

All TABs are bookmarks in the PDF to aid in navigation

COUNCIL MEETING
29 and 30 September 2021
Boston, MA

**The AMS is a global community committed to advancing
weather, water, and climate science and service.**

All times are in Eastern. Items are noted as informational, discussion, or decisional.

29 September

9:00 Welcome, Roll Call, and Agenda Review (Tab 0.0)

9:10 Council Retreat (Tab 1.0)

12:00-1:00 Lunch

12:10 Meeting Minutes and Mail Ballots (Tab 2.0)

- 2.1 Executive Committee Minutes (Info)
- 2.2 Executive Committee Mail Ballots (Info)
- 2.3 Council Minutes (Info)
- 2.4 Council Mail Ballots (Info)
- 2.5 Consent Items on Council Mail Ballots (Dec)

12:20 Budget (Tab 3.0)

- 3.1 Status of 2021 Budget (Dis)
- 3.2 Concerns on Having the Annual Meeting in Texas (Dis)
- 3.3 Finance Committee Report (Info)
- 3.4 2022 Proposed Budget (Dec)
- 3.5 AMS Net Assets History (Info)
- 3.6 Audited Financial Statements (Info)

2:30-2:45 Break

2:45 CIC and Commission Business (Tab 4.0)

- 4.1 Culture and Inclusion Cabinet (Info)
- 4.2 Next Future Commissioner of Professional Affairs (Dec)
- 4.3 Publications (Dec)
 - 4.3.1 Publications Commissioner Appointment (Dec)
 - 4.3.2 Guidance for Full Waiver Committee (Dis)
- 4.4 Weather, Water, and Climate Enterprise Commission (Dis/Dec)
 - 4.4.1 Next Future WWCE Commissioner (Dis/Dec)
- 4.5 Planning Commission (Dec)
 - 4.5.1 Next Future Planning Commissioner (Dec)

4:30 Selection of Fifth Councilor (Tab 5.0) (Dec)

- 5:00 Committees and Task Forces of the Council (Tab 6.0)
 - 6.1 International Affairs Committee (Info/Dec)
 - 6.2 Task Force on Governance (Dis)
 - 6.2.1 Student Representation on Council (Dec)

5:30 End for the day

30 September

- 8:00 Statements (Tab 7.0)
 - 7.1 Status of Statements in Process (Info)
 - 7.2 Proposal to Revise AMS Statement on Water Resources in the 21st Century (Dec)
 - 7.3 Best Practices for the Severe Weather Safety for Pre-K through Grade 12 Children at School (Dec)
 - 7.4 Statement on Weather and Forecasting (Dec)
 - 7.5 Statements requiring Action (Dec)
- 8:30 Awards and Award Committees (Tab 8.0)
 - 8.1 ARA, ORA, HRA, Suomi, Washington and Manabe Committees for 2021 (Info)
 - 8.2 Awards Oversight Committee Report (Dec)
 - 8.2.1 Proposal for Earth System Predictability Prize (Dec)
 - 8.2.2 Report of the Ad Hoc Committee on Cleveland Abbe (Dec)
 - 8.2.3 Possible Change for AOC and Fellows Committee Chair Terms (Dec)
 - 8.3 Fellows and Awards Nominations Committees for 2022 (Dec)
- 9:45 Selection of Councilor to Serve on the Executive Committee (Tab 9.0) (Dis)
- 10:00-10:15 Break
- 10:15 Concerns about Corporate Sponsorship (Tab 10.0) (Dis/Dec)
- 10:45 Code of Conduct Issue (Tab 11.0) (Dis/Dec)
- 11:00 Meetings (Tab 12.0) (Info/Dis)
 - 12.2 2021 Specialty Meetings
 - 12.3 2022 Annual Meeting
 - 12.4 2022 Specialty Meetings
 - 12.5 2023 Annual Meeting
 - 12.6 2024 and Beyond Annual Meetings
- 11:45 Committees of the Executive Committee (Tab 13.0) (Info)
 - 13.1 Annual Meeting Oversight Committee
 - 13.2 Investments Committee
 - 13.3 Finance Committee
 - 13.4 Nominating Committee
- 12:00 Status Reports (Tab 14.0) (Info)
 - 14.1 Departmental and Staff Structure
 - 14.2 Career Development

- 14.3 Education Program
- 14.4 Policy Program
- 14.5 Publications
- 14.6 Weather Band
- 14.7 Community Engagement
- 14.8 Membership
- 14.9 Science, Service, and Society

AMS Affiliation with Other Organizations (Tab 15.0) (Info)

12:15 Executive Director Search (Tab 16.0) (Dis)

1:00 Adjourn

TAB 0.0
Agenda

We have quite a lot of important business to work through in the two days of this Council meeting. I hope you all will read through the material in this file before the meeting so that you are all ready to discuss it and reach consensus on the issues. If you have any questions on any aspect of it, please do not hesitate to reach out to Mike or me.

Please note that while we do our best to make sure this agenda includes all the issues that should be put before the Council, if any of you have topics that the Council should discuss, I hope you will let Mike or I know so that we can make sure that happens.

We are look forward to seeing you all at the meeting.

TAB 1.0
Council Retreat

We have set aside the morning of the first day of the Council meeting for strategic discussion that we refer to as a “Council retreat.” When the Council discussed possible discussion topics for this retreat at the July meeting, the consensus was that it should focus on member and community engagement.

The staff at the director level had a retreat on 5 August that was focused on engagement. Attachment A is a short summary of some of the discussion from this directors’ retreat, and I provide it in the hope that it might spark some ideas for the discussion in the Council.

TAB 1.0 Attachment A

Summary report on the discussion from the 5 August directors' retreat

Community engagement

When we look at our core mission as an organization, and the overarching aspects of our strategic goals, we can frame all of that as being that AMS *enables* those in the weather, water, and climate community to advance the atmospheric and related sciences, technologies, applications, and services for the benefit of society. As an organization, we should consciously focus on the enabling aspect as we think about what we do and how we do it.

This represents a shift in mindset from providing services to community members (that is, they take things from us that we offer) to having structures in place that allow community members to help themselves be more successful in their careers and their service to society (that is, they come to us with things they want to do and we make those things possible). To some extent, our historical successes all fall within that way of thinking. Here are few examples:

- Nearly every journal (and definitely the most successful of our journals) resulted from the community coming to AMS with a proposal for the journal.
- Historically, the conferences have been created in response to those in the community proposing them, and even in recent years, success stories (R20, Python, etc.) have been strongly community driven.
- Most committees and boards were formed in response to community request.

By contrast, we often think of member services in terms of products, discounts, etc., that are available to members. There is nothing wrong with that thinking or approach, and we need to continue to offer high quality and robust services to AMS members and the broader community. Those services, however, do not replace (or even overlap with) efforts to enable members of the community to better serve society.

Our most successful engagement with members of the community — those activities that make them feel of AMS as their “family” or “home” — is usually the result of individuals doing volunteer service. It is often the individual giving of themselves that makes the connection rather than what they get from AMS. So, if we think of community engagement in terms of offering ways for individuals to serve the rest of the community, we will be fostering the type of engagement that tends to bond individuals with AMS.

We should therefore focus available resources toward building the framework for members of the broad community to engage in activities that advance the science and services of the community and/or that directly serve society. We should promote that we can connect volunteers with meaningful activities on several fronts that will allow them to contribute to the good of society. We should provide enough of a personal touch in interactions that every volunteer knows they are appreciated for what they do and that their support of the community is not going unnoticed.

Many of the avenues for volunteers to contribute are already in place and available for individuals to begin providing their service. The additional infrastructure that is needed within AMS would be to make it for those seeking service opportunities to know how to do so. The new volunteer module being rolled out provides much of the platform requirements, but this is not a case of “build it and they will come.” Rather, this is a case of needing to build it and then also build awareness of it within the community and ensuring rapid success by those who connect through it. If those seeking to find avenues to contribute find a welcoming and supportive environment that provides what they are looking for, news will spread rapidly.

None of this is directly targeted at getting more AMS members, and it needs to be clear to everyone involved here that nothing about achieving the AMS mission requires increasing the number of AMS members. There is an expectation, however, that as members of the community find greater professional success and personal fulfillment as a result of engaging with the Society, some of them will see membership as a natural component of that engagement, and those who do will see the benefit of additional services provided to members. Further, those who connect meaningfully with AMS in one way will tend to engage in AMS activities in others ways that benefit AMS programs more broadly.

