



## **AMS Commission on the Weather and Climate Enterprise**

### ***Annual Report***

December 6, 2012

Submitted by

**Matthew J. Parker, CCM  
Commissioner**

The annual report on the activities of the AMS Commission on the Weather and Climate Enterprise (CWCE) follows. Reports from the Board on Enterprise Economic Development (BEED), Board on Enterprise Communication (BEC), and Board on Enterprise Planning (BEP) are contained in their entirety. In addition, reports from committees that report directly to the Commissioner are included as well. Several attachments accompany this report, too.

From the Commissioner's perspective, many of these activities are breaking new ground for the CWCE and, in many instances, the Society and indicate a very high level of productive activity by our "army of volunteers". New initiatives have been pursued in several key areas including the convening of a new Committee on Water Resources (under the BEED), an Ad Hoc Committee on Open Weather and Climate Services, the publication of two white papers by an industry outside of the AMS—*North American Wind Power*, and the selection of participants on the nationally syndicated Kojo Nmandi Show in conjunction with this year's AMS Washington Forum (AWF) in April and a follow-on show in August. Other developing initiatives include the ad hoc Weather Enterprise Economic Evaluation Team and an ad hoc committee with an international weather and climate theme. Of course, these new initiatives only add to the breadth of CWCE activities as can be seen within the Board and Committee reports. In that regard, please pay particular attention to the summary of this year's very successful AWF and AMS Summer Community Meeting (attached). In addition, per the direction of the AMS Council, the CWCE has been active in incorporating student members into the ranks. This was particularly true at the 2012 AMS Summer Community Meeting where several students helped design and lead the meeting. Another milestone accomplishment was the issuance of the AMS Policy Statement on "Climate Services", which was initiated by the Climate Services Committee.

Outreach activities included interactions with the AMS Space Weather Committee under the STAC and the American Commercial Space Weather Association (ACSWA) as that industry works through the working relationships between the private and government sectors (much like the government and commercial weather providers did about 10 years ago). I will Moderate a panel discussion on "Future Cooperation Within the US Space Weather Enterprise" in Austin in support of this initiative. In addition, numerous requests to hold joint sessions with the First Symposium on the Weather and Climate Enterprise have been entertained by the BEP. Also, Incoming Commissioner, Mary Glackin, is the formal liaison to the AMS Planning Commission from the CWCE.

Another major outreach effort included the BEC and AMS Policy Program working together in organizing enterprise participation in the Geosciences Congressional Visits Day in Washington, DC in September. The meeting outcomes from the last two AMS Summer Community Meetings were used as the basis of the messages taken to the Hill. Participants in this effort were wide-ranging and included many private sector firms and representatives from academia. The initial feedback was essentially, "This is great, but

where have you been?" So, we are moving forward with a lot more work remaining in demonstrating the value of the three-sector partnerships within the enterprise.

As the CWCE continues to grow tremendously, attention to potential "growing pains" has become keenly necessary. An initiative in 2012 to review and revise the Terms of Reference for each CWCE function led to a new proposed structure for the CWCE. This structure is documented in the attachment entitled "NewCWCE\_102512.pdf" and will be presented by me to the CWCE Steering Committee and AMS Council in Austin. **The goal is to obtain constructive feedback and then to incorporate changes and develop appropriate Terms of Reference for final Council approval in 2014.** By the AMS Annual Meeting in 2014 in Atlanta, this new structure should be fully functional. In addition and as a means of monitoring growth, Incoming Commissioner, Mary Glackin, has worked on updating the various CWCE member listings on the AMS website.

A significant change at NWS-HQ has impacted the CWCE. Steering Committee member, Jack Hayes, retired in May as Director of the NWS, and his replacement, the here-to-fore Chair of the BEP, Laura Furgione, has replaced Jack on the CWCE's Steering Committee. Chris Strager and Andrea Bleistein, both of the NWS, have replaced Laura as Chair of the BEP for the remainder of the term that runs through January 2013 and have agreed to serve for the follow-on full term of 2013-2016. And on a tragic note, BEC member, Ken Reeves of AccuWeather, passed in March 2012. Ken was a beacon for the enterprise and is missed dearly.

In honor of his stellar work within the enterprise, Dr John Snow of OU was this year's recipient of the Kenneth C. Spengler Award given by the CWCE. The citation is as follows:

*"For exceptional foresight and leadership in melding a diverse group of people in designing a new Commission of the AMS to meet ever expanding weather and climate enterprise needs"*

I've worked closely with John on the CWCE for many years and was thrilled to see John receive this most-deserved recognition.

The membership of CWCE Steering Committee was reviewed during 2012. The set of members at the beginning of 2012 did not reflect an effective plan as was done in years previous to 2011-2. **Therefore, a revised set of members is presented (attached) for approval by the Council.** It is believed that this listing better reflects the intended design of this body. You will note two open slots and recruiting efforts to fill these are ongoing. In addition, I should note that all Board and committee membership listings have been reviewed for proper representation and are approved. **Council approval is requested as well.**

It is an honor and pleasure to serve as Commission of the CWCE. I am very proud of the team's collective effort in making a positive impact not only on behalf of the Society for the entire society as well. I am available for comments and questions regarding the information contained in this report.

Sincerely,

*Matt Parker* (signed)

Matthew J. Parker, CCM  
Fellow Meteorologist, Atmospheric Technologies Group  
Savannah River National Laboratory, Bldg. 735-7A  
Aiken, SC 29808

(803) 725-2805 FAX (803) 725-4233  
email: [matt.parker@srnl.doe.gov](mailto:matt.parker@srnl.doe.gov)  
Twitter: CWCECommish4

## **Committees that report directly to the Commissioner**

### **Nationwide Network of Networks**

***Chair, George Frederick, CCM and Inaugural CWCE Commissioner***

The following is a summary of the activities of the NNON in 2012.

1. Held two meetings of the committee and the business model/economic value working group
  - a. Discussed next steps
  - b. Deferred moving on the AMS Chapter initiative
  - c. Refined draft report to ensure non-government networks are highlighted
  - d. OFCM will move on metadata initiative that resulted from committee and OFCM joint cooperation
  - e. Viral approach gaining traction—i.e. market forces will evolve the NNoN in spite of any other organized approach.
2. Exposing report to wider community
  - a. Published short article on Front Page blog
  - b. Prepared draft for BAMS article
  - c. Presentation at AWF
  - d. Draft report readied for final update on AMS website

Since then, we have engaged EISWG to take up the cause and they will consider our draft report at their December meeting. We have delayed finalizing our report pending any action that may come out of the EISWG engagement. We have finished our draft article for BAMS and submitted it for publication. As this is being written, I am in Washington to participate in the BEC initiative on.

The NNoN concept we envisioned as a potential business model was briefed at the BEC's meeting on improving weather forecasting through enhanced partnerships in Washington, DC on November 29, 2012.

(end)

### **Ad Hoc Committee on Environmental Security**

***Chair, John Lanicci***

The following is a summary of the Activities of the AMS Ad-hoc Committee on Environmental Security in 2012.

