes</b></li> </ul>

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Web Agenda for Public Meeting\*, Oahu, HI, September 20-22, 2022

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### Tuesday, September 20 – Day One

**MEETING VENUE:** The Prince Waikiki Hotel, 100 Holomoana St, Honolulu, HI (Piinaio ballroom)

Times are in Hawaii Time. Topics, times and speakers are subject to change, please consult the latest online agenda.

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**DRESS:** Business casual, Aloha wear

**Uniform:** Summer white or service equivalent

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Morning

### HSRP PUBLIC MEETING DAY 1 CONVENES

**9:00 – 10:15**

- **Julie Thomas**, Chair, NOAA HSRP Federal Advisory Committee
- **Opening Hawaiian cultural protocol**, Kanoë Morishige and Malia Evans, Papahānaumokuākea Marine National Monument, National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA)
- **Governor David Y. Ige**, State of Hawaii
- **U.S. Senator Brian Schatz**, Hawaii (via video)
- **U.S. Representative Ed Case**, Hawaii's First Congressional District (via video)
- **Rear Admiral Benjamin Evans**, Director, Office of Coast Survey (OCS), NOS, NOAA, and HSRP Designated Federal Officer (DFO)
- **Paul M. Scholz**, Deputy Assistant Administrator for Ocean Services and Coastal Zone Management, NOS, NOAA

**10:15 – 10:30**

Break

**10:30 – 11:30** *"Partnerships for the Pacific - Local, State and Federal Perspectives"*

**Moderator:** Julie Thomas and Paul M. Scholz

- **Rear Admiral Michael H. Day**, Commander, 14<sup>th</sup> U.S. Coast Guard District
- **Jose E. Sánchez**, SES, Director of Regional Business, Pacific Ocean Division, U.S. Army Corps of Engineers
- **Joseph D. Martin**, SES, Director, Center for Excellence in Disaster Management and Humanitarian Assistance, U.S. Indo-Pacific Command (PACOM)
- **Bill Thomas**, Senior Advisor for Islands, Indigenous and International Issues, Office of Coastal Management, NOS, NOAA
- **Matthew Gonser**, Executive Director, Office of Climate Change, Sustainability and Resiliency, City and County of Honolulu

**11:30 – 12:00**      ***“Linkages with Traditional and Modern Navigation: Navigating Change from the Deep Sea to Coastal Communities”***

**Moderator and introduction:** **Ray Tanabe**, Director, Pacific Region, National Weather Service NOAA

- **Dr. Haunani Kane**, Assistant Professor, School of Geographical Sciences and Urban Planning, Arizona State University, and member, Polynesian Voyaging Society

We will explore how voyaging traditions and the way we observe while at sea can help to navigate the decisions we make back at home.

**12:00 – 1:30**      **Lunch on your own** (HSRP members have a working lunch)

**1:30 – 2:30**      ***Opportunities and Challenges for the NOS’s Navigation Observations and Positioning Portfolio***

*National Ocean Service’s office directors address navigation services such as the 2022 updates to the National Spatial Reference System (NSRS), datums, Seabed 2030, NOMECS and the Standard Ocean Mapping Protocol, surveying, charting, uncrewed systems, remote sensing and lidar, photogrammetry, positioning, sea level rise and water levels in support of “seamless data.”*

- **Rear Admiral Benjamin Evans**, Director, OCS and HSRP DFO  
*“OCS program updates and outlook.”* Coast Survey’s vision and initiatives for developing data based products and services.
- **Richard Edwing**, Director, Center for Operational Oceanographic Products and Services (CO-OPS)  
*“CO-OPS program updates and outlook.”* A review of recent CO-OPS accomplishments and a look ahead to FY23.
- **Dr. Larry Mayer and Capt. Andy Armstrong**, Co-Directors, NOAA-University of New Hampshire Joint Hydrographic Center, *“Recent EV Nautilus-based USV seafloor mapping operations in the Papahānaumokuākea Marine National Monument.”*
- **Mike Aslaksen**, Chief, Remote Sensing Division, National Geodetic Survey (NGS)  
*“NGS program updates and outlook for the Pacific.”* A review of the National Spatial Reference System, GRAV-D, and the Coastal Mapping Program.

