

NOAA Education Council Meeting

Date/Time: March 18, 2015 / 1:00–4:00 pm
Location: SSMC3, Room 14836
Dial-in: 866.901.0711
Passcode: 8134683
Contact: Lisa Nakamura (202) 482-3139, Patrick Drupp (202) 482-9183

Adobe Connects Link to Meeting: <http://connectpro46305642.adobeconnect.com/edcouncil/>

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http://www.oesd.noaa.gov/council/Audio_AdobeConnects.pdf

AGENDA

- 1:00 Welcome/Opening remarks - Christos Michalopoulos
- 1:10 Annual Review of Progress (*Input Requested*) – John Baek & Data Team (60 min presentation/ 30 min discussion)
- 2:40 Break (10 min)
- 2:50 NOAA Education Network Presentation: Sanctuaries (*Input Requested*) - Tracy Hajduk and Seaberry Nachbar (15 min presentation/ 15 min discussion)
- 3:20 NOAA Education Network Presentation: WCMs (*Input Requested*) - Doug Hilderbrand, Katie Collins-Garret, and Tanja Fransen (15 min presentation/ 15 min discussion)
- 3:50 Updates and announcements

ATTENDANCE

In person (17): Christos Michalopoulos (CM), Jon Lilley (JL), Ron Gird (RG), Bruce Moravchik (BM), Tracy Hajduk (TH), John Baek (JB), Marissa Jones (MJ), Kristen Jabanoski (KJ), Marlene Kaplan (MK), Nina Jackson (NJ), Rochelle Plutchak (RP), Carrie McDougall (CMc), Christopher Nelson (CN), Pat Drupp (PD), Lisa Nakamura (LN), Katie Collins-Garret (KCG), Doug Hilderbrand (DH)

On phone/chat (16): Amy Clark (AC), Atziri Ibanez (AI), Bronwen Rice (BR), Frank Niepold (FN), John McLaughlin (JM), Stephanie Bennett (SB), Susan Haynes (SH), Tanja Fransen (TF), Valerie Williams (VW), Lisa Hiruki-Raring (LHR), Jennifer Hammond (JH), Chiara Zuccarino-Crowe (CZC), Louisa Koch (LK), Julia Galkiewicz (JG), Chris Botnick (CB), Seaberry Nachbar (SN)

Summary of Action Items and Decisions

- **Action:** MJ will share a draft email for the council for sending the Strategic Plan out to

the member's networks for public review.

- **Action:** TF will share the links to the adult training modules from the Weather Ready Nation Ambassadors program.

Opening Remarks from Christos:

- At the NOAA President's FY16 Budget Constituent Brief, Dr. Sullivan identified the overall NOAA priorities of resiliency and environmental intelligence. There were two education related questions from Teacher at Sea Alumni
- On Monday (3/23/15) the White House is holding its annual science fair, with a citizen science focus, which will highlight CoCoRaHs. John McLaughlin was on the White House lawn this morning (3/18/15) to install a rain gauge in the First Lady's garden, which will be visible from the South Fence. It is a 5 foot cedar post outside the kitchen garden with a CoCoRaHs rain gauge attached.
- LN: Louisa attended seven briefings over two days last week (3/9-3/10) with four members of the House (Honda, Benishek, Lee, and Hoyer), as well as Senator Kirk, the Appropriations staff, and the ten Knauss Legislative Fellows. The common measures data and some information from the upcoming FY2014 Accomplishments Report were used.
- The NOAA Education Strategic Plan has been approved by the Ed Council and is to be published on the Federal Register for public review (3 weeks) on Friday (3/20/15). Thanks to Marissa for all her work stepping in and finishing the plan. Please reach out to your networks and encourage them to participate in the public review.
 - **Action: We'll share a draft email you can send to them.**

Annual Review of Progress – John Baek & Data Team (60 min presentation/ 30 min discussion)

- See presentation on Ed council intranet site for details

Objective 1.2

- FN: In our recent evaluation of Climate Portal we are seeing that educators are valuing the entire portal as opposed to just the education section. So I could see the value of the ForeSee survey being implemented there.
 - JB: Is that the next step that you would recommend for the council and the data team?
 - FN: Absolutely.
 - BM: Just a note, I think it's unfortunate, particularly in this area, how we do lose a lot of data. A number of years ago NOS website ran a similar ForeSee survey and found that ~30% of respondents were educators/students looking for resources. They were not, however, looking entirely in the education section. They were looking a lot of other sections that were really useful to them, e.g., podcasts, ocean facts. It might be something to take under advisement, not only to look to the education groups, but also to the web and communication groups and what kind of statistics they are picking up if they are doing something similar with ForeSee or other surveys.
- JB: As a next step we would try to figure out some new definitions.
- CMC: At any point can you use data that shows this progression (slide 12) and that this progression is logically sound so that you don't always have to measure close to the downstream target audience. But the measures that are more upstream are considered

sufficient to assume that your downstream measurement is representative.

