

# Draft Agenda and Notes

CC CoP Webinar

January 21, 2020

11:00 am - 12:30 pm CT

Proving Ground room for local attendees

UPDATE: We will be using Zoom for the conference call due to technical issues with Google Meet

**Zoom Meet:** Join online: <https://uastem.zoom.us/j/896663059>

Phone: 1 646 558 8656 or +1 669 900 6833

Meeting ID: 896 663 059

## Meeting Purpose and Objectives:

- Provide an update to the community about progress
- Inform about future engagements
- Collect feedback from the community on engagements
- Give scientific/technical updates - topobathy work and data access; shoreline data

## Outline

1. Introduction and update on the CC CoP activities
2. Katrina Wyllie (NOAA/NOS/OCS) presentation - "The National Bathymetric Source"
3. Doug Graham (NOAA/NOS/NGS) presentation - "NOAA's Continually Updated Shoreline Product"
4. Open discussion and opportunity for the community members to provide feedback
5. Future engagement opportunities and adjourn

## Attendees

Aijun Zhang - NOAA, Ali Abdolali - NOAA, Alison MacNeil - NOAA, Amin Kiaghadi - UT Austin, Audra Luscher - NOAA, Beheen Trimble - NOAA, Brian Blanton - UNC, Cameron George - NOAA, Cayla Dean - NOAA, Clint Dawson - UT Austin, David Vallee - NOAA, David Welch - NOAA, Dina Sang - NOAA, Doug Graham - NOAA, Doug Marcy - NOAA, Ehab Meselhe - Tulane, Frank Tsai - LSU, George Xue - LSU, Gina Martinez-Velez - USACE, Greg Steyer - USGS, Joannes Westerink - Notre Dame, John McCombs, John Schmidt - NOAA, JS Allen - NOAA, Juser Dhondia - NOAA, Karen Bareford - NOAA, Katie Landry - NOAA, Katrina Wyllie - NOAA, Kelly Stroker - NOAA, Kendra Dresback - OU, Kirk Waters, Kyle Mandli - Columbia, Li Erikson - USGS, Maria Teresa Contreras-Vargas - Notre Dame, Mary Culver - NOAA, Matt Pendleton, Melissa Moulton, Michael Lalime - NOAA, Mike Aslaksen, Mojgan Rostaminia - NOAA, Nels Frazier - NOAA, Pat Burke - NOAA, Patrick Kerr - USACE, Pete Murdoch - USGS, Sadiq Khan - NOAA, Saeed Moghimi - NOAA, Suzanne Van Cooten - NOAA, Tarang Khangaonkar - PNNL, Yi Chen - NOAA, Youcan Feng - UNC, Joseph Zhang - VIMS, Wenrui Huang - FSU

## Notes and action items

### Introduction and update on the CC CoP activities (Cayla)

Welcome to new members (total of 121 members now, less than 1 year into the project)!

Places where Cayla has been able to engage with CoP members

- NOAA Water Meeting, October 2019 (Decision Support and Service Delivery teams) summary forthcoming
- Coastal Ocean Modeling Testbed (COMT) Mtg. summary forthcoming
- AGU
  - Town Hall (summary notes provided via agenda) 42 participants
  - Scientific session - over 70 poster and oral presentations

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- Upcoming: Ocean Sciences Meeting, Feb. 2020 (oral session and poster session on Wednesday afternoon, February 19)

Questions: Can you share the posters from AGU? [I can make a repository on the website once it is available and put up any presentations that the presenters are willing to share.](#)

### **Katrina Wyllie (NOAA/NOS/OCS) presentation - "The National Bathymetric Source" -**

**Contact information:** [katrina.wyllie@noaa.gov](mailto:katrina.wyllie@noaa.gov) or [glen.rice@noaa.gov](mailto:glen.rice@noaa.gov)

#### **Discussion Notes**

Website should be available in March. For information, reach out to Katrina or Glenn?

Katrina will send slides to Cayla for distribution. (also share her email)

Questions answered on the call:

- Will use any bathymetry data they can get (including NCEI, USACOE, working on Lidar)
- Will extend topography upstream to the extent that V-datum allows. Will use any reliable data and get to the extent this
- Plan to go 20 meters inland for overlap.
- Pulling from grid directly and will likely pull from Digital Coast if needed
- Right now everything is done in python, except the combine process
- Timeline for the gulf region: starting next, hope to do it in 2020--if they can
- JALBTX: trying to get all of it in as they can.