**2:30 – 2:45**      **Break**

**2:45 – 4:15**      *Partnerships and Priorities: Mapping Collaborations in the Pacific Region*

**Moderators and introduction:** **Joyce Miller**, former HSRP Chair; **Lindsay Gee**, HSRP member, Hydrographic and Strategic Development Consultant; and **CDR Briana Hillstrom**, Chief, Hydrographic Surveys Division, OCS, NOS, NOAA

*Across the U.S. Pacific, much of the EEZ is still unmapped. NOAA, federal, academic, commercial partners, and users and stakeholders discuss current and future projects, gaps, and priorities for mapping, LIDAR, data and services. Speakers offer suggestions for how NOAA can direct its finite resources to leverage partnerships and collaboration and enhance sound, efficient, and environmentally sound maritime operations.*

- **Dr. John R. Smith**, Oceanographer, Hawai'i Undersea Research Laboratory and Department of Oceanography, University of Hawai'i at Mānoa (ret.)  
*"Hawai'i based contributions to seafloor mapping in the Pacific."* A review of the University of Hawai'i partnering with state, local NOAA facilities, federal agencies, and private foundations to carry out extensive surveys and data syntheses of Pacific regions using Hawai'i based vessels and assets along with those home ported elsewhere.
- **Dr. Jennifer Samson**, Archipelagic Research Program Lead, Ecosystem Sciences Division, Pacific Islands Fisheries Science Center, National Marine Fisheries Service, NOAA  
*"The Value of High Quality Mapping Products to Support and Improve Fisheries Science in the Pacific Island Region."* Accurate and complete mapping information (including quality backscatter) is critical for fisheries and habitat assessment and monitoring efforts that allow us to more effectively meet the NOAA Fisheries mission to conserve and manage coastal and marine ecosystems and resources.
- **Dr. Daniel Wagner**, Chief Scientist, Ocean Exploration Trust  
*"Seafloor mapping by E/V Nautilus in the Pacific: Recent accomplishments and what is next?"* Summary of E/V Nautilus mapping operations in the Pacific in 2021-2022, and provide an overview of plans for the next year.
- **Stephen White**, Remote Sensing Division, National Geodetic Survey, NOS, NOAA  
*"Topobathy lidar efforts in the Pacific Islands."* An overview of efforts to collect topobathy lidar in the Pacific Islands ahead of NOAA ship operations to assist with planning and situational awareness, to increase efficiency and safety.
- **Dr. Ashton Flinders**, Research Geophysicist, Hawaiian Volcano Observatory, U.S. Geological Survey  
*"USGS Coastal and Marine Mapping Priorities in the Pacific; Past, Present, and Future."* He will provide a brief overview of past, present, and future mapping partnerships and priorities of USGS and National interest in the Pacific.

**Commenters:**

- **Dr. Malia Chow**, Branch Chief, PIRO Habitat Conservation Division, NOAA Fisheries
- **Sarah Falzarano**, Chief, Technical Integration Branch, Honolulu District, USACE

**4:15 – 4:30**      **Public comment period – comments directed to the HSRP members**

**4:30 – 5:30**      **Recap and day 1 wrap up: HSRP members around the room, recap, discussion on the issue papers, requests for recommendation letter, meeting priorities, Julie Thomas, Sean M. Duffy, Sr.**

**HSRP PUBLIC MEETING DAY 1 ADJOURNS**

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## Wednesday, September 21 – Day Two

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### Morning **HSRP PUBLIC MEETING DAY 2 CONVENES**

**8:30 – 9:15** Recap and discussion of day 1 and round robin with all members

- **Julie Thomas**, HSRP chair and **Rear Admiral Benjamin Evans**, OCS, NOS, NOAA and HSRP DFO

**9:15 – 10:45** **Stakeholder Perspectives on Opportunities and Vulnerabilities: NOAA Precision Marine Navigation Data, Ports, Harbors and Sustaining a Supply Chain in** Hawai'i