#### **Held a face-to-face meeting of the committee at the AMS Annual Meeting in New Orleans (25 Jan 2012)**

-- Meeting was attended by John Lanicci, Ken Carey, and Shawn Miller from the committee; also in attendance was Gary Rasmussen, Matt Parker, Betsy Weatherhead, and David Green.

-- We discussed ways to publicize environmental security to the AMS membership; among suggestions for 2013 Annual Meeting were "seeding" certain conference sessions with papers on security aspects of weather and climate change and combining them into a "virtual session on Environmental Security"

(Green), having an invited Plenary session talk on environmental security from a security expert and including someone like Rick Anthes in the session.

-- Discussed ES session at upcoming AMS Washington Forum in April and ways to publicize that session; included suggestions at spreading the word among ES-minded policy expert in the DC area.

-- Discussed various ideas for "outreach" (related to "publicize" ES bullet above); ideas ranged from calling committee and topic area by a different name, such as "Environmental Insecurity" (Carey) or "Weather, Climate, and Security" (Lanicci).

-- David Green brought up the subject of including ES in the International Meeting agenda at the 2013 meeting; Betsy Weatherhead suggested a position paper or one-page ES "primer" with figures and images that could attract interest from attendees.

### **Held a session on Environmental Security at the 2012 AMS Washington Forum (10-12 April 2012)**

-- Panel discussion format moderated by Lanicci on the afternoon of Day 1; panelists were Chad and Tracy Briggs from USAF Minerva Initiative on Energy and Environmental Security, Sherri Goodman from CNA, CDR Tony Miller from the USN's Task Force Climate Change, and Michael Kugelman from the Woodrow Wilson Center for Scholars.

-- Each panelist brought a slightly different view and perspective to the discussion, ranging from the historical perspective of ES and DoD's recent interest in ES from Briggs and Goodman, to Miller's discussion of the Navy's interest in arctic sea ice melt and the commercial and security implications of the opening of a true "NW Passage" in that region of the world, to Kugelman's six "worst-case" scenarios for ES catastrophe in South Asia.

-- Feedback from attendees at the evening reception on the ES session was very positive, and resonated with earlier sessions on Water Resources Management, Global Climate Change, and Disaster Risk Reduction.

### **Began planning for Environmental Security session at the 2013 AMS Washington Forum**

-- Panel discussion to be moderated by Lanicci planned for the afternoon of Day 1. Plan is for updates from same agencies/speakers as in 2012 AWF.

(end)

## **Ad Hoc Committee on Open Weather and Climate Services**

### ***Planning Chairs, Brian Bell and Len Pietrafesa, Past Commissioner***

In response to the EISWG that reports to the NOAA SAB, the CWCE has convened this committee to assist in garnering weather and climate enterprise input. This follows considerable effort on the part of Past Commissioner, Len Pietrafesa and Incoming Commissioner, Mary Glackin, to keep the CWCE abreast of the EISWG's work and possibilities for assistance. The main focus in 2012 was the use of LinkedIn and organizing a session at the AMS Summer Community Meeting to obtain enterprise feedback.

### **"Toward Open Weather & Climate Services"**

Session AMS Summer Community Meeting on Tuesday, August 14, 2012 at 3:30-5:00 PM

Background: [Extracted from SAB Report] An Open Weather and Climate Services (“Open WCS”) is proposed in which both NOAA and the community share equal and full access to NOAA information and development. Although it may be difficult to achieve a fully Open WCS paradigm, it is recommended that NOAA adopt a core philosophy of instituting this concept whenever and wherever possible. Recognizing that numerous challenges exist (including security, cost, development efficiency, and fair access), it is believed that none of these issues are significant enough or without reasonable solutions to prevent NOAA from moving forward on this concept. NOAA should quickly develop approaches to implementing Open WCS incrementally in areas where the paradigm can quickly and easily be employed such that the Weather and Climate Enterprise can begin to derive value from the paradigm soon. Previous endeavors and actions that have opened information services have proven to be enormously successful and beneficial to society and that is expected to be the case here too.

Objective: to engage the Weather and Climate Enterprise in a dialog about the concept of Open WCS, specifically to:

- respond to selected topics associated with the SAB Towards Open Weather and Climate Services
- respond to selected topics associated the CWG/ESIWG A Vision and Model for NOAA and Private Sector Collaboration in a National Climate Services Enterprise
- engage the entire community (audience) to obtain input as to other approaches, opportunities, and ideas for implementing Open WCS

Speakers at the summer meeting were as follows: **Intro and overview of the SAB Report and EISWG**– Brian Bell, **Open Discussion** – Berrien Moore (Discussion Leader)

## **The Weather Enterprise Economic Evaluation Team (WEEET)**

***Chair, Scott Rayder, NCAR***

This CWCE ad hoc committee was created via an AMS Private Sector List Serve call for volunteers. The goal is to create a funded Request for Proposal (RFP) to determine the size and possibly impact of the weather enterprise on the economy of the US. This data is extremely important – there are requests for such on practically each CWCE conference call – and, yet, the data are just not as readily available as we’d like. This effort aims to end that problem, at least within practical means. The team of 30+ volunteers has agreed to a three-phased approach. Phase I will consist of a literature review of previous, relevant studies. Phase II will identify data gaps and the proper metrics to measure the economic value and impact of the enterprise. Phase III will involve the development of the actual RFP, which will then be administered by the AMS. During this entire process, the very necessary activity of securing funds will be conducted as well. The AMS will collect the funds for this effort. The amount of funding will temper the level of effort identified within the RFP. An update on this effort will be provided at the AMS Annual Meeting in Austin by Chair Scott Rayder.

(end)



## AMS Board on Enterprise Economic Development (BEED)

### Annual Report 2012

**Submitted by: Melinda Marquis, Chair, AMS BEED**

### Membership Status

	<b>BEED Member</b>	<b>Organization</b>	<b>Term Ends Jan.</b>	<b>Commercial / Private</b>	<b>Agency / Gov't</b>	<b>Academia / Lab</b>
1	Melinda Marquis, Chair	NOAA / ESRL	2014		X	
2	John Lasley	SAIC	2013	X		
3	John Snow	The University of Oklahoma	2013			X
4	Shawn Miller	Raytheon Corp.	2013	X		
5	Jim Hansen	Naval Research Lab	2014		X	X
6	Mary Hayden	NCAR	2014			X
7	Sue Haupt	NCAR / RAL	2014			X
8	Sara Pryor	Indiana University	2014			X
9	Marjorie McGuirk	NOAA/NCDC	2014		X	
10	Tom Fahy	Capitol Gr	2015	X		
11	Angel McCoy	DOI/BOEM	2015		X	
12	John Haynes	NASA	2015		X	
	Matt Hutchins [Graduate Student]	Univ. of North Carolina	2016			X
	<i>Ex Officio</i> , Post Chair, BEED, Pam Emch	Northrop Grumman	2013	X		
	<i>Ex Officio</i> , Chair, Energy Committee, Steve Bennett	Scripps Institution of Oceanography	2013			X
	<i>Ex Officio</i> , Chair, ITS/ST Committee, Jim Koermer	Plymouth State University	2015			X
	<i>Ex Officio</i> , Chair, Water Resources Committee, Tim Schneider	NOAA/NWS/OHD	2015		X	

Blue font indicates terms ending in 2013. Red font indicates request for extension to preclude term ending in 2013. One may note that the BEED has recruited a student to the board per the direction of the AMS Council this year.