Is API ready for partial testing: This and other questions, Cayla will follow up with Katrina to get answers.

- Is the API ready for partial testing (pulling data and so on ..)? [Our code, including the scrapers for how we pull data, will be available to the GitHub page when it is in a stable state. An API for accessing our data is still in development and not ready for partial testing yet.](#)
- How do you address datum conversion across U.S. Canadian border? [We are not including Canadian data in the NBS project at this time. That said, as long as the source datum is known and there is a known, available separation model to get it to the working datum, we plan to be able to work with it.](#)
- How is this data different from what is already available through NCEI, CoNED....etc? [Our primary mission is to support nautical charting and to do that we need to have ownership of the source of bathymetry that makes it to the chart. The hydrographic quality metrics \(coverage, feature detection, vertical and horizontal uncertainty\) that we use for the combine process set us apart from other efforts to combine bathymetry. The NBS product is a seamless, high-resolution surface that represents the best available bathymetry and has traceable source metadata.](#)
- Hi Katrina, great talk. Thank you for providing the update. Regarding the difficult Alaska coast...What data do you plan to use for the Alaska coast? In particular the west and north (arctic) coasts of Alaska. I know there are plans to conduct new hydrographic surveys to update the 1940s/1950s soundings; do you plan to wait until this new data is collected? [We will use all available data. The Coast Survey External Source Data team is seeking out additional external source data to supplement existing data. As new source becomes available to us, we will include it and continue to maintain the best available bathymetry product. We plan to also include satellite-derived bathymetry as a source. For highly changeable areas or remote areas with](#)

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limited modern data, the combine process based on quality metrics may find that this type of data is the best available.

- And following up on the Alaska question: what resolution do you anticipate the Alaska bathymetry to be gridded at? We are currently gridding the bathymetry based on the new ENC rescheme bands so we will have several resolutions: 2m, 4m, 8m, and 16m. As we continue development, we plan on maintaining the product at a variable resolution surface based on the source data density. The extraction step allows for flexibility to re-sample to a desired resolution.

### **Doug Graham (NOAA/NOS/NGS) presentation - "NOAA's Continually Updated Shoreline Product" -**

doug.graham@noaa.gov

#### **Discussion Notes**

Town Hall style webinar on Feb. 12 How to access data, etc.

Will send slides with Cayla for distribution

No questions for Doug, at this time

### **Johannes Westerink (University of Notre Dame)**

jjw@nd.edu

Downloaded CUSP and upgrading model from 200 meters to 20 meter resolution

Did this by downloading CUSP and melding that data with NHD data

Want an entire coastline for US and Puerto Rico

Merging that with topo/bathy data at a 10 meter contour to generate unstructured meshes

The coupling factor allows them to get at the shoreline and upriver segments, provides good information out into the dredged channels and up the channeled rivers

Shoreline is critical in providing this data

Will send slides to Cayla to share

#### Questions for Joannes:

Doug - Are they creating data, or pulling from CUSP?

Mostly pulling from CUSP (if CUSP and NHD don't mesh, they go in and modify by hand).

Doug - let CUSP know if you have a particular area where they need data, or where CUSP is not good.

### **Open discussion and opportunity for the community members to provide feedback - Notes**

#### **How frequently for Webinars?**

Had initially planned to hold every other month. Want to balance time of participants and availability of quality presentations

#### **What topics do you want? Want balance of information without overloading**

Possible topics previously discussed

Stakeholder requirements

AI in driving future coupling work

#### Suggestions provided:

Data availability

Updates of ongoing projects

NWM folks to cover different part of their model components. Their plan for update and so on.

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Physics informed AI

Vertical referencing in the models

Data scraping automation; How Joannes melds data sources and automates mesh creation, etc

Update on use of Coastal Coupling Models

### **Future engagement opportunities and adjourn - Notes**

Ocean Sciences Meeting, San Diego, Feb. 16-21

Webinar, late March (modeling requirements)

CC CoP in-person Meeting, Tuscaloosa, May 12-13

Webinar series will continue. Let Cayla know if you would like to volunteer for a talk

Website domain has been obtained, being populated