Here is a sampling of activities that individuals can be guided toward:

- Service on the technical boards and committees that work on conferences, statements, short courses, etc.
 - No one with the required qualifications seeking this level of service should be in a position of volunteering and not being placed on *some* committee or board. This needs to be a commitment of the commissioners that is propagated to committee and board chairs.
 - For those who should not be placed, either because they do not have the background or because they are still too junior for this to be a positive experience, should be guided toward other activities.
- The recently formed (as a Centennial initiative) Board on Community Service has several areas of service being spun up.
 - A committee on international volunteer effort
 - Support for the Thriving Earth Exchange (TEX)
- The recently formed (as a Centennial initiative) Committee on Local Networks should offer opportunities for service in local communities, but it is just getting started.
- Support for local chapters is an area that could be built up (maybe through the Local Networks Committee, but this is still a little unclear), even though the local chapters are autonomous entities.
- Mentoring 365 offers an expanding opportunity for service.
- Sharing expertise and experience in podcasts, webinars, etc., in support of professional development
- Expanded outreach to precollege students
 - Volunteers (especially those already part of regular or student local chapters) can help build some specific resources for precollege chapters, such as rubrics for community projects.
 - Create a speaker-bureau database (assuming Zoom presentations). Use volunteer module to solicit speakers and others who want to work with precollege students.

- Once resources are in place, push establishment of precollege chapters to the AMS teacher network (and probably also to regular and student chapters who may want to take a precollege chapter or two “under their wing.”).
- The AMS Education Program seeks volunteer mentors for ongoing weather, ocean, and climate teacher professional development programs and also has opportunities to engage with content creation and review.
- Support for the Weather Band
 - Community champions can bring their scientific expertise to the Weather Band Community to guide discussion.
 - Those with specific types of expertise can create content as webinars or written pieces as “one off” contributions (though hopefully with continued engagement in WB after that).
 - Create a “board of editors” as a volunteer group that can help create, solicit, edit, and curate content for WB.
- The AMS Beacon program should be reconstituted and shifted from a meeting-centric program to one that provides year-round support for creating a welcoming and inclusive environment.

Additional opportunities can be developed through strategic partnerships with other organizations (Mentoring 365 and TEX are examples of that).

A major marketing push needs to be developed that promotes AMS as the organization that is focused on the individual success of members of the weather, water, and climate community (very broadly defined). We can work with our marketing consultant (Michelle Levy) in developing the language for the messages that we push out and there needs to be a plan for dissemination beyond our usual channels. Enlisting the help of influencers within the AMS community will be a key component of the strategy (with early career members who are already strongly engaged being critically important).

A key component of this entire strategy is that all programs and initiatives should scale through increased volunteer activity and not increased pushing by staff. We should not find ourselves increasing staff effort to try to “sell” an idea that is not getting picked up by the community. Instead, staff resources should naturally flow toward areas where the volunteer activities are growing organically. In other words, we should be strained trying to keep up with the work the volunteers are trying to do rather than finding ourselves trying to push volunteers in a particular direction that we think is important.

There should be some level of training for all staff to have them recognize that they are all part of our engagement and activities through their work. Every staff interaction is an opportunity for someone in our community to view AMS as an organization that cares about their personal success as a professional. And every interaction offers a chance for us to show an individual that AMS is looking to them for leadership they might bring to service to our broad community and the greater society. (Michele Levy can probably help with that staff thought process, as well.)

Implicit in all of this is that if we pursue tirelessly the notion that AMS is here to *enable* those in the weather, water, and climate community to advance the atmospheric and related sciences, technologies, applications, and services for the benefit of society, good things will happen and those programs that generate the resources for our activities will prosper. That is not guaranteed,

and we need to always be looking for ways to secure resources in support of the good work we are doing, through donations, sponsorships, grants, etc., in addition to making sure we adequately charge for services that we provide.

TAB 2.1
Executive Committee Minutes

Attachment A provides the minutes from the 9 July Executive Committee virtual meetings. The Executive Committee will be meeting 28 September, as well, to prepare for this Council meeting.

TAB 2.1
Attachment A

AMERICAN METEOROLOGICAL SOCIETY
Minutes of the 9 July 2021
Videoconference Meeting of the Executive Committee

Participants--- President Mike Farrar, President-Elect Rich Clark, Past-Presidents Mary Glackin and Jenni Evans, Councilors Erica Grow and Julie Pullen, Secretary-Treasurer Bruce Telfeyan, and Executive Director Keith Seitter. *AMS Staff:* W. Abshire, S. Armstrong, J. Boyd, C. Gorski, P. Higgins, W. Hooke, B. Mardirosian, B. Papa, K. Savoie, and G. Whittaker.

[The numbering of the following sections follows that in the agenda, but the sections are listed in the order they were addressed at the meeting.]

President Farrar called the meeting to order at 11:02 a.m. EDT on 9 July 2021, with a quorum of the Executive Committee (EC) on the call. Past-President Glackin joined a few minutes later.

0.0E Welcome, Roll Call, and Agenda Review

President Farrar welcomed everyone and noted that the agenda was mostly concentrated on preparing for the upcoming Council meeting.

1.0E Review Meeting Minutes and Mail Ballots

The EC had no changes for the minutes of the March meeting, which had been approved by unanimous e-mail ballot. The EC voted to reaffirm all non-unanimous decisions made by e-mail ballot.

2.1E Next Publications Commissioner

The EC voted to recommend to Council that Tony Broccoli be reappointed for a second term as Publications Commissioner.

2.2E Next Future Commissioner for Professional Affairs

After discussion of a number of potential candidates, the EC agreed on five potential candidates for the next Future Commissioner of Professional Affairs. Executive Director Seitter will contact each to see if they would be willing to serve if appointed by the Council.

2.3E Next Future Commissioner for Planning Commission

After discussion of potential candidates, the EC agreed on three potential candidates for the next Future Commissioner of the Planning Commission. Executive Director Seitter will contact each to see if they would be willing to serve if appointed by the Council.

2.0E Discussion of Council Agenda Items

The EC reviewed key items from the agenda packet for the upcoming 13 and 16 July Council meeting.

The following items refer to agenda items in that document.

2.1 AOC Report

Past-President Glackin led a lengthy discussion of the AOC report, focusing mostly on

possible EC guidance for the Council with respect to the recipient of the Spengler Award, reviewing possible concerns and options. She also noted that the slate of recommended awardees this year was diverse but full diversity analysis wasn't possible without more information than we currently collect.

2.3 Possible Change for AOC and Fellows Committee Chair Terms

In discussing whether the current practice of having each past-president chair the AOC and Fellows Committee for one year each was optimal, it was agreed that the EC would recommend to Council that this item be deferred to the fall meeting to allow past-presidents to be consulted.

4.0 Honorary Members

The EC agreed that no additional discussion was needed on this agenda item, but noted that with no international candidates for Honorary Member this year, this should be considered for next year.

5.0 Awards and Honors Policy in Code of Conduct

The EC recommended approval of the proposed policies, and suggested that this agenda item be addressed by the Council before approval of new award recipients, Fellows, and Honorary Members.

6.0 Provide Strategic Guidance for 2022 Budget

There was some discussion on reconciling the budget presentation with the Financial Statements, and ways to have the budget be easier for Council members to understand. The EC expressed some concerns that given the expenses associated with member services and the higher costs of hybrid meetings, it will be difficult to achieve a positive budget for the 2022 budget year since it will not have the benefit of the PPP funding that is helping in 2021. There was the suggestion that discussion of these budgetary issues might be good for the Council "retreat" day this fall.

8.1 Publications

The EC discussed and was generally supportive of the proposal for a new journal that is part of the Publications Commission report.

10.1 Software Preservation Best Practice Statement

President-Elect Clark briefed the EC on his work leading an ad hoc committee that followed Council guidance to work with the statement drafting committee to create a new draft statement on software preservation guidelines that was less prescriptive. The EC agreed the new draft was ready for Council approval but suggested that it not be labeled a best practice statement.

10.2 Changing Length of Member Comment Period

After discussion, the EC was not supportive of increasing the statement member comment period beyond its current 30 days.