## **Primary Activities**

Board Meetings: The BEED conducted meetings on the following dates:

- 23 January 2012 (New Orleans)
- 21 March 2012 (telecon)
- 30 May 2012 (telecon)
- 31 July 2012 (telecon)
- 25 September 2012 (telecon)
- 26 November 2012 (telecon)

## **Accomplishments of the BEED**

### **2012 Tenth Users Forum**

The AMS Users Forum was held as part of the 2012 AMS Washington Forum. The AMS Users Forum provides an opportunity for dialogue among sources, distributors, and users of weather, water, and climate data. The session was titled, “Health User Forum: Weather and Climate Impacts and Mitigation Strategies.” The session was chaired by a member of the World Bank. Panelists included a scientist from NCAR, a member of the International Research Institute for Climate and Society at Columbia University, and an engineer from the World Bank.

### **2012 AMS Washington Forum (AWF)**

The BEED organized and successfully conducted the 2012 AWF at the University of California Washington Center in Washington, D.C., from 10-12 April 2012. This year, the theme was “Towards a Weather-, Water-, and Climate-Ready Nation,” and the agenda consisted of twelve sessions:

- Kickoff panel directly addressing the forum’s them: Towards a Weather-, Water-, and Climate-Ready Nation”
- Hydrology and Water Resource Management
- International Perspectives on Global Climate Change and Disaster Risk Reduction
- Environmental Security
- Health User Forum: Weather and Climate Impacts and Mitigation Strategies.
- Military Providers, Users, and Uses of Weather and Climate Data
- Views on Our Science from the White House and Congress
- Academic Training of Next Work Force
- Status of the NOAA FY13 Budget Request
- Space Weather Social and Economic Impacts
- Federal Agency Leadership
- Economic Benefits of the Weather and Climate Enterprise

Dr. Kathryn Sullivan, NOAA Assistant Secretary of Commerce for Environment Observation and Prediction, was our dinner speaker. Our lunch speaker was Capt. J. Collin Caldwell, Meteorological and Oceanographic (METOC) Officer in Charge for the United States Special Operations Command Central at MacDill Air Force Base in Florida, serving the United States Central Command and United States Special Operations Command communities. His talk was “Military Weather Support: A Perspective from the Field.” The 2012 AWF went very well. We

received many positive comments. Participants appreciate the ample time allowed at breaks for networking. We had 172 people register in 2011, 153 in 2011, and 106 in 2010. Melinda Marquis wrote a meeting summary, "Towards a Weather-, Water-, and Climate-Ready Nation," (attached) which has been submitted for publication in BAMS.

## **Planning Activities for the BEED**

### **2013 AMS Washington Forum (AWF)**

An organizing committee to plan the 2013 AWF was formed in May 2013. It has been meeting monthly since then to plan the 2013 AWF. The AAAS building has been reserved 2-4 April as the venue. The theme of the Forum will be the "The Economic Value of the Weather, Water, and Climate Enterprise." The ad hoc CWCE "press team" led by Co-Chairs, Veronica Johnson of WRC-TV and Jacob Wycoff of WeatherBug is planning another press release and continued interactions with the syndicated "Kojon Mando Show". Our dinner speaker is Prof. Mark Jacobson of Stanford University, internationally known for his expertise in atmospheric science and the potential of wind, solar, and water/hydropower to power the nation and the world. A brief report on highlights (that the weather and climate enterprise is a critical component of the nation's infrastructure) from the AMS Summer Community Meeting held in Norman, OK, in August of 2012 is planned, in an attempt to provide continuity among the AWF, Summer, and Annual meetings. An ad for the 2013 AWF has been submitted for publication in the November 2012 issue of BAMS.

The following sessions are being planned for the 2013 AWF:

- The Economic Value of the Weather, Water, and Climate Enterprise
- Commercialization of Weather and Climate Data
- Military Weather
- Environmental Security
- International Issues with a focus on Renewable Energy
- Renewable Energy Policy Issues
- Averting a National Water Crisis
- Executive Branch and Congressional Staffers
- Surface Transportation
- Implementation of the COASTAL Act
- NWS Reports, Recent Events, and Updates
- Federal Agency Leadership



## Energy Committee (EC) and Renewable Energy Subcommittee (RES)

**The EC membership for 2012 is listed below:**

	<b>Member</b>	<b>Organization</b>	<b>Term Ends Jan.</b>	<b>Commercial / Private</b>	<b>Agency / Gov't</b>	<b>Academia / Lab</b>
1	Heidi Centola, Incoming Chair	CME Group	2015	X		
2	Steve Bennett, Outgoing Chair	EarthRisk Technologies	2013	X		
3	Shane Motley	Xcel Energy	2015	X		
4	Brian D'Agostino	San Diego Gas and Electric	2015	X		
5	Jenny Dissen	Climate Literacy & Outreach, NOAA	2015		X	
6	Manda Adams	UNC Charlotte	2013			X
7	Mitchell Baer	US DOE, Office of Policy & Int'l Affairs, Office of Oil & Gas Analysis	2013		X	
8	Mark Russo	Chesapeake Energy	2013	X		
9	Kevin Stenson	MeteoGroup USA	2013	X		
10	Travis Hartman	MDA EarthSat Weather	2014	X		
11	Jason "Jay" Shafer	Lyndon State College	2014			X
12	DJ Rasmussen	NOAA Geophysical Dynamics Lab	2014			X
	<i>Ex Officio</i> , Co-Chair, Renewable Energy Subcommittee, Melinda Marquis	NOAA/ESRL			X	
	<i>Ex Officio</i> , Past Chair, Energy Committee, Jon Davis	Chesapeake Energy		X		

**The RES membership for 2012 is listed below and continued on the next page:**

	<b>Member</b>	<b>Organization</b>	<b>Term Ends Jan.</b>	<b>Commercial / Private</b>	<b>Agency / Gov't</b>	<b>Academia / Lab</b>
1	Jerry Crescenti	Iberdrola Renewables	2014	X		
2	Cathy Finley	Windlogics	2013	X		
3	John Manobianco	Meso, Inc.	2013			
4	Julie Lundquist Co-Chair	University of Colorado	2013			X
6	Jan Kleissl	Univ. of California, San Diego	2013			X
8	Larry Berg	DOE/PNNL	2013		X	
7	Kathy Moore	Integrated Environmental Data	2013	X		

		LLC				
8	Cegeon Chan	First Wind	2013	X		
9	Paul Gayes	Coastal Carolina University	2014			X
10	Stan Calvert->Joel Cline took this spot mid-year upon Stan's retirement from DOE	DOE	2014		X	
11	Somnath Roy	University of Illinois	2015			X
12	Chris Hedge	NOAA/NWS	2015		X	
13	Dennis O'Donnel	First Solar	2015	X		
	<i>Ex Officio</i> , Chair, Energy Committee, Stephen Bennett	Scripps Institution				X
	<i>Ex Officio</i> , Co-Chair RES, BEED Chair, <i>Melinda Marquis</i>	NOAA / ESRL	2013		X	
	<i>Ex Officio</i> , Energy Committee Liaison, Manda Adams and Kevin Stenson					

### **Accomplishments: Energy Committee (EC) and Renewable Energy Subcommittee (RES)**

The Energy Committee (EC) and Renewable Energy Subcommittee (RES) organized and hosted the Third Conference on Weather, Climate, and the New Energy Economy (3Energy), at the AMS Annual Meeting in Jan. 2012, New Orleans. All sessions were well attended with at least 75 to 150 people in any given session.

