2021 Weather Analysis and Forecasting Committee Annual Report

Conference Organization
The Special Symposium on Global and Mesoscale Models, organized in 2020 and chaired by Stephanie Avey, was held at the virtual 2021 101st AMS Annual Meeting.

Led by conference chair Aaron Hill, with co-chair Stephanie Avey and a program committee of over ten members from across the field, the Weather Analysis and Forecasting Committee has been planning the joint 31st Conference on Weather Analysis and Forecasting/27th Conference on Numerical Weather Prediction, to be held with the 102nd AMS Annual Meeting in Houston, TX in January 2022. Approximately 280 abstracts were submitted to sessions hosted by our conferences, with many sessions to be held jointly with other conferences and symposia. The Weather Analysis and Forecasting Committee also agreed to serve as the sponsoring organization for the 1st Symposium on Earth Prediction Innovation and Community Modeling, also to be held with the 102nd AMS Annual Meeting in Houston, TX in January 2022.

Finally, we began to plan the joint 32nd Conference on Weather Analysis and Forecasting/28th Conference on Numerical Weather Prediction, to be held jointly with the next Conference on Mesoscale Processes in mid-2023 at a domestic location to-be-determined. Our efforts will be led by conference chair Stephanie Avey, with co-chairs Alicia Bentley and Matt Beitscher.

AMS Statement on Weather Analysis and Forecasting
Supported by a statement revision team of twenty-six members from across the weather enterprise, the Weather Analysis and Forecasting Committee has spent the year preparing a revised AMS Statement on Weather Analysis and Forecasting. An initial draft was prepared in spring and summer 2021, was approved by the AMS Council in early fall 2021, and was made available for AMS member review shortly thereafter. At the time of writing, a revised version that incorporates AMS membership feedback has been prepared, and we expect to submit this to the AMS Council for their final approval in early December 2021.

Society-Level Awards
The Weather Analysis and Forecasting Committee is responsible for reviewing, in whole or in part, three AMS Society-Level Awards, the Award for an Exceptional Specific Prediction, the Charles L. Mitchell Award, and the Francis W. Reichelderfer Award.

Two nominations were received for the Award for an Exceptional Specific Prediction. After reviewing these nominations, the committee (chaired by Victor Gensini) recommended not awarding this award this year. One nomination was received for the Charles L. Mitchell Award. After reviewing this nomination, the committee (chaired by Andrew Winters) recommended awarding this award to Daniel Kottlowski of AccuWeather. Finally, no nominations were received for the Francis W. Reichelderfer Award, and thus no recommendation was made for this award.

Following this year's awards review period, the Weather Analysis and Forecasting Committee reviewed the terms for each of these awards. We have begun to prepare a recommendation to the AMS Awards Oversight Committee to change the Award for an Exceptional Specific Prediction's terms to require only one letter of recommendation (rather than three) and to include a forecast's impacts in the award description. We are considering whether to prepare recommendations to the AMS Awards Oversight Committee to change the terms for the Charles L. Mitchell and Francis W. Reichelderfer Awards.

STAC-Level Award

The Weather Analysis and Forecasting Committee solicited nominations for the STAC-level Weather Analysis and Forecasting Committee Early-Career Achievement Award. The committee recommended, and STAC leadership approved, Dr. John Allen of Central Michigan University as this year's award recipient "[for] significant early career contributions in advancing our understanding of severe convective storms and climate connections for forecaster applications." Dr. Allen will formally receive this award at the 102nd AMS Annual Meeting in Houston, TX in January 2022.

Diversity, Equity, and Inclusion Initiatives

The Weather Analysis and Forecasting Committee hosted Melissa Burt, chair of AMS's Culture and Inclusion Cabinet, during its June committee meeting to learn more about society-level diversity, equity, and inclusion initiatives. In its subsequent meetings, the committee discussed potential activities in which it could engage (e.g., advertising existing mentoring programs, creating profiles of individuals in the weather enterprise from traditionally underrepresented groups, continuing to be intentional about the membership of our committee and conference planning committees, engaging in targeted outreach to minority-serving institutions and other AMS boards and commissions, etc.) to advance diversity, equity, and inclusion in weather analysis and forecasting.

Membership

The Weather Analysis and Forecasting Committee added seven new members for 2021, including four professional members (Victor Gensini, Philippe Papin, Sarah Perfater, and Rosimar Rios-Berrios) and three student members (Tomer Burg, Keenan Eure, and Daniel Lloveras). We also recruited a new professional member, Jon Poterjoy, for a three-year term to begin in January 2022, replacing Shawn Milrad at the completion of his second three-year term.

Our membership includes ten members from academia, eight members from the U.S. federal government, four members from the private sector, and four students. Twelve of our twenty-six members are women, and five of our twenty-six members identify as a member of an ethnic group traditionally underrepresented in the atmospheric sciences.

Glossary Reviews

The Glossary Subcommittee, led by Jennifer Tate, prepared definitions for four new AMS Glossary terms (windstorm, heat dome, digging, lifting) and revisions for three existing AMS Glossary terms (storm, dry-adiabatic lapse rate, snap).

<u>Committee Meetings</u>
The Weather Analysis and Forecasting Committee held seven virtual meetings in 2021, one each in January, March, June, July, September, October, and December. Our scheduled April meeting was canceled due to a lack of business.

<u>Other Committee Activities</u>
The Weather Analysis and Forecasting Committee has active social-media and webmaster committees. The former, headed by Katie Magee and Aaron Hill (who stepped down from this role in November), has used social media to advertise for our conferences, awards, and new-member recruitments, disseminate information about the committee's membership and other committee activities, and share information from other sources about noteworthy high-impact weather events. The latter, headed by Matt Beitscher, has maintained our committee's STAC webpage.

We have also engaged in a number of other activities, including:
- In January, the Weather Analysis and Forecasting Committee discussed a proposal for a new STAC Board on Data Assimilation. This discussion spurred a subsequent meeting with STAC leadership and the IOAS-AOLS conference organizers to identify ways to improve the long-term sustainability of the IOAS-AOLS conference (which is the only conference not formally associated with an AMS board or commission).
- In March, we met with our new STAC Commissioner, Kristie Franz.
- In June, we discussed a proposal for a new AMS journal, Artificial Intelligence for Meteorological Sciences. While the committee recognized the value of and intent for this proposed journal, the committee feared that separating artificial-intelligence studies into a new, method-focused journal (and thus away from scientific journals like *Weather and Forecasting* and *Monthly Weather Review*) would be detrimental to the existing journals. Consequently, the committee declined to add its support to this proposal, although it did provide its feedback to the lead proposer (Amy McGovern) so that she could strengthen the proposal before it was considered (and ultimately approved by) the AMS Council.
- The Weather Analysis and Forecasting Committee's Chair, Clark Evans, provided the committee with regular updates from the quarterly STAC Boards and Committees Chairs meetings.