- JB: It is called logic dating, you try to make sure each leg is valid. That takes a lot of work and trying to coordinate that across all programs is very challenging. It is possible, but you don't want to rely too much on assumptions because our programming is constantly changing. The more we do this the more we'll establish baselines.
- BM: What kind of thought has been given to mechanisms and processes about students perceived knowledge gain?
 - JB: In terms of measurements, a lot of the web stuff we aren't going to be able to follow through. There are too many legs to get to the end. It is measurable, but to what extent do we have the resources?
 - BM: It's relatively easy to test educators that are involved in professional development programs, but when you get to students it is much more difficult.
- FN: If increased understanding is the end of the process, is there anything we can do to make that more NOAA unique?
 - JB: We didn't really vet this (slide 12) with the community yet. One of the things I'm hearing is that using some of these things over the next couple of months and getting your input on how to improve them and identify how to best define the measures that we want is something we should be doing.

Objective 4.3

- FN: What does the body of research say about when career interest is established? Some say its middle school but it could be earlier or later for some.
 - LHR: There are a number of papers that indicate that if kids are engaged early like in elementary school that can feed interest into middle school, and if you can keep that sustaining they go on to pursue science in undergraduate and possibly graduate school. So if you're going to be looking at evidence of increased interest you have to look at all points in the pipeline. Even if they don't go on specifically to graduate in NOAA related disciplines, they may go on to science related fields that feed into NOAA disciplines. That is the long term approach we have taken out here in the Pacific Northwest.
- KJ: I think it is interesting to see if and how the K-12 programs are feeding into undergraduate and graduate programs. Is that measurable? Can we look at it?
 - JB: Some of the studies utilize a retrospective approach, where once they are in your program you ask a sampling where their career interest emerged from. That is something we could try to get a sense of where these sources are.
 - LN: When you look at the Knauss statements, a lot of times they describe events in their life that formed their career interest. So there is some anecdotal data there if we wanted to collect it.
 - MK: We at one point asked through the Consortium for Ocean Leadership where do they recruit their students from? So if you have a discreet program that people know you may be able to make those connections

Objective 5.1

- TH: Is amount of funding or changes in funding considered part of evidence of progress?
 - CM: It's a great idea but we may have to revisit our targets on an annual basis because a number of years ago when budgets were higher going after new money was the way to go, but the last few years maintaining a base and not losing was the way to go. Collecting the information would be relatively easy to do.

- CN: Knowing who your champions are and who to reach out to is important. It's also important to know possible champions; a non-negative comment is still very good. We are collecting some of this information and as far as published documents, anything they sent from our legislative department is going inside the database so we are tracking bills, comments on the Hill, even the briefings when they visit a sanctuary, so that all the information is in one place.
- CMc: The database is grants specific so is it tracking things beyond the grants or is it only tracking things related to ELGs?
- CN: 95% things related to grants program, other than the members of Congress section.
- JB: We'd have to build a different structure for NOAA wide.
- AI: I do think it would be a good idea to have the break down where we can see investments specifically and think it would be very useful.

General discussion

- JB: How can we improve presenting the data to you?
 - CM: This is a great first start. You've established a 4 or 5 tier scale, using this could be useful as a "dashboard" of where we are.
 - JB (referring to pyramid slide): This is developed by an evaluation group. Tier1 is monitoring and this is where most of our programs are going to be (we've added tier 0). Individual programs might think about and are already collecting data at the tier 2 perceived effects level. We are trying to get to tier three with our PD outcome measurements. Are they integrating? Is there an observable action they are reporting on? It is probably unlikely to get into tiers 4 and 5 which are impact and assessment and research.
 - LHR: Could you clarify perceived vs. observed effects?
 - JB: perceived effects are "at the end of the workshop do you feel like you learned more?" or "did your understanding increase?" That's a perception of understanding. "Are you happy with the program or the service you received?" Observed effects are physically observable; given that you understood things you developed a product or completed a project, you did something tangible or changed your behaviors.
- CMc: You had lists of programs for each of the objectives and sub-areas that would report, but even within those programs there are sub-programs, so exactly which programs will contribute to the measure is not entirely clear to me.
 - JB: We've done that with common outcome measures with PD so we have a process in place trying to establish consistency of measure across programs, once we decide what we want to measure.
 - CMc: Would someone implement that in their program or would you take what they're doing and extract the information?
 - JB: A little bit of both. We are still figuring that out. We are also developing common forms so they can use something generic to collect that data.
- BR (via chat): Sorry if I missed this, but is this the process we will go through annually to review our data? Same timeframe? Will those annual reviews be archived somewhere (obviously not public, but for our reference?) How will we decide which EOPs to focus on/add in a given year?
 - JB: This is an annual review so it will be once a year, about this time although ideally we'd push it up to February. It's keyed off the unified data call and the accomplishments report. In terms of selection of EOP's that might be a council decision to decide which ones to focus on for the year.