11.0 Governance and Changes to the Constitution and Bylaws

It was agreed that more work is needed on this issue, and there was a suggestion that some proposed text be prepared for Council review at the fall meeting if that was possible.

12.0 Possible “Council Retreat” at Fall Council Meeting

There was some discussion on possible topics, with some consensus that those raised under agenda item 6.0 may be most useful.

The EC returned to the EC agenda. Past-President Evans and Councilor Pullen needed to drop off the call at 1:00 due to other commitments.

4.0E Acknowledging Native Lands as Part of the Council Meeting

Past-President Glackin led a discussion on the possibility of having Council members acknowledge the native lands they occupy in the chat function at the start of the Council meeting. She also suggested that the CIC be asked to consider recommendations for expanding on that effort.

The EC adjourned at 1:10 p.m.

TAB 2.2
REPORT ON EXECUTIVE COMMITTEE MAIL BALLOTS
AMERICAN METEOROLOGICAL SOCIETY
REPORT ON E-MAIL BALLOTS

29 June 2021

Executive Committee approval of the Aviation, Range, and Aerospace Meteorology named session submission

6 Yes; 0 No Response

22 July 2021

Executive Committee approval of the Minutes from the 9 July Executive Committee Meeting

6 Yes; 0 No Response

23 August 2021

Executive Committee approval of Tomorrow.io as a Regular Corporation and Institutional Member of the AMS

5 Yes; 1 No Response

TAB 2.3
Council Minutes

Attachment A provides the minutes from the virtual Council meeting on 13 and 16 July, while Attachment B provides the minutes for the virtual Council meeting on 2 August. These minutes have been approved by e-mail ballot and that approval will be reaffirmed the approval of e-mail ballots under TAB 1.4.

TAB 2.3
Attachment A

AMERICAN METEOROLOGICAL SOCIETY
Minutes of the 13 and 16 July 2021
Videoconference Meeting of the Council

Participants--- President Mike Farrar, President-Elect Rich Clark, Past-Presidents Mary Glackin and Jenni Evans, Secretary-Treasurer Bruce Telfeyan, and Executive Director Keith Seitter. **Councilors:** Derek Arndt, Shuyi Chen, Mark DeMaria, Kristie Ebi, Efi Foufoula-Georgiou, Erica Grow, Mike Henry, Wayne Higgins, Kim Klockow-McClain, Andrea Lang, Ruby Leung, Julie Pullen, and Jim Steenburgh. [Councilors Alexander, Higgins, and Morris were absent.] **Commissioners:** Tony Broccoli (Publications), Ankur Desai (STAC), Kevin Goebbert (EHR), Doug Hilderbrand (Enterprise), Maureen McCann (Professional Affairs), and Yvette Richardson (Planning). **Future and Past Commissioners:** Mike Augustyniak and Genene Fisher. **CIC Chair:** Melissa Burt. **Staff:** Wendy Abshire, Stephanie Armstrong, Joe Boyd, Erica Callahan, Beth Farley, Claudia Gorski, Bill Hooke, Brian Mardirosian, Brian Papa, Kelly Savoie, and Gwendolyn Whittaker. (Not all participants attended the entire meeting.)

A quorum of voting members being present, President Farrar called the meeting to order at 2:02 p.m. EDT on 13 July 2021.

[The numbering of the following sections corresponds to the Council agenda. The sections are listed in the order they were addressed at the meeting.]

0.0 Welcome, Roll Call, and Agenda Review

President Farrar welcomed everyone and noted that there was a full agenda for the meeting but every effort would be made to allow full discussion on each item.

1.0 Meeting Minutes and Mail Ballots

Council voted to reaffirm the e-mail ballot approvals that had occurred since the last meeting. Council also voted to approve establishment of the Farthest North AMS Chapter in Fairbanks, AK, and the Ohio State University Student Chapter of the AMS that were provisionally approved by e-mail ballot.

5.0 Awards and Honors Policy in Code of Conduct

After a robust discussion, Council voted to approve the proposed Awards and Honors Policy as an additional component of the Society's policies governing professional conduct with an additional clause added to one section of the text. With these new policies approved, all potential new award and honor recipients will be required to self-disclose any conduct findings prior to being able to accept an award. It was noted that the policy should apply to named sessions and named symposiums since they represent an honor.

2.1 Awards Oversight Committee Report

Past-President Glackin reviewed the report of the AOC and Council voted to approve all awards and citations as presented with the exception of one. Council had a lengthy discussion on the remaining award nomination and asked that staff provide a report back to the Council as soon

as possible with more information to allow a final decision on that award.

2.3 Possible Change for AOC and Fellows Committee Chair Terms

Past-President Glackin asked that this agenda item be deferred to the fall Council meeting to allow time for more input from past presidents.

3.0 Proposed AMS Fellows

Past-President Evans briefed Council on the process resulting in the list of proposed new AMS Fellows. Council voted to approve the list of 22 new Fellows.

4.0 Honorary Members

President Farrar led the discussion of possible new Honorary Members and Council voted to approve three individuals for this honor.

[Council recessed briefly from 3:42 to 3:50. CIC Chair Melissa Burt joined the meeting following the break.]

7.0 Advisory Group for Scientific Integrity

Council discussed a request that the Society be part of an advisory group for a project in scientific integrity in government. Council decided not to formally participate at this time, but asked that Executive Director Seitter continue discussions with the group with the notion that AMS might participate in some way in the future.

6.1 Review of 2021 Revised Budget and Mid-Year Status

Executive Director Seitter provided a very brief review of how AMS completed the 2020 budget year and year-to-date performance.

6.2 Meetings for 2021 and 2022

Executive Director Seitter asked Council for guidance and direction on implementing new approaches to meetings and how those might impact preparation of a proposed 2022 budget. There was extended discussion on ways to have meetings best serve the community. Council recognized and appreciated the budgetary pressures presented by the spectrum of options for hybrid meetings going forward.

[Council recessed for the day at 5:03 p.m. and reconvened on 13 July 2021 at 11:04 a.m. EDT by videoconference with the same Council members present as 13 July with the exception of Past-President Evans and Councilors Arndt and Steenburgh. Dr. Amy McGovern joined the meeting as a guest for the first agenda item.]

8.1 Publications Commission

Commissioner Broccoli reported on the status of the journals. He presented the recommendation of the Commission that an additional Editor's Award be created to recognize reviewers who contribute to multiple journals. After discussion, Council suggested that the proposal go to the AOC for recommendation to the Council in September.

Dr. McGovern presented a proposal, endorsed by the Commission, to create a new journal covering artificial intelligence and machine learning. Council enthusiastically approved this proposal and the recommendation of Commissioner Broccoli that McGovern be the initial chief editor for the new journal. It was recommended that the journal be marketed heavily and made operational as quickly as practical.

8.2 STAC Commission

Commissioner Desai provided a report on STAC Commission activities for the first half of the year.

8.2.1 Named Symposiums

After discussion, Council approved named symposiums in honor of William Hooke and Roger Pielke Sr. for the 2023 Annual Meeting. Two additional proposals were deferred for consideration for future annual meetings.

8.3 Professional Affairs Commission

Commissioner McCann presented a report on Commission activities. Council voted to approve a revised Terms of Reference for the Board on Operational Government Meteorologists. Council was also supportive of a suggestion by Secretary-Treasurer Telfeyan that terms of reference be revised across the commissions to specify a minimum number of members rather than a maximum to provide flexibility in appointments.

8.3.1 Joint Professional Affairs and EE Commission report on ECLA

Commissioner McCann encouraged Council members to review the reports on the Early Career Leadership Academy that were provided as a joint commission report.

8.4 Education and Engagement Commission

Commissioner Goebbert provided a report on Commission activities and led the Council in discussion on several action items. Council voted to approve new text to clarify eligibility requirements for the Certified AMS Teacher certification, and also approved efforts in the Commission to begin work on a revised bachelor's degree statement and a related best practice statement providing guidance for students preparing for employment in the private sector.

8.6 Weather, Water, & Climate Enterprise Commission

Commissioner Hildebrand gave a report on Commission activities, including the successful transition to virtual meetings for the BEC and BEED.

8.4.1 Future Commissioner for Education and Engagement

After discussion of the short list of candidates provided by the Executive Committee, Council voted to appoint Elisabeth Cohen as Future Commissioner of the EE Commission for a term beginning in January 2022.

