

**Scientific and Technological Activities Commission (STAC)
Final Report for the AMS Council
December 20, 2013
Ward Seguin, STAC Commissioner
Mary M. Cairns, STAC Past-Commissioner
David Stensrud, STAC Incoming-Commissioner**

1. Introduction

The STAC annual report consists of three parts:

- A STAC membership renewal for the 2014 year (action required),
- An information section summarizing STAC activities during 2013 (action required on lectures), and
- A proposal to revise STAC procedures for evaluating Society award nominations (action required)

The body of the report is followed by four attachments:

- Membership of the STAC Boards and Committees (Attachment I)
- The Board and Committee individual reports for 2013 (Attachment II), and
- Three Committee reports which were not included in the 2012 report (Attachment III),
- Talking points for revising STAC procedures for evaluating Society award nominations. (Attachment IV)

2. Membership Renewal – Council Action Required

Each year, the STAC leadership works with AMS staff to renew its membership for the upcoming year. Members of STAC Boards and Committees can serve for up to two three-year terms, and students can be appointed for one or two year terms. This year, almost all Boards and Committees saw some members rotate off the boards and committees, and these individuals were placed by number new members. In addition, four individuals were elevated to chairs of their committees. STAC asks that the Council approve this slate of full and student members for terms noted in the tables of Attachment I.

3. Activities of 2013

3a. 2014 Lecture Nominations – Council action required

The following individuals were selected from all of the very deserving candidates to be put forth for Council consideration and approval.

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- Approve Dr. Gabriel Lau for the Bernhard Haurwitz Memorial Lecturer for 2015
- Approve Dr. P.C.D. “Chris” Milly for the Robert E. Horton Lecturer in Hydrology for 2015
- Approve Dr. Paul B. Shepson for the Walter Orr Roberts Lecturer for 2015

Note: reference the Awards Oversight Committee to the Council for citations and background information.

3b. STAC Conferences and Symposiums held during 2013

Specialty Conferences

- *11th Conference on Polar Meteorology - 29 April–1 May*
- *18th Conference on Atmospheric and Oceanic Fluid Dynamics - 17–21 June*
- *17th Conference on Middle Atmosphere - 17–21 June*
- *15th Conference on Mesoscale Processes - 6–9 August*
- *36th Conference on Radar Meteorology - 16–20 August*
- *10th Symposium on Fire and Forest Meteorology - 15–17 October*

Conferences held at Annual Meeting in Austin, Texas

- *29th Conference for Environmental Information Processing Technologies*
- *27th Conference on Hydrology*
- *25th Conference on Climate Variability and Change*
- *20th Conference on Applied Climatology*
- *19th Planned and Inadvertent Weather Modification*
- *17th Conference on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS)*
- *16th Conference on Aviation, Range, and Aerospace Meteorology*
- *15th Conference on Atmospheric Chemistry*
- *11th Symposium on the Coastal Environment*
- *10th Conference on Space Weather*
- *Ninth Annual Symposium on Future Operational Environmental Satellite Systems*
- *8th Symposium on Policy and Socio-Economic Research*
- *6th Symposium on Lidar Atmospheric Applications*
- *6th Conference on the Meteorological Application of Lightning Data*
- *Fifth Symposium on Aerosol–Cloud–Climate Interactions*
- *Fourth Conference on Environment and Health*
- *Third Conference on Transition of Research to Operations*
- *Third Symposium on Advances in Modeling and Analysis Using Python*
- *Special Symposium on the Next Level of Predictions in Tropical Meteorology: Techniques, Usage, Support, and Impacts*

- *Symposium on the Role of Statistical Methods in Weather and Climate Prediction*
- *First Symposium on Building a Weather-Ready Nation: Enhancing Our Nation's Readiness, Responsiveness, and Resilience to High Impact Weather Events*
- *IMPACTS: Major Weather Events and Impacts of 2012*
- *Symposium on Prediction of the Madden-Julian Oscillation*
- *Special Symposium on the Joint Center for Satellite Data Assimilation*
- *Special Symposium on the Transport and Diffusion of Contaminants from the Fukushima Dai-Ichi Nuclear Power Plant: Present Status and Future Directions*
- *Special Symposium on Advancing Weather and Climate Forecasts: Innovative Techniques and Applications*
- *Fifth Symposium on Aerosol-Cloud-Climate Interactions*

3c. STAC Support to the Editor of the Glossary of Meteorology

During 2013, Ms. Cairns (Chief Editor of the Glossary of Meteorology and Past Commissioner) requested review of a number of terms by various STAC Committees and Boards. The reviews were most often conducted by a single Committee or Board, but in some cases additional experts were appointed along with the Board or Committee to review a term. The main “lessons learned” from the activities so far is that requests for new terms typically take longer than a revision. It is believed it requires more resources by the reviewers to create the definition to be included. Ms. Cairns will be providing a more detailed report directly to the Publications Commissioner.

3d. AMS Statements Procedures Reviewed

There is general frustration regarding the AMS Statements process. There is difficulty in getting volunteers to help write statements; difficulty in communication with Council regarding statements; uncertainty in the role of Council members on drafting teams; lack of clear expectations; and overall limited buy-in from members in the Statement process. Thus, AMS Council established a committee in fall 2013 to review the process for preparing and updating AMS Statements and to make recommendations to Council on needed revisions to the Guidelines for Statements of the AMS document and to address the issues of recruitment of writing teams, statement management and tracking, training, and expectations. The 8-member committee met twice in fall 2013 and is moving toward a set of recommendations that would help clarify the Statement process and set up a regular cycle of Statement review and evaluation. The team also is developing a set of recommendations for tracking, training and elevating the visibility of Statements within the AMS to improve society members understanding of the role of Statements as part of the society's service activities.