- FN: On the pyramid tiers: the black “no evidence” bar is troublesome. I would hate for us to say to anyone that we are doing anything that has no basis of evidence. Tier 4 is a very high bar. As the council could we look at the full portfolio of activities and explore where we could find value or joint interest in going to a tier 4 initiative.
 - MJ: On the first point of no evidence, they didn’t know it would be listed like this so many have the information but maybe did not include it. This is taken from stories, so a story could still be impactful even if it doesn’t say the number of participants, so the tiers are not the only scale for evaluating stories
 - JB: Though stronger stories do have more evidence.
 - CMc: By evidence do you mean numbers?
 - MJ: It wasn’t only numbers. If you provided numbers you were definitely monitoring. But there are other things that show that you are monitoring. We’d hope people can move up the tiers. Not every program can be at the highest tier. There is a different sweet spot for each program. If you aren’t reporting maybe you can start monitoring. If you’re monitoring maybe you can start collecting observed effects, but it will differ on the program.
- AI: Are we moving forward with all EOPs? And it is a program by program decision to which ones we will contribute?
 - JB: We aren’t going to be able to measure everything from day 1, and we will take it step by step.

NOAA Education Network Presentation: Sanctuaries (*Input Requested*) - Tracy Hajduk and Seaberry Nachbar (15 min presentation/ 15 min discussion)

- See network presentation on education council intranet site
- TH: Gulf of the Farallones and Cordell Bank expanded just last week, which was highlighted in the White House blog (<https://www.whitehouse.gov/blog/2015/03/12/protecting-vital-waters-marine-sanctuaries>). The Hawaiian Islands Humpback Whale Sactuary is working to move from a species to an ecosystem base which would expand its size.
- RG: One of the things the American Meteorological Society (AMS) has been doing at the annual meeting is to focus on a community service project. Its education focused with students. There are a couple of activities that may fit with the Sanctuaries particularly the next 2 years. Upcoming meeting in 2016 is in New Orleans and 2017 is in Seattle. We can set you up within WeatherFest and that gets the public and media’s attention. Those events would help increase your exposure.
- FN: We used to have a council working group on climate education; one of the things we’re exploring actively right now is to jump right to the interagency where it makes sense. This is one of those perfect instances where it makes sense to work across NOAA in a cross-agency way. That’s an interesting model that may work in other topics like ocean education as well.
- LN: On the professional development slide, talking about pooling limited resources to offer training that would benefit multiple groups. Can you help us understand the end game (which objective) of doing this? Is it going to help us with Strategic Plan Goal 5.3 (NOAA educators and partners collaborate at local, regional, and national levels)?
 - TH: Some of it could be that the PD could be done on a more of a local level at some times. Climate communication training could be regionally based because that varies from place to place. So it’s a chance to get people working together

- o on different levels.
 - o LN: So this about developing a mechanism for the regions in case something came up they would be able to do that.
- FN: Sometimes this NOAA wide PD is wider than NOAA where we are going to find the resources for NOAA wide. So sometimes we need to think wider than NOAA wide, given our limited resources.
- NJ: With the regional coordinators we have in NOAA, one of things we could do is ask them to put an education element in their portfolio so when they have regional coordinator meetings when they talk about education, some of these things could be incorporated.
 - o CM: It's a great suggestion. We've tried it with varying degrees of success. It came down to local capabilities and interest of the original lead and their staff. So we had some great examples of wonderful success and some examples where we didn't get much traction. But I think it is worth pursuing.

NOAA Education Network Presentation: WCMs (*Input Requested*) - Doug Hilderbrand, Katie Collins-Garret, and Tanja Fransen (15 min presentation/ 15 min discussion)