The EC and RES also organized and hosted a town hall meeting called “Best Standards and Practices for Quality Data in the Renewable Energy Industry – What Can You Take to the Bank?” at the AMS Annual Meeting (Jan., New Orleans). This was very well attended and much praise was given for this event.

The Energy Committee participated in the Student Conference, including speaking at a panel about careers in meteorology. The EC and RES also hosted a happy hour reception that was very well attended.

An AMS Position Statement with respect to supporting the U.S. renewable energy industry that was proposed to the AMS Executive Committee in summer of 2011 has been issued and can be found at the following URL:

<http://www.ametsoc.org/policy/2012policystatementenergysectorearthobservations.html>.

The RES agreed at its January meeting to write a series of white papers that address key challenges in meteorology as they pertain to wind energy. Ellen Klicka of the AMS Policy Program is serving as project manager on these papers. The first paper, about shear and wind energy, was published in late spring in “North American Wind Power” (NAWP), and was provided to all 20K+ attendees of the American Wind Energy Association’s annual Windpower conference. NAWP was so pleased with this paper that they requested that the AMS RES write more for them! The second white paper addressed turbulence and has been published in the fall edition. A third white paper on atmospheric stability will soon be published by NAWP. These papers can be found on the RES web site at <http://www.ametsoc.org/committeepages/re/>, and are a real benefit to moving the industry forward. The white papers are written in a technical manner suitable for all who work in the wind energy industry. The intent is to help bridge the gaps between engineers, meteorologists, business people, financiers, policy experts, etc. NAWP values its relationship with AMS, as illustrated in this statement:

“North American Windpower has enjoyed its relationship with the American Meteorological Society as the organization has helped to broaden its coverage substantially. With article topics ranging from wind shear to stability, AMS has lent a scientific credibility in our assessment and forecasting coverage, which in turn, added to the magazine’s standing in the wind industry.”

A poster about this series of white papers will be presented at the 4Energy conference in Austin.

### **Plans: Energy Committee (EC) and Renewable Energy Subcommittee (RES)**

The EC and RES are organizing and will host the Fourth Conference on Weather, Climate, and the New Energy Economy (4Energy), Jan. 2013, Austin. Abstracts were due August 1. This conference will be held over a three-day period during the AMS Annual Meeting.

The EC has created three subcommittees to focus on certain goals for the 4Energy.

- 1.) Outreach to the Utility Community – to encourage more presentations that engage the utilities. The committee is investigating the possibility of a Town Hall Meeting focused on utilities.
- 2.) Promote AMS Annual Meeting to the Broader Energy Community – to promote Annual Meeting energy community (and to recruit new members to AMS). The committee is also planning a networking event and will be seeking sponsorship.
- 3.) Education – to engage the student conference and to evaluate whether the EC will hold a short-course at the 2013 meeting.

4Energy has been approved to do a joint session with the MJO Symposium and Climate Change Symposium.

The RES plans to develop a web page with resources for authors preparing manuscripts about wind energy research to minimize the likelihood of their results being misunderstood and misrepresented by the press and public. The RES plans to write at least one more white paper for publication in NAWP.

## Intelligent Transportation System (ITS) and Surface Transportation Committee (ST)

	Member	Organization	Term Ends Jan.	Commercial / Private	Agency / Gov't	Academia / Lab
1	James Koermer, Chair	Plymouth State University	2015			X
2	Tina Greenfield	Iowa DOT	2013		X	
3	Mark Askelson	University of North Dakota	2013			X
4	Chaz Harris	Noblis	2013		X	
5	Kevin Petty	Vaisala	2013	X		
6	Elliot Abrams	AccuWeather	2013	X		
7	Brenda Boyce	Mixon-Hill	2013	X		
8	Jeremy Duensing	TELVENTdtn	2014	X		
9	Steve Conger	AvaTerra Services/Iteris, Inc.	2014	X		
10	Kathy Osborne	Meridian Environ. Tech., Inc.	2014	X		
11	Curtis Marshall	NOAA/NWS	2015		X	
12	Mike Chapman	NCAR	2015			X
	<i>Ex Officio</i> , Chair, ITS America Weather Information and Applications Special Interest Group - Art Handman					
	<i>Ex Officio</i> , Chair, Transportation Research Board Task Force on Surface Transportation Weather - Wilf Nixon					
	<i>Ex Officio</i> , Federal Coordinator for Meteorology or designee – Judson Stailey					
	<i>Ex Officio</i> , FHWA – Paul Pisano					

### Accomplishments: Intelligent Transportation Systems/Surface Transportation (ITS/ST)

The ITS/ST Committee meetings for 2012 to date have been by teleconference. The first meeting of the year was conducted on 12 Jan, since attendance of the Committee was minimal at the Annual Meeting in New Orleans. Topics and activities covered at this meeting included the following:

- A report on the joint ITSA/AMS IST/ST Meeting in Orlando, where much of the focus was on connected vehicles and mobile observations,

- Chair transition from Ed Boselly, who started the meeting, to Jim Koermer, who ran the rest of the meeting,
- FHWA reports on their Connected Vehicle Initiative (CVI) and updates on *Clarus* and MDSS,
- Update on transportation-related sessions for the upcoming AMS Annual Meeting in New Orleans,
- Update on progress of updating the Committee web site,
- Information on upcoming TRB and ITSA conferences and meetings,
- The new Mobile Observations Subcommittee and final Terms of Reference (TOR) document and call for volunteers or suggested volunteers, and
- Accolades to Ed Boselly for his years of service to the Committee

The second AMS ITS/ST teleconference meeting of 2012 was conducted on 20 Apr. Items covered included the following:

- FHWA updates on budget issues, future of *Clarus*, upcoming fall stakeholder meeting, and new additional FHWA responsibilities for Paul Pisano,
- AMS EIPT Committee and session, entitled “Road Weather Applications” to broaden the range of possible topics,
- The Committee website nearing completion—awaiting an historical narrative portion from Ed Boselly, then Committee review,
- Upcoming TRB and ITSA meeting updates,
- Mobile Observation Subcommittee finally populated and names to be submitted to AMS for approvals,
- Need for updating information on several members on the AMS STAC page roster,
- Possible blog page for sharing information
- Suggestion for a BAMS article on Surface Transportation by the Committee
- Concerns of no mention of surface transportation on the NOAA “Weather Ready Nation” presentations at the AMS Community Meeting, focusing on this topic.