3e. Request for meeting funds

Last year, a revised form was developed to allow Conferences and Symposiums to request up to \$1500 for student awards, student travel, abstract fees for guest speakers, invited speaker travel support and special activities. This new form has greatly clarified justification requirements for these grants. The table below reflects STAC sponsored conferences and symposiums funding requests made in 2013 for conferences held in 2013 or to be held in 2014.

<i>STAC Sponsored Conferences & Symposiums</i>	Amount Requested	Student Awards	Student Travel	Abstract Fee	Invited Speaker Travel	Special Programs
<i>Second Symposium on Building a Weather-Ready Nation</i>	1,500	800			700	
<i>Middle Atmosphere</i>	1500	600				900
<i>31st Conference on Hurricanes and Tropical Meteorology</i>	1500	100	1400			
<i>26th Weather Analysis and Forecasting</i>	1500	1500				
<i>18th Conference on Integrated Observing and Assimilation Systems for Atmosphere, Oceans and Land Surface</i>	1500	400	1100			
<i>Twelfth Conference on Artificial and Computational Intelligence and its Applications to the Environmental Sciences</i>	1500	450	785		170	95
<i>18th Joint Conference on the Applications of Air Pollution Meteorology</i>	1475	1000		475		
<i>10th Annual Symposium on New Generation Operational Environmental Satellite Systems</i>	900	900				
<i>Fourth Aviation, Range and Aerospace</i>	500		500			

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<i>Meteorology Special Symposium</i>						
<i>19th Conference on Atmospheric and Oceanic Fluid Dynamics</i>	1500	1200	300			
<i>16th Conference on Atmospheric Chemistry</i>	1500	700	800			
<i>Stanley Changnon Symposium</i>	1245			285	960	
<i>Don Johnson Symposium</i>	1045			1045		
<i>Environmental Interactive Processing</i>	1500					1500
<i>10th Fire and Forest Meteorology</i>	405			95	310	
<i>Environment and Health Conference</i>	1500	300	300	95	600	205
<i>28th Conference on Hydrology</i>	1500	450	1050			
<i>Major Weather Impacts of 2013</i>	1500			1000	500	
<i>17th Symposium on Meteorological Observations and Instrumentation</i>	1500		1500			
<i>Epstein Symposium</i>	1500					1500
<i>Fourth Symposium on Advances in Modeling and Analysis Using Python</i>	95			95		
<i>36th AMS Conference on Radar Meteorology</i>	1500	300		380		820
<i>Symposium on the Coastal Environment</i>	1500	500	750	250		
<i>The 6th Symposium on Aerosol–Cloud–Climate Interactions</i>	1500	400	1100			
<i>15th Conference on Mesoscale Processes</i>	1500	600	900			
<i>26th Symposium on climate change and variability</i>	600	600				
<i>27th Conference on Severe Local Storms</i>	1480	700	400	380		
<i>11th Space Weather Conference</i>	1500	380	750	370		

3f. STAC Annual Reports

Each year, the Boards and Committees that make up the Scientific and Technological Activities Commission prepare individual reports which are presented in Attachment II. It highlights numerous conferences and symposiums (see section 3b above) sponsored by Boards and Committees, and mentions numerous joint sessions held among sponsored programs and symposiums. It references six AMS statements which were worked, two of which were completed and approved by the Council. It calls out numerous awards given to members and students; and acknowledges the services of members who are rotating off the Boards and Committees as well as recognizes new members joining STAC. Four individuals will become Board/Committee chairs in 2014. New this year is STAC's support for the Glossary of Meteorology. Five Boards/Committees assisted the Glossary of Meteorology in updating word definitions. The activities of these Boards and Committees have been many and varied.

Last year, three reports were not included in the STAC annual report. These reports are included in this report as Attachment III.

3g. Orphan Conferences and Symposiums

Earlier in the year, we reported we had found homes for four orphan conferences/symposiums not affiliated with an AMS Board or Committee. This fall, arrangements were made for two more. The Conference on Transition of Research to Operations Research to Operations Symposium will now be sponsored by the Board on Environmental Information Processing Technologies. The Symposium on Prediction of the Madden-Julian Oscillation: Impacts on Weather and Climate Extremes will now be sponsored by Committee for Tropical Meteorology and Tropical Cyclones.

3h. Travel Funds for STAC Committee Students

Last year, Ms. Cairns, STAC Commissioner, made a strong push to have each Board and Committee have at least one student member. A few of these Boards and Committees wanted their students to be able to attend the Annual Meeting. As a result, the current STAC Commissioner worked with Ms. Armstrong, Director of Development, to encourage student members to compete for Annual Meeting work assignments and Society travel grants. As a result, four STAC students received travel grants.

Name/School	Committee
Alison Nugent/Yale University -	Mountain Meteorology
Nicholas Weber/U. of Illinois -	Board of Data Stewardship
Amanda Sheffield/Colorado State U.	Planned & Inadvertent Weather Modification
Christina Liaskos/U. of Maryland	Meteorological Aspects of Air Pollution

4. Revising AMS procedures for evaluating Society award nominations - Council Action Required

The STAC Commissioners are proposing revisions the AMS procedures for evaluating Society awards assigned to STAC Boards and Committees (Attachment IV). The purpose is to include representatives from other Commissions, standardize the review procedures across awards, and improve reporting. The proposal includes establishing standing award committees for each award (one each for a total of 5) similar to practices of the other Commissions. This proposal will be presented to the Council at the February 2, 2014 Annual Meeting.