- See network presentation on education council intranet site
- LK: Are the training modules (for Weather Ready Nation Ambassadors program) Doug talked about available?
 - o DH: The training modules are available for the adults. The student modules are still under development.
 - o **Action: Tanja will send the adult training modules to the council.**
- CM: How does an entity become an ambassador and what is their role? Do you have information we can distribute? What is the "ask" for the council?
 - o DH: The best place to go is weather.gov, look for the Ambassador thumbnail. For an interested organization it takes about ten minutes to read the legal terms of use. They give their fundamental information: name; title; organization; etc. It comes into a Google spreadsheet, and we can process it within hours to days and they get recognized. It doesn't matter how established they are we are only looking for four things
 1. Promote preparedness messages
 2. Think of innovated ways to partner with NOAA
 3. Give us their success stories
 4. Be an example yourself. Raytheon sent out the adult training modules to all 60,000 employees to take the modules and learn to be better prepared.
 - o DH: Material to disseminate – glossy two pager and a template invite, there is also information on the Weather Ready Nation website
- LN: What are some of the "asks" that require sustained collaboration for the council other than an information "blast"?
 - o KG: So if we continued with our journal articles with the Traveling Owl, that is an opportunity to collaborate with people within NOAA across the country to learn about what they do and take that information and send it out through our public vehicle to teach the public about what NOAA does.
 - o TF: Owl, could visit a marine sanctuary to talk about weather and climate in that area.
 - o KG: It may be to have the Ed Council help us find groups that we may not have

- thought of to engage for the Ambassadors program.
 - CM: We are in the process of using the network presentations to identify areas to consider for potential collaborative projects as we form our Implementation Plan.
 - RG: One impact would be climate and its impact with the economy. We could explore our partnership with the AMS education. I would go beyond weather, to weather, water, and climate issues.
- DH: Our social media platforms have been very successful such as Google Hangouts, our tweet chats. We could do a NOAA education themed type of event. We have one next week on women and weather.
- LK: What are the metrics of success for the Ambassadors Program?
 - DH: We are still working on that. At the moment it is basically the number of ambassadors.

Updates and announcements

- TH: Introducing Chiara Zuccarino-Crowe in ONMS. She will coordinate tourism and recreation efforts, sit on a few interagency groups whose projects are relevant to education at NOAA, such as the Federal Interagency Council on Outdoor Recreation: a White House initiative to get all 4th graders into public outdoors, and NOAA is part of that federal family of agencies.
- NJ: On Sundays we have a Sunday tweet that talks about the satellite event imagery game app to introduce to the general public
- PD: FY14 Accomplishments Report is coming soon, thanks to everyone who has submitting stories and helped in the editing process.
- RG: Department of Education upcoming Green Schools: last year we supported them by having a tour of NSEP. We have it confirmed that NSEP will support the tour again this year.
- RG: Email from Jennifer Pitzer from Marine and Oceanographic Sustainability Foundation in Delaware wanting to collaborate with us and I've responded and put some of the oceanographers in touch with Peg Steffen and a few others. We'll have more to report next month.
- BM: We had a great showing at the Climate Change Workshop at NSTA with over 250 attendees at the all-day session, along with US Forest Service, Climate Program Office, Will Steger Foundation, and the US Drilling Program.
- BM: In the midst of planning our upcoming climate workshops in Seattle, St. Petersburg, Boulder, and Silver Spring. The workshop in Silver Spring on Aug 5 is here in the Science Center with a focus on climate models and simulations. We are expecting to have national registration out next week, and this is part of the White House initiative on climate literacy and education.
- BM: We've been having lots of success with recent webinars. The last one focused on water resources. Next one is in middle of April focusing on climate impacts on indigenous communities (by authors of Ch 12 of NCA). For May, David Robinson, New Jersey climatologist who has worked with folks at NOAA will be presenting. John Holdren will be giving a webinar for us on June 1st.
- KJ: The Hollings and Education Partnership Programs applications have been reviewed, and notifications go out April 1st.
- FN: The White House reached out to us to develop a commitment to support the science fair on Monday 3/23. We will be announcing a partnership between NOAA, NASA, and Department of Energy to launch a climate education challenge for educators with grade level teens developing projects showcasing interdisciplinary approaches to addressing climate change.

- JG: We are currently recruiting panelists for the Knauss 2016 selection panel. It's April 28-30. Anyone interested should email me.
- TF: NOVA film crew with CoCoRaHs will come back in the fall because there has been no snow to film.
- LHR: The Fisheries staff from the Southeast Fisheries Science Center is doing the Miami-Dade County Youth Fair NOAA booth jointly with NOAA AOML and the hurricane center in Miami. NWS has the tornado simulator and hurricane readiness information. SE Science Center is doing NOAA Open House in May, and this year is fisheries 50th anniversary in Miami.
- SB: I will be attending our Pacific Risk Management Ohana Conference next week and hope to use some of these great NWS resources in my discussion panel! Mahalo Doug and Katie!

Upcoming Council Meetings:

All agenda items are tentative

April 15, 2015

- Implementation Retreat prep

May 12-14, 2015

- Implementation Retreat

June 17, 2015

July 15, 2015

August 19, 2015

September 16, 2015

October 21, 2015

November 18, 2015

December 16, 2015