8.4.2 Summary of AMS Member Survey Results

Commissioner Goebbert encouraged Council members to review the preliminary results of the most recent member survey that had been provided as an informational item in the agenda packet.

8.5 Planning Commission

Commissioner Richardson provided a status report on the various task forces under the commission. Council voted to approve a new member, with alternate if needed, to fill the vacancy left when Susan Jasko became Future Commissioner. The new member will have a term starting immediately and ended in January 2024. Council charged the Commission to do a study on the future of Society meetings.

9.0 Culture and Inclusion Cabinet

CIC Chair Burt presented a brief report on CIC activities. After discussion, it was agreed that having a member of the Executive Committee on the CIC was beneficial and there will be further discussion on whether that might normally be the President-Elect or one of the Past-Presidents.

[Council recessed briefly from 1:20 to 1:50 p.m.]

10.1 Software Preservation Best Practice Statement

After discussion, Council approved the statement as presented but with “best practice” removed from the proposed title.

10.2 Changing Length of Member Comment Period

Council did not support a recommendation that the member comment period for statements be expanded beyond the current 30 days, so no change in the procedures will be made.

13.1 AMS/Sigma Xi Distinguished Lecturer

Executive Director Seitter reminded the Council that AMS supports a distinguished lecturer for Sigma Xi and noted that the current AMS lecturer is Julie Demuth and the lecturer chosen for next year is Richard Alley.

13.2 Status of Lawsuit About the Alley Behind the Carriage House

Executive Director Seitter reported that the lawsuit related to damage to the Carriage House has finally been settled and that repairs are underway.

14.0 Status of Executive Director Search

The Council was informed that the search for the next executive director was proceeding on schedule with the expectation of providing a candidate for Council approval in September.

11.0 Governance and Changes to Constitution and Bylaws

It was agreed that efforts should be made to have all proposed changes to the AMS Constitution ready by January 2022 to allow the process to lead to a member vote in fall of 2022. More will be discussion on this at the fall Council meeting.

11.1 Student Representation on the Council

There was an extended discussion on options for getting student representation on the Council, and also on ensuring there were early career Council members. Council asked that staff use the ideas generated in the discussion to prepared a set of proposals for consideration by the Council in September.

6.3 Membership and Member Engagement

In a continuation of discussion on budget issues, Executive Director Seitter outlined the financial implications seen with continued expansion of member services, and noted that resolving issues of member services and community engagement were critically important for the future of the Society.

12.0 Possible “Council Retreat” at Fall Council Meeting

Council was in agreement that there should be a half-day “retreat” at the fall Council meeting that provided an opportunity for extended discussion on the budgetary issues associated

with member engagement and the strategic issues that represented for the future of the Society. President Farrar suggested that he would work with the Executive Committee and a few additional Councilors to create a framework for that discussion.

Council adjourned at 2:16 p.m. EDT.

TAB 2.3
Attachment B

AMERICAN METEOROLOGICAL SOCIETY
Minutes of the 2 August 2021
Videoconference Meeting of the Council

Participants--- President Mike Farrar, President-Elect Rich Clark, Past-President Mary Glackin, Secretary-Treasurer Bruce Telfeyan, and Executive Director Keith Seitter. ***Councilors:*** Joan Alexander, Shuyi Chen, Mark DeMaria, Kristie Ebi, Erica Grow, Mike Henry, Wayne Higgins, Andrea Lang, Ruby Leung, Julie Pullen, and Jim Steenburgh. [Councilors Arndt, Foufoula-Georgiou, Klockow-McClain, and Morris were absent.] ***Commissioners:*** Tony Broccoli (Publications) and Doug Hilderbrand (Enterprise). ***Future and Past Commissioners:*** Mike Augustyniak. ***Staff:*** Stephanie Armstrong and Brian Papa.

A quorum of voting members being present, President Farrar called the meeting to order at 4:04 p.m. EDT.

1.0 Battan Awards

Council voted to approve the recipients of the Battan Book Award for both the K–12 and adult categories.

2.0 Spengler Award

After a lengthy discussion, Council selected the individual to receive the Spengler Award.

Council adjourned at 5:19 p.m. EDT.

TAB 2.4
REPORT ON COUNCIL MAIL BALLOTS
AMERICAN METEOROLOGICAL SOCIETY
REPORT ON E-MAIL BALLOTS

2 July 2021

Council approval of the updated AMS Water Resources Committee Terms of Reference
11 Yes; 0 Abstain; 8 No Response

22 July 2021

Council approval of Minutes of the 13 and 16 July 2021 Council Meeting
11 Yes; 0 Abstain; 8 No Response

10 August 2021

Council approval of Minutes from the 2 August 2021 Videoconference Meeting of the Council
13 Yes; 1 Abstain; 5 No Response

16 August 2021

Council approval of Mark Zelinski for the Henry G. Houghton Award
14 Yes; 1 Abstain; 4 No Response

Council approval of Andrew Stewart for the Nicholas P. Fofonoff Award
14 Yes; 1 Abstain; 4 No Response

Council approval of Charles Sampson and Kate Musgrave for the Banner Miller Award
14 Yes; 1 Abstain; 4 No Response

7 September 2021

Council approval of the drafting committee to revise the current Statement on Geoengineering
In progress

TAB 2.5
Consent Items on Council Mail Ballots

Per Massachusetts law governing nonprofit organizations, any e-mail ballot for which there was not unanimous “yes” votes must be reaffirmed at the meeting.

Action: Reaffirm all non-unanimous decisions made by e-mail ballot.

TAB 3.1

Status of 2021 Budget

In January of this year, the Council approved a revised budget for 2021, and as we discussed in July, that is the budget we have been operating under (that is, the Executive Committee did not make any revisions when they met in April). You can see that budget, along with the actual performance through the end of July, in the spreadsheets in Attachment A of TAB 3.4. (This package needed to go out before we had the actuals through the end of August, but those will be posted on the Council Community before the meeting.)

Given the continuing significant impacts from covid, especially in our meetings operations, the Council approved deficit budget that projected we would end the year with an operating loss of a little over \$600K. This deficit was offset by the fact that we are accounting for the \$1.4 million PPP loan (which was fully forgiven and is therefore more of a grant), in 2021. I am happy to report that a combination of having the budget approved in January be somewhat on the conservative side and very careful management of programs across the board by the AMS staff has put us in a position of performing better than budget through the end of July. The portion of the budget we consider the operating budget (line 35 of the spreadsheets) is showing us about \$400K better than budget. The excellent returns we have been seeing on our investments currently have us well above a million dollars better than budget for the overall bottom line.

This is all very good news. You will recall that the Council accepted the notion that we could *philosophically* treat the PPP funding as covering the deficit we projected for 2021. (This is a philosophical notion because technically, the PPP funding was expended in 2020, but since we ended 2020 with a solid positive bottom line not counting the PPP funding, and because that revenue will be recognized in 2021, it was as though we carried it forward.). With our doing better than projected this year, much more of the PPP funding will go into our unrestricted net assets than we had expected this year. As you will see in TAB 3.4, we will be asking the Council to keep this in mind as we discuss the continued impacts of covid extending into next year and the difficulty we are seeing in preparing a balanced budget for 2022.

TAB 3.2

Concerns on Having the Annual Meeting in Texas

As you all know, shortly after Texas passed its new abortion law, we started receiving comments from members who felt that we should pull the Annual Meeting out of Houston. (I will note that we had received a few earlier e-mails expressing concerns given the Texas policies on mask mandates and its open carry gun laws, as well.) We issued a statement on our intention to continue forward with the meeting pretty quickly after this all came up, and that statement received some positive feedback, but we also know that some did not consider this as going far enough.

It is not uncommon for members to call for AMS to change meeting venues based on the political actions of a particular state. Our response in essentially every case has been to continue forward with the meeting, but wherever possible, we have tried to use the opportunity to work with local officials or build into the meeting some additional components that address the issue at hand. I think this has been, and continues to be, the right path.

I will add that Mike met with the mayor of Houston on 7 September and discussed various aspects of all of this. I'm sure there will be online discussion on these issues before we get to the meeting, but this agenda item is a placeholder to allow for more discussion on this if it is warranted.

Just before this package went out, we received a letter from the mayor of Houston that in provided as Attachment A.

