Administrative/Opening Remarks

Workshop on Metrics, Post-Processing, and Products for S2S

Feb 28 – Mar 2, 2018; College Park, MD

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NOAA/OAR/National ESPC

Administrative Notes

- Welcome!
- For those on the phone, mute your phones during the talks
  - During Q&A, use "raise hand" option in GoToWebinar
- For those in the audience, silence your phones
  - During Q&A, use microphones in the aisles
- Facility: (1) access and security; (2) Restroom locations
- Meals and coffee breaks (no food/drinks in auditorium!)
  - Working lunches on your own (or pre-order)
  - No-host dinner tonight: Franklins, 6:30pm
    - **Sign-up sheet** in lobby during morning break
- Wifi (NOAAGuest): type your email into browser
- Safety and evacuation (see next slides)
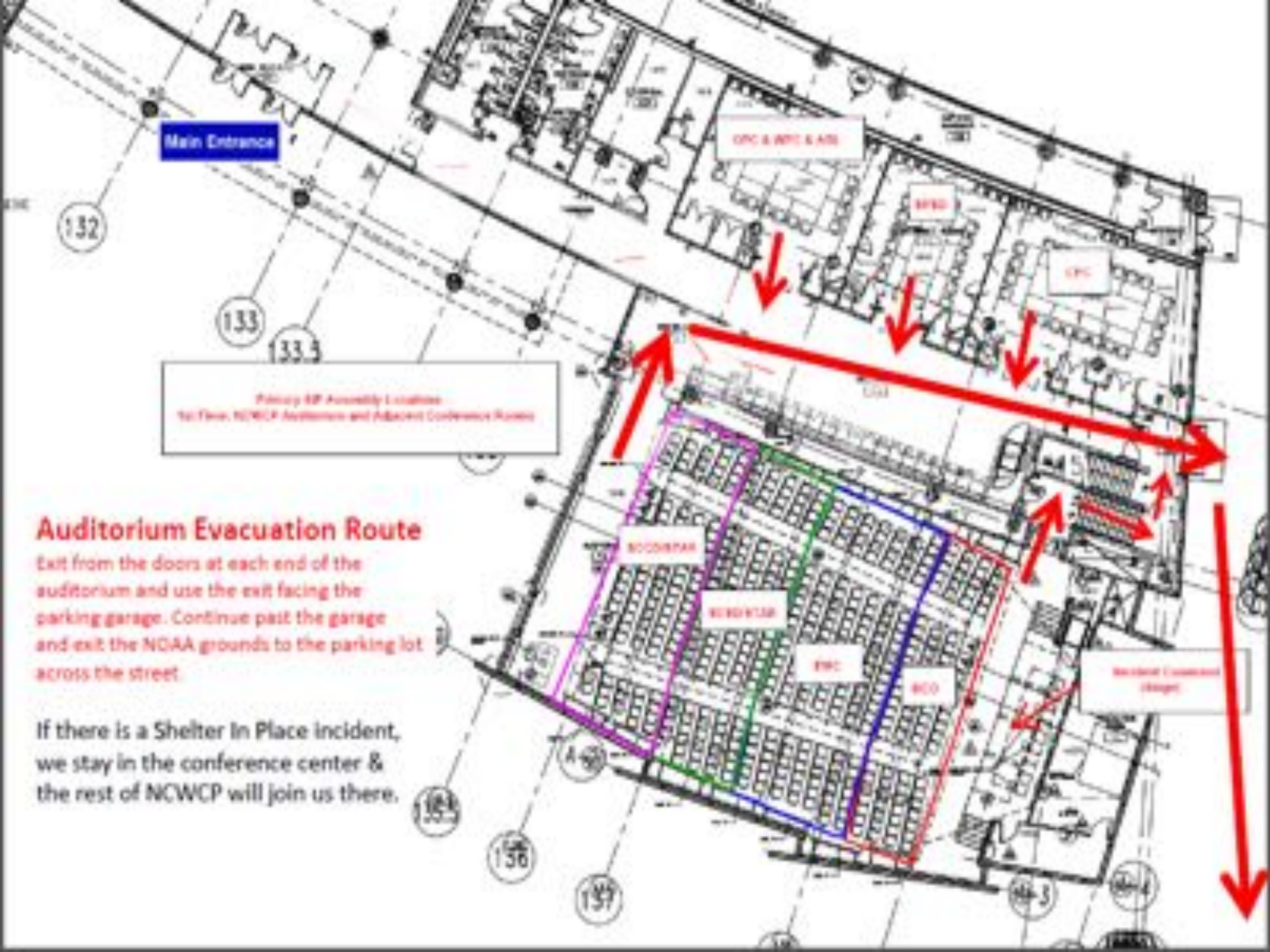
Main Entrance

Auditorium Evacuation Route

Exit from the doors at each end of the auditorium and use the exit facing the parking garage. Continue past the garage and exit the NOAA grounds to the parking lot across the street.

If there is a Shelter In Place incident, we stay in the conference center & the rest of NCWCP will join us there.

Auditorium Evacuation Route

NCWCP

Evacuation Assembly Area

Construction Zone

River Road

Google
Imagery ©2017 Google, Map data ©

Purpose

- Increased national need for extended range prediction to support decisions
  - Personal/property protection, health, infrastructure, transportation/shipping, agriculture/water management, national security
- Weather Research and Forecasting Innovation Act of 2017 calls for improved prediction including impacts (drought, sea-ice extent, etc.)
  - **Defines S2S as 2 weeks to 2 years**
- Initial meeting to:
  - Address user needs, agency capabilities, and determine gaps
  - Identify existing, near-term, longer-term potential solutions
  - Measure results via coordinated metrics

*National*ESPC
Earth System Prediction Capability

Metrics

- Categorize in groups

    1) Input: observations, their quality, quantity, distribution etc.

    2) Process: measuring characterization of physical processes. Can range from detailed (moisture, interface fluxes) to collective (el Nino, TC genesis)

    3) Output: specific forecast variables, to include thresholds such as drought, flood, frost, monsoon, TC genesis)

    4) Outcome: improved forecasts, increased reliability

    5) Impact: user/customer benefit from decisions based on forecasts (safety, economy, preparedness).

- This workshop will focus on (2) through (4).

- This workshop will also provide community input to the NOAA draft S2S prediction report in response to the Weather Act of 2017.

Expected results

Baseline needs and capability:

- Identify current agency operational capabilities for S2S prediction and how the agencies evaluate them (current metrics they are using)
- Identify user data and product needs (parameters, frequency, availability, reliability)
- Gaps between current capabilities and needs

Address gaps:

- Potential operational solutions to gaps (more frequent NWP runs, more ensemble members, more output parameters, better product design, etc.)
- Potential technological solutions to gaps (post processing, analog, statistical/dynamical methods, AI, etc.)
- S2S opportunities and research

Measure progress:

- Discuss usability, reliability and improved metrics (developer metrics and reliability metrics)
- Recommend metrics to measure progress in meeting community/user needs

- Challenging agenda—please stick to times

- Your participation in these working groups will help inform the workshop report and policy recommendations

- Begin with goal in mind:
  - Recommendations for operational community
  - Research directions forward