**Moderator and introduction: Captain Anne McIntyre**, HSRP member, and **Julia Powell**, Chief, Navigation Services Division, OCS/NOS/NOAA

*Hawai'i relies almost entirely on the marine transportation system for delivery of day to day goods. Stakeholders discuss the vulnerabilities within this supply chain and how they rely on NOAA's navigation products, data and services that will enable further economic growth of Hawai'i's shipping industry. NOAA will provide an update on its Precision Marine Navigation program over the next 3-5 years and stakeholders will address their perspectives on how to maximize the "just-in-time" supply chain.*

- **Julia Powell**, Chief, Navigation Services Division, OCS/NOS/NOAA

**"Precision Marine Navigation: Information Infrastructure for the New Blue Economy."**

- **Captain Ed Enos**, Hawaii Pilots Association

**"Providing Economic Security in Real Time, with Real Data, for All of Hawai'i Residents."**

- **Ethan Creps**, Director, Vessel Operations and Engineering - Pacific, Matson Navigation

**"Combating a Changing Climate through Real Time Data"**

- **Eduardo Manglallan**, Deputy Director, Harbors Division, Hawai'i Department of Transportation

**"Hawaii Commercial Harbors Importance and Growth."**

- **Mikkel Roer**, Port Captain, Manager, Marine Compliance, Young Brothers/Foss Maritime, Hawai'i

**"Young Brothers: Critical Infrastructure and Neighbor Island Lifeline."**

**10:45 – 11:00** Public comment period - comments directed to the HSRP members

**11:00 – 11:15** Break

**11:15 – 11:45** HSRP working group discussion – priorities, issue papers, comments

- **HSRP Planning and Engagement working group (P&E WG) discussion**, Julie Thomas, Dave Maune, chairs;

HSRP discussion and comments on topics such as the HSRP resilience issue paper, Public Private Partnerships and the Standard Ocean Mapping Protocol

**11:45 – 12:00** HSRP Day 2 wrap up

**HSRP DAY 2 ADJOURNS**

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## Thursday, September 22 – Day Three

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### Morning **HSRP PUBLIC MEETING DAY 3 CONVENES**

#### 8:30 – 9:30 **Public meeting reconvenes and day 2 recap:**

**Julie Thomas**, HSRP chair and **Rear Admiral Benjamin Evans**, OCS, NOS, NOAA and HSRP DFO

#### 9:30 – 11:30 **The Role of the Pacific ‘Ohana in Keeping Your Feet Dry on the Shoreline: NOS and NOAA’s Flooding, Inundation, Sea Level Data, Products and Services**

*Measuring, monitoring, and mitigating flooding and sea level change in Federal, State, regional and local projects in Hawai‘i and the Pacific Islands and the contribution of NOAA’s critical foundational data. Feedback from science, service, and stewardship stakeholders on the ability of current NGS, CO-OPS, and OCS resources to address sea-level rise questions and needs.*

**Moderators:** **Julie Thomas**, HSRP member, and **Melissa Iwamoto**, Director and PI, Pacific Islands Ocean Observing System (PacIOOS)

**Opening comments:** **Paul M. Scholz**, Deputy Assistant Administrator for Ocean Services and Coastal Zone Management, NOS, NOAA

- **Analise Keeney**, Coastal Hazards Oceanographer, CO-OPS, NOS, NOAA

***“Coastal Inundation at Climate Timescale: A 5-year plan for improving science, products and services”.***

NOAA released a White Paper that outlines a plan to improve coastal inundation data products and services. This presentation will focus on how the Infrastructure Investments and Jobs Act support will be used to advance the research, observations, modeling and decision support outlined in the White Paper.

- **Dr. Charles “Chip” Fletcher**, Associate Dean for Academic Affairs, Professor, Department of Earth Sciences, School of Ocean and Earth Science and Technology, University of Hawai‘i, and Vice-Chair, Honolulu Climate Change Commission

***“Setting the Stage: Science in Support of Resilient Community Development.”***

Modeling the impacts of sea level rise has provided local and state agencies in Hawai‘i the opportunity to develop new policies designed to improve community resilience.