I have included this under the TAB on budget since any notion of pulling the meeting out of Houston has major budgetary implications.



CITY OF HOUSTON

Sylvester Turner

Mayor

P.O. Box 1562
Houston, Texas 77251-1562

Telephone – Dial 311
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September 13, 2021

American Meteorological Society
45 Beacon Street
Boston, MA 02108-3693

Dear American Meteorological Society (AMS),

As Mayor of Houston, I want to thank you for selecting our City for your 102nd Annual Meeting in January 2022. I have full confidence you will find Houston to be a welcoming, diverse, and excellent host city to your members and guests.

I would like to acknowledge a concern that is being expressed by many across the nation about the actions taken by the Republican leadership in the Texas State Legislature. I share these concerns and have been vocal about it. The shameful policies passed during this year's legislative session are not reflective of Houston or, for that matter, a majority of Texans. In the wake of these new laws on guns, abortion, and voting rights, polling shows that Governor Abbott's approval rating is negative, and a majority of Texans believe the state is headed in the wrong direction. I encourage your members to speak their hearts and minds on these subjects.

Houston stands apart from these policies and your presence here can send a strong message about the policies and issues we all care about. Houston has faced seven federally declared disasters in the past six years, which has led me to pursue and be appointed as the Chair of US Climate Mayors, the Resilient Cities Network, and the African American Mayors Association. The science behind meteorology and climate change helps shape our policies around resilience in the long run and helps protect lives in the moments of major weather events. Given the impact of weather and climate extremes on the people of Houston and the alignment of my climate and environmental policies with your mission, I can't think of a more ideal city for the AMS to engage with than Houston.

Your invitation to speak at the AMS Annual Meeting is appreciated. I look forward to your visit in January 2022 and working with you to participate and discuss our shared challenges.

Sincerely,

A handwritten signature in black ink, appearing to read "Sylvester Turner".

Sylvester Turner
Mayor

TAB 3.3 Finance Committee Report

Here is the report from the Rich Spaulding, chair of the Finance Committee.

Meetings of the finance committee occurred on August 4th 2021 and August 30th with the express purposes of reviewing midyear financials and the 2022 preliminary budget estimates. No items of concern were noted on the 2021 financials as actuals are materially tracking 2021 operating budget. The primary discussions centered around the 2022 budget and concerns over Meetings projections, particularly given the hybrid format and lack of historical experience with these formats, related attendance type and revenues. Keith and the staff have taken a pragmatic approach to the 2022 budget leaving most programs intact with relatively conservative revenue estimates. The rationale being that the new executive director will have a “clean slate” to make changes should they be necessary. The greatest concern with the current 2022 budget is that the Society will be in a very tough cash flow position, and will almost certainly need to draw from unrestricted investment funds to make up the budget shortfall as well as potentially draw even more late in the year to meet cash flow demands. This may be considered an investment into the future of the AMS but that should be clearly identified as a basis for this level of investment. Below are specific areas of discussion and responses from the staff as a preface to the EC and Counsel’s discussions regarding the 2022 budget:

1. Meetings: Fixed versus variable expenses. Considerations for cost savings or additional revenue:

We now have revised numbers from the Meetings team. We will be going with a fully hybrid model for the meeting with the same reg fee for in-person and virtual. That greatly reduces the financial risk and has the virtual folks cover the additional costs associated with streaming 22 concurrent sessions. We think we can do this with the income/expense net being nearly identical to the original plan (despite the details making up income and expense being quite different). The fixed versus variable part ends up being pretty complicated, because what our team did to make this work was get the hotels and convention center to shift the contractual obligations from one category to another (such as reducing our food obligations but increasing what we are paying them for internet connectivity) so that what would have been higher costs ended up being a shift in what the money was used for.

2. Exhibitors Income: Profitable, yes, opportunity to expand activity by focusing marketing on new innovation/technology within the industry:

We agree there are possibilities to expand this with some targeted marketing over time, but perhaps more important for the 2022 budget is that with our going to full streaming we have more opportunities for corporate sponsorship of the livestream. We found the companies really liked having their logo at the bottom of the screen for entire sessions (which gets to a point in the next bullet).

3. Other Revenue Opportunities: Short courses/Paid professional development, Grant funding, Session sponsorships at the Annual or other meetings:

Yes, we think there is potential to increase the offerings short courses and virtual workshops that people will pay to attend (and with a discount to members this because additional incentive for membership). We have several short courses happening at the annual meeting that I think would be successful if offered virtually later in the year (even this year we had virtual courses that we so popular that we can offer them more than once and fill up each time). We have seen success in getting federal agency grants to contribute to a lot of our programming over the years, but we are actively looking at other grant opportunities. It is important to note that this is not easy to do and we have invested a lot of time on foundations over recent years with very marginal success rates. There is, however, still a lot of potential.

4. Other Expense Saving Opportunities: DC Lease, Streaming services/Virtual meeting strategies

We are actively negotiating on the DC lease and it looks like we are going to reach a deal that is what we were hoping to achieve within the next week or so. If so, I will sign that. As noted above, we are getting more creative in working out how to approach virtual and hybrid meetings as those technologies for conferences mature and we all gain more experience. I am truly stunned at how well our team did in renegotiating contracts for the Houston meeting to allow us to go full hybrid at essentially the same net.

5. Cash Flow: Refine projections to ensure that we can maintain operating cash above \$1M. If unable to, what is the plan to ensure we have adequate operating liquidity.

This is obviously the \$64,000 question. As Joe articulated during the FC meeting we need to develop a plan, and a list of 'levers to pull' for both the short and long-term, while also planning to spend some of our savings to do that along the way. While Joe and I have spent a good amount of time on that plan, we're also cognizant that we are in the midst a change at the Executive Director level, and it will be the new person that guides the executive of the budget next year.

TAB 3.4

2022 Proposed Budget

The AMS budget is complex, with an interconnectivity across program areas that can be daunting. For those of you who may be new to this structure, the background information provided in the next few pages should be helpful. If you invest the time to go through this, I think you will feel it was worth the effort.

Background

Before delving into the budget numbers, it is useful to review the structure of the AMS budget and the Council-established philosophy under which these budgets are prepared.

The operational budget is organized under five major areas, labeled: “Membership, BAMS & Career Development,” “Publications: Journals and Books,” “Meetings/Exhibits,” “Education,” and “Policy Program.” A sixth budget area is Development, which includes the Society’s fundraising activities in the form of member donations and extramural support for student programs. The Development program also contributes to other program areas by soliciting sponsorships and direct corporate support, and some member donations are designated as support for either the Education or Policy programs. In each of these cases (such as Meeting sponsorships or support for Policy or Education efforts), the funds raised by the Development program show up as income lines in those respective program area budgets. Development program staff also provide support for some of the student programs beyond raising funds for them (such as staff management of the student assistant program at annual meetings).

The longstanding budget philosophy has been that the budget area covering member services, including career development and BAMS, is not expected to break even because this budget area includes member service and engagement activities that are more extensive than could be expected to be covered by member dues alone. This is especially true since dues are also expected to cover a major portion of the cost of producing BAMS, the official membership organ, as well as the social media and press relations activities carried out by the BAMS staff. Most of our support for the commissions, as well as the new Centennial initiatives, fall into this budget area as well.

The Publications portion of the budget is expected to generate 12-14% net excess revenue that can be applied toward other program areas, consistent with longstanding practice by scientific societies (and consistent with IRS rules). The Meetings portion of the budget is also expected to generate excess revenue, even in years with fewer meetings (which had traditionally been true for odd-numbered years).

Many years ago, the Council set as policy that the Society would program into its budget a total of \$560K be set aside for \$250K of base funding for the Education Program, \$190K for the Policy Program, and \$120K for Development activities. This base funding has gone under the title of Community Support Programs (CSP) and has been transferred out of the Publications revenue budget to these other budget areas so that it shows up as explicit income lines in those other program area budgets. In the case of Education and Policy, this base funding is intended to provide seed funding for new grant-supported initiatives, to offer some continuity for these soft-money operations, and also to show a commitment to these programs that could be highlighted in

grant proposals as indicating the importance the Society places on these activities. For Development, the base funding is intended to cover salaries of those involved in student programs and fundraising activities so that AMS could maintain its commitment that donated funds designated for a specific program go to that program rather than administrative costs. Including the CSP transfer base funding, the Education and Policy budget areas are intended to at least break even. Last year, the Council amended the longstanding policy of having the CSP funding be set at \$560K and instructed that it be set at an amount no higher than the minimum required to meet program goals. Accordingly, the 2021 CSP transfer out of Publications was set to \$495K. The proposed 2022 CSP amount is budgeted at \$497K.