The committee had additional conference call meetings on July 26 and Oct 26. Among others things, they discussed the proposed BAMS article on surface transportation by the committee as well as their plans for a session at the 2013 AMS Washington Forum. The BEED Chair and CWCE Commissioner approved the nominees for the Mobile Observations Subcommittee, and the ITS/ST plans to spin up this effort.

### **Plans: Intelligent Transportation Systems/Surface Transportation (ITS/ST)**

- The AMS ITS/ST Committee will establish a working group to develop a BAMS article for later Committee review.
- The ITS/ST Chair will speak with the BEC chair about possibly addressing surface transportation in the NOAA Weather Ready Nation presentation at the Summer Community Meeting.
- The ITS/ST plans to publish a web site, and possibly a blog.

The chair of the ITS/ST is organizing and will chair the session and panelists.

## Water Resources Committee

### Water Resources Committee Membership for 2012

	Member	Organization	Term Ends Jan.	Commerci al / Private	Agency / Gov't	Acade mia / Lab	Student
1	Tim Schneider, Chair	NOAA NWS	2015		X		
2	Dave Easterling	NOAA/NCDC	2015		X		
3	Adam Parris	NOAA/CPO/RISA	2015		X		
4	James Rufo-Hill	Seattle PUC	2015		X		
5	Jared Bales	USGS	2015		X		
6	Ben Harding	AMEC Environment & Infrastructure, Inc	2015	X			
7	Ilse Gayle	OneRain	2015	X			
8	Dan Walker	Computer Science Corp.	2015	X			
9	Jay Day	RTI	2015	X			
10	Greg Characklis	Univ. NC	2015			X	
11	Rene McPherson	Univ. OK	2015			X	
12	Miguel Medina	Duke Univ.	2015			X	
13	David Yates	NCAR	2015			X	
14	Jeanine Jones	California Dept. of Water Resources	2015		X		
	Curtis Walker (graduate student)	Univ. Nebraska at Lincoln	2015				X
	<i>Ex Officio</i> , Chair, ITS America Weather Information and Applications Special Interest Group - Art Handman						
	<i>Ex Officio</i> , Chair, Transportation Research Board Task Force on Surface Transportation Weather - Wilf Nixon						
	<i>Ex Officio</i> , Federal Coordinator for Meteorology or designee – Sabrina Tajeron						
	<i>Ex Officio</i> , FHWA – Paul Pisano						

## **Accomplishments: Water Resources Committee**

The AMS BEED Water Resources Committee (WRC) was established in 2012, and we had our inaugural meeting on May 7, 2012. In our initial discussion a number of important themes emerged, including: climate (climate change and adaptation); socio-economic impacts, risks, benefits and vulnerabilities; water resources planning and analysis; extreme events; meteorology and atmospherics (as relevant to hydrology); water quality; coastal issues; water resources management and uncertainty; how to better inform policy and politics.

Since our initial meeting, the WRC has met essentially on a monthly basis. In response to guidance from the CWCE and the BEED, our new committee has already grown to fifteen members including Ms. Anna Wilson, a PhD candidate at Duke University. We are seeking 1-2 more students to comply with AMS Council policies and to engage the younger generation in this professional work.

Even though we've only been in existence a short while, the committee has begun to undertake a number of concrete activities, which include:

- We are developing a working relationship with the American Society of Civil Engineers' (ASCE) Committee on Adaptation to Climate Change (CACC). In the near term we are discussing how the WRC might provide a coordinated, expert review of key sections of a white paper "*Bridging the Gap between Climate Change Science and Civil Engineering Practice*", by acting as a "review moderator", and tapping AMS and related climate experts and synthesizing results. It is thought that this activity may evolve into a long-term collaboration. It should also be noted that, at present, we have three members that sit on both committees
- Our committee is actively contributing to the planning of the 2013 AMS Annual Washington Forum; we are organizing a session entitled "*Averting a National Water Crisis*"
- We have had some dialogue with BEP-Annual Partnership Topic (APT) Committee on Integrated Water Resources.
- We briefed the Western Governor's Association, Western States Water Council (WSWC) on our committee's activities at their *Extreme Weather Events Workshop* (July 30-August 1, 2012). Three priorities of mutual interest and synergy were identified: (i) better use of hydroclimate data/networks; (ii) implementing a vision for 21st century observations of extreme precipitation; and (iii) improving intra-seasonal to inter-annual predictions.

## **Plans: Water Resources Committee**

In addition to the activities noted above, e.g., collaboration with the ASCE and WSWC, as well as participating in the 2013 AWF, we are now beginning to consider developing a series of white papers that explore the water-weather-climate interface. We also expect to establish a web presence for the WRC in the very near future.

## **Additional Plans for the BEED in 2013**

**A new Financial Weather/Climate Risk Management Committee:** The BEED plans to develop a new committee that addresses the nexus of financial markets and meteorology. The person deemed Chair in Jan. 2012 was over-committed with work obligations, so a new Chair, Kevin Stenson of the MeteoGroup, will take over this effort. Matt Coleman and Heidi Centola will be members and will help Kevin recruit additional members. In 2012, Matt drafted a TOR that the BEED Chair and CWCE commissioner reviewed for comments. The TOR is expected to be finalized in 2013.

**A new international committee,** chaired by Angel McCoy, is being spun up. Initial efforts of the committee will be to define goals, draft the Terms of Reference, support upcoming activities at the 2013 AWF, and comply with the steps necessary toward official AMS committee membership. Six people have expressed an interest in joining, many from developing nations.

**Additional suggestion for improved functioning within the committees of the BEED:** The BEED Chair has recognized that new committee chairs are not aware of the mid-year and annual reports to which they are expected to contribute, along with the requirement to recruit new members each fall and update committee membership tables. In order to redress this problem, the BEED chair plans to discuss this at a BEED meeting early in 2013.

(end)





## **Board on Enterprise Communication**

### **2012 Final Report**

**December 3, 2012**

**Chair: Betsy Weatherhead, U. Colorado      Past Chair: Veronica Johnson, WRC-TV**

The Board on Enterprise Communication (BEC) continues to be a very active board, with a large emphasis on bridging communication between public, private and academic sectors for communities that are either new or evolving. Current membership of the BEC includes: Heather Lazrus (NCAR), Eric Webster (ITT), Joel Cline (NOAA), Ellen McCray (NOAA), Sharon Abbas (ITT), Tom Fahey (Capitol Consulting), Scott Rayder (UCAR) and Richard Eckman (NASA). The BEC suffered the unexpected and great loss of Ken Reeves from AccuWeather. The BEC continues to look for new members for participation.

**Sub-committees:** The BEC has two long-standing subcommittees: Ad Hoc Committee to Improve Climate Change Communication (CICCC) led by Ray Ban (The Weather Channel), Paul Croft (Kean University), and Andrea Bleistein (NOAA); and Climate Services Committee (CSC) led by Ed Olenic (NOAA-CPC), Holly Hartmann (U. Arizona), John Dutton (Prescient), Paul Llanos (World Climate Data Monitor), Andrea Ray (NOAA), Phil Pasteris (Nat'l Integrated Drought and Information Services), Mark Brooks (NC State Climate Office).