- **Jessica Podoski**, PE, Coastal Engineer, U.S. Army Corps of Engineers, Honolulu District

***“USACE Climate Preparedness and Resilience: How NOAA Data Supports Implementation in the Pacific Islands.”***

This presentation will outline the policies and processes USACE uses to evaluate resiliency of existing and future USACE water resources projects in the Pacific Islands, including examples of how NOAA data supports this analysis and a discussion of additional data needs.

#### 10:30 – 10:45 **Break**

- **Ray Tanabe**, Director, Pacific Region, National Weather Service, NOAA

***“Reaching the Last Mile in the Pacific.”*** Robust and consistent observations are the key to climate resiliency in the Pacific.

- **Tara M. Owens**, Extension Faculty, Coastal Processes and Hazards Specialist, University of Hawai‘i Sea Grant College Program; Science and Technical Advisor, County of Maui Planning Department

*“Bridging the Gap between Science and Coastal Management in Hawai‘i.”* She will describe some of the ways that sea level rise is already affecting Maui communities and provide examples of adapting using science-based coastal management approaches.

- **Dr. Haunani Kane**, Assistant Professor, School of Geographical Sciences and Urban Planning, Arizona State University

*“Assessing coastal change along rocky and remote shorelines.”* She will explore how storms, and sea level rise impact natural resources along rocky shorelines, and the remote atoll islands of Papahānaumokuākea.

- **Edward Carlson**, Pacific Region Geodetic Advisor, National Geodetic Survey, NOS, NOAA *“National Geodetic Survey in the Pacific.”* He will address NGS’s work in the Pacific and the importance of water levels, mapping and charting, and assisting planners with sea level rise.

**11:30 – 11:45**            **Public comment period** – targeted to the HSRP members

**11:45 – 1:00**            **Lunch on your own** (HSRP members have a working lunch)

**Afternoon**            **HSRP PUBLIC MEETING RECONVENES**

**1:00 – 1:10**            **Short presentations/discussions: HSRP ongoing interests and priorities**

- **Darren Wright**, National Marine Services Program Manager, Marine, Tropical and Tsunami Services Branch, National Weather Service, NOAA

*“NWS Marine Weather Update”*. An update on two new products and services in marine weather.

**1:10 – 2:30**            **Public Private Partnerships - Gary Thompson**, HSRP member and HSRP members

- **Commenters:** **Tony Lavoie**, NOAA Chief Data Officer, and **CDR Brianna Hillstrom**, Chief, HSD
- **HSRP members:** Ed Saade, Lindsay Gee, Dr. Qassim Abdullah, Dave Maune

**2:30 – 3:30**            **HSRP Issue Paper and request for HSRP comments**

- **Paul Turner**, Acting Director, Integrated Ocean and Coastal Mapping program, NOS, NOAA, NOMEAC and an overview of the draft Standard Ocean Mapping Protocol (SOMP)
- **Julie Thomas, Nicole Elko, Ed Saade**, DRAFT HSRP coastal resilience issue paper

**3:30 – 3:45**            **Break**

**3:45 – 4:15**            **HSRP working groups updates: issue papers, recommendations, priorities**

- **Technology Working Group**, **Dr. Qassim Abdullah, Capt. Anuj Chopra**, chairs, Digital Twin
- **Arctic Working Group**, Nathan Wardwell
- **P&E Working Group**, Julie Thomas and Dave Maune, chairs  
HSRP priority matrix; topics for future meetings

**4:15 – 5:00**            **HSRP member discussion on recommendation letter and HSRP round robin**  
**HSRP meeting recap and closing comments** – Julie Thomas and RDML Ben Evans

**5:00**                    **Closing Hawaiian cultural protocol, Opening Hawaiian cultural protocol**

- Closing Hawaiian cultural protocol, Kanoë Morishige, Kilo Ka‘awa-Gonzales, and Malia Evans, Papahānaumokuākea Marine National Monument, NOS, NOAA

**5:15**                    **Meeting concludes**

**HSRP DAY 3 and PUBLIC MEETING CONCLUDES**