So, following the Council's budget philosophy, Membership, BAMS & Career Development would show a deficit, with this deficit covered by the excess revenue of the Publications and Meetings portion of the budget (after the CSP transfer). Education and Policy would break even (including the CSP transfers). The Development program would typically bring in more revenue than was expended on programs, though that revenue is typically restricted to specific designated initiatives (such as scholarships) and not treated as available for the operating budget. You can see this philosophy play out as intended (more or less) in the 2019, 2020, and 2021 budgets as illustrated in the spreadsheets in Attachment A.

A few words about overhead expenses

On each budget page, there is a grouping of Indirect Expenses that includes four expense lines making up the overhead expenses carried by each program. The "Indirect Salaries" line includes an allocation of salaries that are not part of the direct expenses of any specific program, but that support all programs. These include salaries associated with administration, finance, IT, communications and marketing, mailroom activities, and office management. The other three overhead expense lines are Equipment/Supplies/Software, Building/Rent/Utilities, and Administrative and General.

All four of the overhead expense lines are allocated to program areas using the same percentages. Those percentages are calculated by an objective algorithm. For each program area, the separate percentages of that program's income, direct expenses, space requirement, and FTE headcount relative to the totals are calculated. Each of these four percentages offers an acceptable basis on which to allocate overhead expenses, and all four give roughly similar allocation splits. To remove any bias one approach may give relative to the others, the four are averaged. And to smooth the variation from year to year, a three-year running average is used to create the final allocation spread. For the 2021 budget, that calculation resulted in approximately 18.2% of the overhead being allocated to Membership, Career Development, and BAMS, 44.6% to Publications, 20.5% to Meetings, 12.0% to Education, and 4.7% to Policy. We use the 2021 allocation percentages for the proposed 2022 budget, but will update them for the 2022 Revised Budget in the spring since we will at that time have final 2021 data to use for the calculation.

Collectively, the overhead expenses run in the range of 25%-30% of the total AMS budget. Analysis is ongoing to find ways to further reduce overhead expenses, which would serve to improve the bottom line of all the program areas.

Budget Presentation

For this presentation, in Attachment A we include columns for the 2019 actuals, the original

2020 budget, the 2020 revised budget, the 2020 Actuals, a group of columns for the 2021 budget (showing budget and year-to-date performance through the end of July), and then, finally, the proposed 2022 budget. (Year-to-date performance through the end of August will be posted to the Council Community before the meeting.)

Overview of 2020 Actuals and the 2021 Budget

We discussed pretty extensively at the July Council meeting the 2020 actuals and many aspects of the year-to-date performance in 2021 (at that time only through the end of May). We will not repeat all that here, but will note that the positive performance in the current year has continued and through the end of July we were running about \$400K better than budget.

Proposed 2022 Budget

The following pages will look at each budget area, reviewing the data from last year and this year as needed to provide some context for the projections for the proposed 2022 budget.

Membership, Career Development, and BAMS

This program area includes all aspects of member services and community engagement, as well as the operation that produces BAMS as the Society's member magazine. Historically, member services and BAMS have been combined in the budget because BAMS is a member service as well as a publication. This budget page also includes the aggregated Career Development activities since that collection of initiatives includes many direct member benefits. The Career Development program includes the certification programs (CBM, CCM, and CAT), as well as other career initiatives such as the terrific series of podcasts, webinars, and virtual short courses. The certification income has been steady for a number of years and covers the costs of the two full-time employees who handle career development activities in this program.

We lowered the projections for dues revenue for next year a bit compared to the 2021 budget based on this year's actuals. Our current year projections for membership in the AMS Weather Band were not met, but membership has been growing at a steady pace. This is a little deceiving in the year-to-date data though because unlike AMS membership, which is calendar-year based, the Weather Band has rolling renewals. So, someone joining late in the year results in only that calendar year pro-rata fraction of income recognized this year, with the balance being recognized next year.

We used 2021 year-to-date data to help guide adjustments in other revenue areas. We continue to get strong submissions for BAMS and have quite a number of papers in the queue for publication, so we are confident the increased author charge revenue shown there is a conservative value. On the expense side, we again used the current year to guide projections for next year. We have been down a production position in BAMS all year and using more contract support for layout, so we adjusted the expenses to reflect that for next year.

The Career Development short course program shows a significant increase in both income and expense given that we expect to have a robust set of in-person short courses with this year's annual meeting.

Publications

This budget area is meant to generate enough excess revenue to cover the deficits in Membership, Career Development, and BAMS, as well as transfer base funding to Education, Policy, and Development.

In 2020, this budget area exceeded expectations, and it is on a path to do so again this year, despite continued pandemic impacts. We have been increasing our subscription pricing a little each year and those pricing increases have nearly offset the revenue lost due to the small drop in subscription numbers we continue see each year, with the net result of subscription revenue being pretty stable year over year. Still, we tried to stay a bit conservative in our projection for 2022. We held the author charge income for 2022 the same as the 2021 projection based on current performance and the KPI indicators.

On the expense side, we set 2022 projections based largely on year-to-date performance this year, with one exception. We set the “Other” category at \$80K for 2022. We plan to contract with some outside consultants to analyze our business model, and provide advice on adjusting to the continued evolution of funding models in journals. While one might suggest we should not take on this expense in a tight budget year, we feel strongly that this effort will reap benefits that will quickly pay for itself, and developments on the near horizon (such as the implementation of PlanS in the EU and UK) argue against deferring this outside analysis.

Meetings

The area of meetings and exhibits continues to be the hardest hit we have to absorb in terms of covid impacts, and it represents quite a large hit. Nearly all the specialty meetings scheduled for 2020 got pushed to later years, as were nearly all for 2021. The result is a super busy schedule for 2022. In the past, a “typical” even-numbered year would lead to a net positive meetings budget of between \$500-800K. A super packed year should do far better than that, but we still have enormous uncertainties on whether those meetings will be in person, how many will attend, etc., and shifting the Houston Annual Meeting to a fully hybrid meeting (with its attendant increase in expenses) really cut into what would normally be a healthy excess revenue margin. So, while we are projecting a net positive for the year (which is terrific), it is far lower than we would have normally expected. We hope we are being overly conservative in all of these projections, but even with that, the uncertainties are large here, so this represents the budget area with the largest downside risks, though, also a good bit of upside potential.

Education

The Education Program also experienced some very significant covid impacts and Wendy and her team have had to be quite nimble in adjusting to evolving realities. Not being able to hold some of the grant-funded in-person teacher training programs has meant that we have not been able to fully realize available grant revenue or earn as much teacher fee income. Even though this was offset by lower expenses, and grant participant support funding was used to support teachers during a very difficult period for educators, this still represented a challenge to meet program income resulting in the elimination of one staff position in 2021. We have adjusted the 2022 income based on our best estimates of what will realistically be possible, with the notion that we should be on the conservative side, while remaining hopeful that we will begin to see a

tapering off of covid impacts.

The requested CSP funding level deserves some discussion. The current grants cover our teacher professional development offerings in weather and ocean science. We do not currently have grant funding that supports the climate science teacher program, but it is arguably the most important program we offer teachers right now, and teacher interest remains high. This course completes the suite of courses that support our faculty arrangements and MOU with Cal U and contributes to teachers earning their Certified AMS Teacher (CAT) recognition. After careful calculation, we have determined that the net cost of offering this course (accounting for income from teacher fees) using the infrastructure in place is \$245K. So, that is the requested CSP funding shown here. We hope the Council will support the offering of this course.

Policy Program

In a broad sense, the Policy Program is doing a little better than budget in every aspect of income and expense this year (the remaining corporate support not evident in the 7/31 year-to-date actuals is confirmed even though not all is in hand). We are looking at next year as being broadly similar to this year in all respects, and we recently picked up an additional corporate sponsor for the program (Maxar), so we are confident that the budgeted \$100K for 2022 corporate support is a good one. For 2022, we have suggested holding the level of CSP funding at the same as we had this year, which is lower than what had traditionally been provided.