Ad Hoc Committee to Improve Climate Change Communication (CICCC) Co-chaired by Ray Ban and Andrea Bleistein. Since the 2012 Annual AMS Meeting, CICCC focus has been on developing a "regional" event in the Washington, DC area that would build on the Workshops held in MSY. The event will take place on Thursday, October 11, 2012 at the AAAS building, 1200 New York Ave., Washington, DC. As in New Orleans, CICCC will partner with the Conflict Management experts at George Mason University.

Committee on Climate Services Chair, Ed Olenic. The CCS met in New Orleans at the Annual Meeting and was largely consumed by activities related to the development of an AMS Policy Statement on Climate Services in conjunction with Bill Hooke of the AMS staff. The statement is nearing final

completion as of June. In addition, a potential candidate to become the next CCS Chair has been offered the position with acceptance

### **Additional BEC Activities**

AWF Press Events Past-BEC Chair, Veronica Johnson. Each year the BEED organizes the AMS Washington forum (AWF) in April. And each year, the AWF is successful and reaches many in the climate and weather industry. This year we wanted to expand our reach and gain press coverage, in some manner. We started by entertaining the idea of doing a press conference along with having a press release. The team members were Matt Parker (lead), Veronica Johnson (NBC/WRC-4), Ken Reeves (AccuWx (deceased)), Bob Ryan (WJLA), Jason Samenow (Capitol Weather Gang), Joe Witte (George Mason), Jana Goldman (NOAA), Chris Vaccaro (NOAA), and Gary Rasmussen (AMS). We soon realized we needed more time and resources, than what was available to launch a press conference. We were able to post a press release on the AMS home page and Facebook days before the event <http://www.ametsoc.org/boardpges/cwce/docs/2012-04/press-release.pdf> Over 1,000 people saw the post in under a week.

Greater success was realized when Veronica contacted the Kojo Nmandi Show in Washington, DC. Veronica was able to secure a spot on the local radio station WAMU for a 30 minute show, dedicated to “The Meteorological Community Responding to Devastating Weather... How can we Improve Readiness? That show took place on April 11th, 2012, the second day of the AMS Washington Forum and helped promote the event. Participants included Chris Strager of the NWS, Veronica representing NBC-4, WRC, and Bill Callahan of EarthNetworks. The show was posted as a podcast on the Kojo Nnamdi website <http://thekojonnamdishow.org/shows/2012-04-11/hurricanes-tornadoes-severe-storms-are-you-ready> and syndicated on Sirius XM Radio. The show also played in repeat broadcasts on NPR. The producer of the show, Ingalisa Schrobsdorff, was pleased with the audience participation, and since that event, a second show was held on August 21, 2012 dealing with climate services. The participants were Tom Karl, NOAA/NCDC, John Henz, CCM at Dewberry, and Christophe Tulou, a city planner in the Washington, DC region. The BEC’s work with the Kojo Nmandi Show is ongoing and will continue. The Board on Enterprise Communication will continue to find ways to reach out to not only our weather and climate community, but our local community and leaders. New leadership will be in-place for this team in 2013 as Veronica and Jacob Wycoff of the WeatherBug have agreed to Co-Chair this informal committee. A formal committee is planned under the proposed new CWCE structure.

**Summer Community Meeting 2012:** The most visible effort of the BEC is the Summer Community Meeting (SCM) held each year. This year’s SCM was held in Norman, Oklahoma on August 13-16, 2012. Betsy Weatherhead and George Frederick were the co-chairs; Joe Friday and Renee McPherson were the local organizing hosts. Themes of the meeting were communication and partnerships. Special topics that will be covered included: social media, state of the enterprise and data prioritization. The agenda and the advertisement for the meeting are included with this report as separate attachments.

The meeting was a strong success with over 150 participants, including unprecedented student involvement.

The title of the meeting was, “Weather Ready Nation: Communication and Partnerships to Meet the Challenges of Severe Weather”. This was one in a series of Weather Ready Nation meetings and the most public of all meetings to date. The opening panel asked for leaders of the enterprise to respond to the recommendations from the 2011 SCM. The panelists, including Tom Bogdan of NCAR, Laura Furgione of the NWS, Sandy MacDonald of NOAA, and Steve Root of the AWCI, highlighted recommendations for which they considered significant progress had occurred over the prior year. This format of communication, specifically, leadership responding to past recommendations, was very well received by participants.

Joe Friday led the sessions on the state of the enterprise. The state of the enterprise sessions focused on information gathered by survey in advance of the meeting and highlighted where there was high satisfaction of areas where considerable work was left to be done. There was great appreciation for the effort and value of the results from this activity. It is possible that continued surveys in the future could allow insight into how the community is changing over time. Comments during these sessions on why women were not advancing beyond entry level led to encouragement of the issue being addressed more directly at the Annual Meeting in Austin, TX. A draft version of the “state of the enterprise” report is attached for review.

David Green and Jen Sprague led sessions on social media with an emphasis on social media as two-way communication, particularly in disaster response. Steve Root worked toward creating video vignette and involved students in gathering video during the summer meeting.

The final message from the summer community meeting was that the weather enterprise is critical infrastructure for economic health, economic recovery and economic resilience. This was unanimously agreed on as a message to take the decision makers. This message is in some ways a contrast to the prior message of “saving lives and property” and was viewed as more timely given the financial situation of the country.

Future Action: Communication of the message that came out of the Summer Community Meeting to decision makers.

Future Action: Involvement in as broad a sector as possible in the next Summer Community Meeting through more formal and widely disseminated solicitation of ideas and planning committee participants.

**Student Involvement:** New to the BEC has been the incorporation and the active involvement of students in the planning of the 2012 Summer Community Meeting. Incorporation of students into CWCE activities was a direct result of AMS Council guidance for 2012 and beyond. The students who volunteered were: Emma Fagan, Amanda Ilk, Branden Katona, Charles Kuster, David J. Gagne, Jessica Voveris, Robert Gottlieb, Stephanie Hoekstra, Eric Holthaus and Virginia Silvis. It should be noted that Emma Fagan will become a student member of the CWCE Steering Committee starting in 2013. The students participated in the bi-weekly telecons of the planning committee and then additionally had

separate telecons, led by Gary Rasmussen during the off-weeks. The primary purpose of these calls was to educate the students as to how planning takes place for AMS meetings. Fortuitously, one of the themes of this meeting was social media and these students were particularly adept at Twitter, Facebook and Linked-In. As a result, the students set up a Facebook page to help advertise meeting. Each session had a student associated with it. In some cases the students did the introductions, in others they worked to take notes or help with the audio-visual logistics. Joe Friday actively incorporated the students to his sessions as presenters of information and panelists. The students worked at the meeting in support of the AMS staff in addition to helping plan and advertise the meeting. Funding for their registration fees was provided by Tom Bogdan, President of UCAR and Joe Friday, as a personal donation. Vaisala supported a pizza event which was well attended by students and attendees and which helped bridge the gap between the generational perspectives. It should be noted that the effort to organize the AMS Summer Community Meeting increased significantly by the incorporation of students. However, the benefit of the student involvement was more than worth the additional effort. Many participants reported enjoying and appreciating the fresh perspective from the students.

