

# Agenda and Notes

CC CoP Webinar

October 23, 2020

11:00 am - 1:00 pm CT

Hangouts Meet

Join online: <https://meet.google.com/xfx-rcxs-byu>

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PIN: 489 586 516#

## Meeting Purpose and Objectives:

- Provide an update to the community about progress
- Inform about future engagements
- Give scientific/technical updates

## Outline

1. Introduction and update on the CC CoP activities
2. Opening remarks by RDML on NOAA AI priority and community modeling
3. Greg Duske (NOAA/CO-OPS) on details of NOAA AI strategic plan
4. Grey Nearing (University of Alabama) on freshwater modeling
5. Future engagement opportunities and adjourn

## Documents

[CoP presentation](#)

[Greg presentation](#)

[Grey presentation](#)

## Attendees

Cayla Dean, Adam Gibbons, Aijun Zhang, Alex Braud, Alex Prusevich, Alison Macneil, Amin Kargarian, Amin Kiaghadi, Andre Van der Westhuysen, Antonia Sebastian, Audra Luscher, Brenna Sweetman, Cary Talbot, Chris Massey, Chris Schubert, David Munoz, David Johnson, Debra Hernandez, Diana Bailey, Ed Clark, Evan Turner, Felix Santiago-Collazo, Forsyth Kineon-Simpson, Frank Tsai, Gina Martinez, Greg Dusek, Greg Styer, Grey Nearing, Guoming Ling, Gustavo Coelho, Hamed Moftakhari, Hamid?, Hassan Mashriqui, Jaimlyn Sypnieski, James Pagenkopf, Jeff Arnold, Jennifer McGee, Jeremy Wetzal, Jesse Feyen, Jim McManus, John Kelley, David Mattern, John Ratcliff, Joseph Zhang, Julia Engdahl, Kate Abshire, Kazi Mita, Devin De Santiago, Landon Knapp, Lei Shi, Lianyuan Zheng, Liujuan Tang, Liv Meltzner, Marouane Temimi, Matthew Cooper, Md Arifur Rahmahn, Mehdi Rezaeianzadeh, Mojgan Rostaminia, Norman Levine, Tricia, Takis Velissariou, Pat Burke, Philip Chu, Ram Neupane, Rob Hetland, Sam Rendon, Shahidul, Tom Graziano, Tim Gallaudet, Tracy Fanara, Trey Flowers, Wei Yu, Ye-Hong, Youcan Feng, Yuqi Song, Zachary Burnett, Zhendong Cao

## Notes and action items

Notes from Admiral Gallaudet Opening Remarks:

Zachary Burnett: Can you go over the platforms that NOAA is implementing AI on?

Rear Admiral Gallaudet: Our modeling and hardware systems are diverse across NOAA. Edge computing is also on the forefront.

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Tom Graziano: With regard to the application of these new technologies, we just completed the fourth and final annual water meeting. Next year we'll transition to a Weather, Water, Climate meeting to advance science and service in NOAA, supporting the direction of your leadership.

Rear Admiral Gallaudet: Recent Executive Order pushes for improved water forecasting and will push for additional future resources.

Notes from Greg Dusek's presentation:

Q from Admiral Gallaudet: Are you using the commercial cloud to store the surf cam imagery?

A: Yes in Axiom data science servers.

Q: Zachary Burnett: Does the enforcement of best practices you mentioned involve common development strategies (i.e. enforcing standard programming language or resources/tools) for operational systems using AI)?

A: Some flexibility there. We will encourage open source development and certain languages.

Q from Audra: What do you think are some cross agency AI opportunities pilot efforts that a framework like the CC CoP should be supporting/promoting to help the AI strategy be implemented?

A: Focusing on coastal models for ensembles and just generally incorporating AI into coastal models. Will be exploratory, the opportunities are not clear yet.

Q: from Debra Hernandez: What are the biggest barriers to advancing using AI for coastal ocean applications?

A: It comes down to data and observations (i.e. is there enough, is it the right data?)

Notes from Grey Nearing's presentation:

Q: did you conduct hyperparameter tuning in the Large LSTM model? What are the most sensitive parameters that affect NSE in the large LSTM model?

A: Yes, Hyperparameter tuning was included.

Q: What type of LSTM architecture did you use? Sequence to sequence or sequence to once?

A: Sequence to one is preferred.