Development Program

As noted in the introductory paragraphs, this portion of the AMS budget is considered separately from the five operational budget areas because it largely deals with funding that is either temporarily or permanently restricted through the designations of donors. It does interact with the operating budget, however, in that it receives a CSP transfer intended to support program salaries, and funds designated to support either the Policy or Education programs are transferred to those programs. Other forms of extramural support secured by efforts of development program staff (such as meeting sponsorships) are also shown directly in the income lines of the other program areas.

The development activities have been doing well this considering the ongoing pandemic and people having no shortage of worthy causes to choose from. We have more or less just copied the 2021 budget numbers to 2022 with small adjustments for salaries, etc.

Starting in 2020, we implemented an approach to use a portion of donations to cover some of the program's administrative expenses. You can see the implementation of those management fees in the budget pages starting this year. This approach allowed us to reduce the level of CSP funding required to cover program salaries, reducing the burden on the operating budget.

Allocated overhead expenses

Page 8 of the spreadsheets provides some breakout of the items that make up the various overhead categories, and includes the allocations to each program area that then show up on that budget page. We can usually forecast most of these pretty closely based on prior year values or known planned expenditures.

I will note that we are very close to signing a deal that would sublet space in our DC office and thereby reduce that expense considerably. It looks like we will be able to reduce our cost in 2022 by about \$150K and then reduce the expense by approximately \$200K in each of the next four years then remaining on that lease, for a total savings about \$1 million. We have not included that savings here because we do not yet have a signed deal, but I hope we will by the time of the Council meeting.

One area on this page showing a fairly significant increase from 2021 to 2022 is in indirect salaries. This is partly due to some new positions that have been added (such as the Director of DEI), but also because in 2022 we will have the salary of the new executive director in addition to my (reduced) salary through August of that year. As you think about the outyears beyond 2022, note that there will be some savings compared to what we have here as my salary disappears.

Other Income Section of the Summary Page

On the Summary page of the spreadsheets (page 1), the section below line 35 warrants some discussion. Rental income (line 37) shows income we are getting for leasing some of the space in 44 Beacon. Skipping the lines pulling in the Development income and expense, line 41 shows the income or loss from the investment portfolio. Our normal approach is showing a projected investment income of \$300K for this in the budget given that it is impossible to actually predict a year in advance. Line 42 shows the interest portion of our debt service on 44 Beacon and the non-direct portion of depreciation expense that we record in our financial statements. Line 43 accounts for the change in asset/liability related to interest rate changes to our bond financing for 44 Beacon and similar changes for our CGA liabilities. (Line 44 is relevant only to 2021 since we are accounting for the PPP funding income in that year.)

The total net income (line 45) projects a significant deficit for the proposed 2022 Budget — on par with what we would have had in 2021 had we not been able to include the PPP funding.

Request for Approval of the 2022 budget

We are asking the Council to again approve a deficit budget for next year as you had done a year ago for this year. We base that request on three factors:

- Given our budget performance in 2020 and 2021, most of the \$1.4 million PPP funding has, in fact, gone toward increasing our net assets rather than being used to cover what might otherwise have been covid-induced deficits. This means one can again, *philosophically*, treat most of the PPP funding as being available to cover these projected deficits in 2022 if we find that necessary, recognizing that doing so would mean drawing the funds from the net assets.
- We see no way to significantly reduce the projected deficits without seriously impacting mission-driven programs of the Society at the detriment of the community.
- We are convinced that changes in several aspects of the business models in various programs will be necessary over time, but the next executive director should be guiding that process with advice from the Council, so we feel that we should move forward with

this budget for 2022 that largely mimics that of 2021, and provides the next executive director time to begin shaping the evolution of the Society.

In addition, we would recommend that the Council ask the staff to prepare a revised budget for your review in January 2022 (as you did last year) that can remove much of the uncertainties present now. By January, we have much better data on how we are doing in several major budget areas and especially how the annual meeting has performed financially.

Action: Recommend to Council to approve proposed 2022 Budget.

TAB 3.4
Attachment A

American Meteorological Society
Financial Plan
For the Budget Years 2019 - 2022

Council - September 2021 - 36

Budget Summary

	2019 Actual	2020 Budget (Oct 2019)	2020 Revised (Mar 2020)	2020 Actual	2021 Budget (Jan 2021)	2021 Budget 7 Months to 7/31/2021	2021 Actual 7 Months to 7/31/2021	2021 Var Pos (Neg) 7 Months to 7/31/2021	2022 Budget (Sept 2021)
Income									
1 Membership, BAMS & Career Devel	\$ 2,006,514	\$ 1,992,000	\$ 1,972,000	\$ 1,977,810	\$ 2,128,350	\$ 1,259,600	\$ 1,275,700	\$ 16,100	\$ 2,194,000
2 Publications	7,830,753	7,692,500	7,692,500	7,750,176	7,398,400	4,302,671	4,399,797	97,127	7,446,000
3 Meetings	4,084,376	4,815,500	5,167,645	4,133,665	2,697,000	2,300,885	2,023,524	(277,361)	4,920,000
4 Education	2,098,582	2,097,900	2,055,400	1,968,811	1,981,200	1,113,013	962,429	(150,585)	1,975,000
5 Policy Program	609,538	670,000	685,000	507,986	705,600	386,667	404,263	17,596	702,000
6 Total Income	16,629,763	17,267,900	17,572,545	16,338,449	14,910,550	9,362,836	9,065,714	(297,122)	17,237,000
Direct Expenses									
7 Membership, BAMS & Career Devel	2,024,231	2,063,747	2,105,524	1,980,637	2,154,822	1,215,563	1,133,063	82,500	2,335,982
8 Publications	4,301,393	4,387,391	4,479,107	4,106,149	4,100,112	2,391,732	2,361,737	29,995	4,342,717
9 Meetings	2,873,894	3,380,974	3,467,898	3,080,405	1,722,511	1,245,591	1,119,173	126,418	3,575,757
10 Education	1,791,389	1,693,496	1,701,910	1,523,082	1,824,392	1,053,943	808,036	245,907	1,746,917
11 Policy Program	712,924	600,906	611,417	397,481	606,895	339,189	311,018	28,170	605,981
12 Total Direct Expense	11,703,831	12,126,513	12,365,856	11,087,754	10,408,732	6,246,018	5,733,027	512,990	12,607,353
13 Direct Contribution Margin	4,925,932	5,141,387	5,206,689	5,250,695	4,501,818	3,116,819	3,332,687	215,868	4,629,647
Indirect Expenses									
14 Membership, BAMS & Career Devel	754,636	762,540	807,028	771,627	915,616	530,755	481,450	49,306	948,257
15 Publications	2,085,295	2,107,137	2,100,106	2,007,983	2,243,763	1,300,642	1,252,863	47,779	2,323,751
16 Meetings	843,942	852,781	903,321	863,696	1,031,326	597,829	538,895	58,933	1,068,092
17 Education	544,767	550,473	541,075	517,341	603,703	349,948	322,790	27,158	625,224
18 Policy Program	236,660	239,140	233,855	223,596	236,450	137,063	139,511	(2,448)	244,880
19 Total Indirect Expenses	4,465,300	4,512,071	4,585,385	4,384,242	5,030,858	2,916,237	2,735,509	180,728	5,210,203
Net Income (Loss)									
20 Membership, BAMS & Career Devel	(772,353)	(834,287)	(940,552)	(774,453)	(942,088)	(486,718)	(338,812)	147,906	(1,090,239)
21 Publications	1,444,065	1,197,972	1,113,287	1,636,044	1,054,525	610,297	785,197	174,900	779,532
22 Meetings	366,540	581,745	796,426	189,564	(56,837)	457,465	365,456	(92,009)	276,151
23 Education	(237,574)	(146,069)	(187,585)	(71,611)	(446,895)	(290,878)	(168,397)	122,480	(397,141)
24 Policy Program	(340,046)	(170,046)	(160,272)	(113,091)	(137,745)	(89,585)	(46,266)	43,319	(148,860)
25 Net Operating Income (Loss)	460,632	629,316	621,304	866,453	(529,040)	200,582	597,178	396,596	(580,556)
CSP Transfer									
26 Publications	(560,000)	(560,000)	(560,000)	(560,000)	(495,000)	(288,750)	(288,750)	-	(497,000)
27 Education	250,000	250,000	250,000	250,000	243,000	141,750	141,750	-	245,000
28 Policy Program	190,000	190,000	190,000	190,000	160,000	93,333	93,333	-	160,000
29 Development (below)	120,000	120,000	120,000	120,000	92,000	53,667	53,667	-	92,000
Adjusted/Budgeted Net Income (Loss)									
30 Membership, BAMS & Career Devel	(772,353)	(834,287)	(940,552)	(774,453)	(942,088)	(486,718)	(338,812)	147,906	(1,090,239)
31 Publications	884,065	637,972	553,287	1,076,044	559,525	321,547	496,447	174,900	282,532
32 Meetings	366,540	581,745	796,426	189,564	(56,837)	457,465	365,456	(92,009)	276,151
33 Education	12,426	103,931	62,415	178,389	(203,895)	(149,128)	(26,647)	122,480	(152,141)
34 Policy Program	(150,046)	19,954	29,728	76,909	22,255	3,748	47,067	43,319	11,140
35 Adjusted/Budgeted Net Income (Loss)	340,632	509,316	501,304	746,453	(621,040)	146,915	543,511	396,596	(672,556)
Other Income (Expense)									
36 Centennial	(71,320)	(100,000)	(55,000)	(29,325)	-	-	-	-	-
37 Rental Income	59,958	82,000	82,000	90,250	112,000	65,333	72,713	7,380	114,000
38 Development - Income	1,129,896	785,000	598,500	375,440	458,500	124,107	132,567	8,460	460,500
39 Development - Income - CSP Transfer	120,000	120,000	120,000	120,000	92,000	53,667	53,667	-	92,000
40 Development - Expense	(704,830)	(602,505)	(564,820)	(445,568)	(484,421)	(375,829)	(344,861)	30,968	(495,995)
41 Investment Income (Loss)	1,341,244	300,000	300,000	1,181,536	300,000	175,000	1,031,352	856,352	300,000
42 Interest Exp & Depreciation (indirect)	(432,727)	(425,000)	(450,000)	(404,629)	(400,000)	(233,333)	(222,337)	10,996	(380,000)
43 Int Rate Swap/CGA Liab Change/Other	(2,568)	30,000	30,000	(83,973)	-	-	44,316	44,316	-
44 Loan Forgiveness - PPP					1,400,000	1,400,000	1,409,142	9,142	-
45 Net Income (Loss)	\$ 1,780,285	\$ 698,811	\$ 561,984	\$ 1,550,186	\$ 857,039	\$ 1,355,860	\$ 2,720,069	\$ 1,364,210	\$ (582,051)