Future Action: Continued and perhaps expanded involvement of students in Summer Community Meeting Planning, if time allows.

### **Communication with Decision Makers**

The summary statement from the AMS Summer Community Meeting was taken to Capitol Hill on September 12, 2012 as a part of the Geosciences Congressional Visits Day. The weather enterprise is “critical infrastructure” for the nation’s economic health, economic recovery and economic resilience. Betsy Weatherhead led a group of over 28 AMS members to talk to congressional leaders and their staff. With significant help from AMS policy office members Caitlin Buzzas and Ellen Klicka, UCAR’s Mike Henry and Tom Fahy of the Capitol Group, groups of AMS members spoke to over fifty Congressional offices on the importance of the weather enterprise. The leave-behind information was a one-page document which is included as an attachment. The AMS members reported several common themes from the many visits.

### **Communication to Improve Weather Forecasting Capabilities**

There is increasing concern among the AMS community that the roles of the public, private and academic sectors will be changing significantly in the coming few years due to increasingly changing fiscal landscapes. Divergent ideas were starting to develop within the enterprise on the direction and specifics of change. Several discussions and meetings were called within the BEC to address these issues in a more unified manner. Betsy Weatherhead led a discussion in Boulder on September 6, 2012, bringing together key members of private industry and NOAA/OAR. The concept of working more closely with US private companies on research weather models before they transition to operations was identified as a fruitful, potentially mutually beneficial path forward. A second meeting was held on November 29, 2012 in Silver Spring, MD with a broader set of participants including academia. This group of forty leaders from the weather community explored three main issues: alternative roles for the sectors, issues associated with big data, and recent advances in forecasting capabilities. This second

meeting resulted in at least two priorities emerging as the most pressing. 1) Current computing and transmission capabilities are not sufficient for current needs and this gap will become more critical in the coming few years. 2) The private sector is ready to play a larger role with the development and testing of research models. The reports from each of these two meetings are attached.

Future Actions: Expanded communication of the ideas developed in these sets of meetings to the more broad AMS community through the AMS Annual Meeting as well as other venues.

**Annual Meeting 2012 Events:**

*Summer 2011 Town Hall:* Monday, 12:15pm, Room 244

*CSC:* Monday, 8:00 a.m.

*NoN:* Tuesday: Tuesday 7:00 a.m., Bridge Room, Hilton

*BEC:* Tuesday, 10:30 – Noon, Magnolia Room, Hilton

*CICCC:* Tuesday 1:30 Rosedown Room, Hilton

*Summer 2011 Summary:* Wed 10:45, Room 245

*Env. Security:* Wednesday, 4pm Pelican Room, Hilton

(end)



# AMS Commission on the Weather and Climate Enterprise

## Activities of the BOARD ON ENTERPRISE PLANNING (BEP)

December 5, 2012

Submitted by: Christopher Strager and Andrea Bleistein  
Co-Chairs, BEP; NOAA's National Weather Service

Member	Position	Term	Email
Laura Furgione* Christopher Strager / Andrea Bleistein	NOAA, NWS	Chair 2011-2013, Co-Chairs 2012- 2016	<a href="mailto:laura.furgione@noaa.gov">laura.furgione@noaa.gov</a> <a href="mailto:christopher.strager@noaa.gov">christopher.strager@noaa.gov</a> <a href="mailto:andrea.bleistein@noaa.gov">andrea.bleistein@noaa.gov</a>
John Egentowich	DOD, AFW	2012	<a href="mailto:John.Egentowich@pentagon.af.mil">John.Egentowich@pentagon.af.mil</a>
Tom Paylor	RenaissanceRe Corporation	2012	<a href="mailto:tcp@renreim.com">tcp@renreim.com</a>
Don Winter	CSC	2013	<a href="mailto:dwinter9@csc.com">dwinter9@csc.com</a>
David Green	NOAA, NWS	2013**	<a href="mailto:david.green@noaa.gov">david.green@noaa.gov</a>
Bruce Bailey	AWS Truepower	2013**	<a href="mailto:BBailey@awstruepower.com">BBailey@awstruepower.com</a>
Bruce Jones	Midland Radio	2013	<a href="mailto:bjones@midlandradio.com">bjones@midlandradio.com</a>
George Smith	Riverside	2014**	<a href="mailto:george.smith@riverside.com">george.smith@riverside.com</a>
Ana Barros	Duke University	2014**	<a href="mailto:barros@duke.edu">barros@duke.edu</a>
John Schneider	NOAA, OAR	2015	<a href="mailto:John.P.Schneider@noaa.gov">John.P.Schneider@noaa.gov</a>
Wendy Thomas	AMS	2015	<a href="mailto:wthomas@ametsoc.org">wthomas@ametsoc.org</a>

\* Laura Furgione's term was completed by Strager/Bleistein

\*\* note – these members serve as co-chairs of an APT and have agreed to serve on the Board until the APT has been finalized.

### Board on Enterprise Planning

With the retirement of Jack Hayes from the National Weather Service in May 2012, Laura Furgione became Acting Director of the NWS. This change impacted the AMS Commission on the Weather and Climate Enterprise (CWCE), and its BEP. Laura has accepted the standing position on the CWCE's Steering Committee as Director of the NWS and recommended that Chris Strager become the Chair of the CWCE's Board on Enterprise Planning (BEP) for the remainder of her term (ends at the 2013 AMS Annual Meeting). CWCE Commissioner, Matt Parker, extended Laura's recommendation to include not only Chris but Andrea Bleistein as Co-

Chairs of the BEP for a term from 2012-2016! BEP members also welcomed Chris and Andrea to the BEP as the Board continues moving forward with the multiple APT teams and planning for the upcoming First Symposium on the Weather and Climate Enterprise to be held in Austin next January.

A draft revised Terms of Reference was disseminated and approved by BEP members and sent to the CWCE Commissioner in August 2012 but no action is necessary at this time to formalize approval. This is because the structure of the CWCE may be changing in the near future.

The AMS BEP has two active annual partnership topics committees; 1) Offshore Wind and 2) Integrated Water Resources. Two new standard APTs were accepted after the 2012 Annual AMS Meeting in New Orleans; 1) Solar Energy Forecasting, and 2) Ecological Forecasting.

Another potential APT, Research and Operations for Human Health, was not accepted as an APT, but was recognized as an emerging area.

As of November 2012, the BEP was informed by the CWCE commissioner of a proposed restructuring of the CWCE which will directly impact the BEP. In short, the BEP is slated to become the Board on Enterprise Strategic Initiatives which would house some already existing committees (Network of Networks, Climate Services, and Water Resources). In addition to this restructuring, the CWCE is proposing to end the effort of APTs. This has immediate and direct implications for the proposed 2012 APT of Ecological Forecasting which has not really started. In addition, with regards to the Solar Energy Forecasting, Integrated Water and Offshore Wind APTs - there is discussion on streamlining these efforts into other existing committee work - Renewable Energy Committee and the Water Resources Committee. Formal approval of the CWCE restructuring is pending but the BEP has moved forward to streamline the APTs already into other existing efforts. There is a proposal to create an ad hoc Ecological Forecasting Committee to address the needs of the enterprise. More will come as we move into 2013.

The BEP has scheduled a committee meeting at the AMS Annual Meeting Austin, TX for Tuesday, January 8, 2013 at 9:30-10:30am in the Hilton Austin Room 404. The future of the BEP will be discussed in the context of its proposed new name, Board on Enterprise Strategic Initiatives.

### **APT Committee on Offshore Wind** (Bruce Bailey, David Green)

This Task has been a victim of a rapidly changing political and investment environment on the viability and expansion of offshore wind. Progress has been made toward assessment of resources and negotiations for leasing and environmental impact planning. At the same time the last few quarters have seen a contraction of the terrestrial wind sector and increasing attacks on the cost estimates for offshore operations. This has been also driven by alternative sources of relatively inexpensive energy from natural gas. Nevertheless, the ATP co-leads and key contacts continued to leverage ongoing activities of stakeholders from DOE, BOEM, state, academic and commercial partners to identify their roles and priority met-ocean data and modeling issues. The wind industry recognizes the need for additional observations and models to provide “bankable” data for investment purposes but has not validated the ability to invest in forecast improvements.

Focus during the last month was placed on Chapter 3 of the report, “Role of Met-Ocean Data in Addressing Project planning, Design and Operational Needs.” Bruce Bailey completed a draft Chapter for circulation to the wider group in May. AWS Truepower provided copies of their DOE-partnership study entitled “Preliminary Inventory of Met-ocean Data Sources for the United States” for review to identify additional usable data sets. On February 7, DOE, meeting with Federal partners on draft Funding Opportunity Announcement (FOA) on “US Offshore Wind: Advanced Technology Demonstration Projects,” identified priority issues in data sharing, standards and governing policies (Final FOA posted March 1). The same week, the Utility Wind Integration Group meeting identified operating impacts and integration issues, including short-term ramp forecasting and flow regimes relevant to our study. On February 29, Dr. Green provided a report to the DOE-lead Interagency Working Group on the Resource Assessment on the AMS APT, where highlights and feedback included interest in working toward a standard one-stop data portal.

By August 2012, the APT committee was nearing completion of their final chapters. The plan was to send a first-cut of draft to BEP for review in Fall 2012 / Winter 2013.

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### **APT Committee on Integrated Water Resources** (George Smith, Ana Barros)

The Integrated Water Resources (IWR) APT held their 2nd overall team meeting via conference call on May 30, 2012. Tim Schneider was introduced as the chair of the newly convened AMS Board on Enterprise Economic Development (BEED) Water Resources Committee. The BEED WR committee has existed for several years, conceptually, but is now reinvigorated with Tim as chair. Tim and George have agreed to attend each other’s respective team meetings to facilitate coordination across these two complementary AMS water committees. Tim provided some background on the BEED WR committee, which is intended to bring public, private, and academic components of the enterprise together.

Status of the IWR APT subcommittees:

**New and enhanced integrated water resources services** – Tom Graziano noted that the major activity of this subcommittee to date has been initial scoping of the survey.

**Scientific advances required to deliver these services** – Mike Dettinger stated that this subcommittee has had some schedule issues in getting together but he and Bill Charley did meet and discussed issues such as: the relationship of IWRSS to the work of the APT (it’s a part but far from all of the science needed), potential use of case studies (which could be site specific to address particular needs), and the National Water Modeling System being proposed to support a collaboration of Federal and Academic water activities.

**Potential benefits of new and enhanced water resources data and information** – Kathleen Miller led this discussion and indicated the subcommittee had met and discussed how weather information underlies many critical decisions in, for instance, the power industry, flood



forecasting, and risk management. This subcommittee's work will benefit from results of the user survey.

**Barriers to the use of water resources data and information by the weather and water communities** – Levi Brekke said this subcommittee met on April 6 and discussed a list of customer concerns which he will forward to the team.

**Commercial products and applications enabled by water resources services** – This is another subcommittee which will benefit from the results of the proposed user survey. It has not met yet and we are reassessing who will chair this group.

**Business models (public-private-academic partnerships) needed to enable and accelerate the generation and use of water resources data and information** – Jeanine Jones has graciously accepted the chair of this subcommittee. Jeanine is also on the BEED WR Committee which will prove valuable as there are ties between this APT subcommittee's work and the BEED activities.

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### **APT Committee on Solar Energy Forecasting** (John Schneider)

The original proposal for a Solar Forecasting APT was submitted by Kevin Lynn of DOE. He cited the increase in solar renewable energy in recent years as well as the likelihood for continued growth of solar renewable energy. The APT was adopted by the BEP at the Annual Meeting in January, 2012. John Schneider of NOAA agreed to help coordinate the efforts through the BEP process.

Since January, 2012, activities with respect to solar renewable energy have increased. DOE has announced a funding opportunity with a budget of \$9M to address solar forecasting. In addition to DOE's recent investment in this issue, NSF is reviewing renewable energy proposals which should be announced by the end of the summer.

The recent activities in solar renewable energy, along with the strong interest from those who have been approached on the issue of serving on the APT indicate that the AMS' role in this at this time is both important and will be welcome.

In direct preparation for the APT activities, a draft APT team charter has been written for review by the first APT members and then by the AMS BEP Chair and potential APT members have been identified.

### **Future Plans**

January, 2013: Meeting at AMS annual meeting to review progress and finalize goals and timeline for APT activities. January, 2014: Presentation of final APT report (to be confirmed).

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**APT Committee on Ecological Forecasting** (Champions – Paul Sandifer and Juli Trtanj)

The original proposal for a Ecological Forecasting APT was submitted by Dr. Paul Sandifer of NOAA and was presented by Juli Trtanj also of NOAA at the January AMS meeting. A description from the nomination is included below:

*“The security of ocean and coastal communities and their economies are increasingly threatened by harmful algal blooms, naturally-occurring and introduced infectious diseases, and chemical pollutants that may occur in waters or seafood. An ecological forecasting approach combines observing system data on the physical and biological parameters of ocean, coastal and Great Lakes waters to develop predictions of the likely occurrences of these dangerous biological conditions in time to take preventative actions.”*

The APT was adopted by the BEP at the Annual Meeting in January, 2012. During the fall of 2012, further discussions with Paul Sandifer, Chris Strager, Andrea Bleistein, and Commissioner Parker revealed that this effort was better suited for an ad hoc committee.

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**Update on the topic of Social Media and Hazard Mapping** (David Green and Veronica Johnson, Past Chair of the BEC)

The Social Media and Hazard Mapping Topic proposal from David Green (NWS) and Veronica Johnson (NBC4) was accepted as a session at the 40<sup>th</sup> Conference on Broadcast Meteorology in Boston in late August.

**Update on the topic of Research and Operations for Human Health** (Wendy Marie Thomas, NOAA (formerly of the AMS Policy Program))

This summer a pilot valuation study was planned to assess the benefit or contribution that Earth observations supply to health early-warning systems.

(end)

(End of 2012 CWCE Annual Report)