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Membership, BAMS & Career Devel

	2019 Actual	2020 Budget (Oct 2019)	2020 Revised (Mar 2020)	2020 Actual	2021 Budget (Jan 2021)	2021 Budget 7 Months to 7/31/2021	2021 Actual 7 Months to 7/31/2021	2021 Var Pos (Neg) 7 Months to 7/31/2021	2022 Budget (Sept 2021)
Income									
1 Dues	\$ 1,113,457	\$ 1,100,000	\$ 1,080,000	\$ 1,057,861	\$ 1,020,000	\$ 595,000	\$ 588,608	(6,392)	\$ 1,000,000
1a Dues - Enthusiast	-	35,000	35,000	379	50,000	29,167	4,993	(24,173)	35,000
2 Certifications	212,155	210,000	210,000	203,638	195,000	195,000	195,407	407	205,000
3 Subscriptions	51,958	50,000	50,000	42,885	80,000	46,667	24,560	(22,107)	40,000
4 Author Charges	520,876	500,000	500,000	557,075	540,000	315,000	379,373	64,373	600,000
5 Sales	11,528	7,000	7,000	13,078	20,000	11,667	1,639	(10,028)	-
6 Advertising	96,353	90,000	90,000	79,545	30,000	17,500	12,694	(4,806)	20,000
6a Advertising - Employment					45,000	26,250	23,545	(2,705)	40,000
7 Grants income				23,350	148,350	23,350	-	(23,350)	125,000
8 Career Devel Short Courses							44,882	44,882	129,000
9 Total Income	2,006,514	1,992,000	1,972,000	1,977,810	2,128,350	1,259,600	1,275,700	16,100	2,194,000
Direct Expenses									
10 Salaries and Benefits - Direct	1,400,673	1,528,747	1,570,524	1,513,240	1,577,822	920,396	825,408	94,988	1,644,982
11 Composition/Printing	312,169	257,000	257,000	188,545	160,000	93,333	116,954	(23,621)	200,000
12 Consulting - BAMS Design & Support	18,720	25,000	25,000	31,370	15,000	8,750	25,290	(16,540)	30,000
13 Postage	101,392	54,000	54,000	44,179	40,000	23,333	19,133	4,200	36,000
14 Online Community Platform	36,000	54,000	54,000	36,000	69,000	40,250	35,850	4,400	69,000
15 Weatherwise	32,428	25,000	25,000	23,050	50,000	29,167	4,744	24,423	25,000
16 Other	34,099	30,000	30,000	56,612	70,000	40,833	45,696	(4,862)	90,000
17 AIP, AGI and Sigma Xi Membership	88,750	90,000	90,000	87,640	90,000	52,500	52,987	(487)	92,000
18 Grants expense					83,000	7,000	7,000	-	80,000
19 Career Devel Short Courses									69,000
20 Total Direct Expenses	2,024,231	2,063,747	2,105,524	1,980,637	2,154,822	1,215,563	1,133,063	82,500	2,335,982
21 Direct Contribution Margin	(17,717)	(71,747)	(133,524)	(2,826)	(26,472)	44,037	142,638	98,601	(141,982)
Indirect Expenses									
22 Salaries and Benefits - Indirect	385,374	405,105	436,900	431,055	521,586	291,364	254,559	36,805	575,157
23 Equipment/Supplies/Software	107,990	118,300	110,880	113,055	123,760	72,193	74,657	(2,463)	128,310
24 Building/Rent/Utilities	97,608	97,175	111,408	98,111	113,750	66,354	58,162	8,192	104,650
25 Administrative and General	163,664	141,960	147,840	129,406	156,520	100,844	94,072	6,772	140,140
26 Total Indirect Expenses	754,636	762,540	807,028	771,627	915,616	530,755	481,450	49,306	948,257
27 Total Expense	2,778,867	2,826,287	2,912,552	2,752,264	3,070,438	1,746,318	1,614,512	131,806	3,284,239
28 Net Income (Loss)	\$ (772,353)	\$ (834,287)	\$ (940,552)	\$ (774,453)	\$ (942,088)	\$ (486,718)	\$ (338,812)	\$ 147,906	\$ (1,090,239)
29 CSP Transfer	-	-	-	-	-	-	-	-	-
30 Budgeted Net Income (Loss)	\$ (772,353)	\$ (834,287)	\$ (940,552)	\$ (774,453)	\$ (942,088)	\$ (486,718)	\$ (338,812)	\$ 147,906	\$ (1,090,239)

Notes:

2019 Overhead Allocation: Member, Career Development, and BAMS 16.9%; Journals 46.7%; Meetings 18.9%; Education 12.2%; Policy 5.3%.

2020 Overhead Allocation: Member, Career Development, and BAMS 17.6%; Journals 45.8%; Meetings 19.7%; Education 11.8%; Policy 5.1%.

2021 Overhead Allocation: Member, Career Development, and BAMS 18.2%; Journals 44.6%; Meetings 20.5%; Education 12.0%; Policy 4.7%.

2022 Overhead Allocation: Member, Career Development, and BAMS 18.2%; Journals 44.6%; Meetings 20.5%; Education 12.0%; Policy 4.7%.

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Publications: Journals & Books

	2019 Actual	2020 Budget (Oct 2019)	2020 Revised (Mar 2020)	2020 Actual	2021 Budget (Jan 2021)	2021 Budget 7 Months to 7/31/2021	2021 Actual 7 Months to 7/31/2021	2021 Var Pos (Neg) 7 Months to 7/31/2021	2022 Budget (Sept 2021)
Income									
1 Subscriptions	\$ 3,089,076	\$ 2,980,000	\$ 2,980,000	\$ 3,123,013	\$ 2,900,000	\$ 1,691,667	\$ 1,765,329	\$ 73,663	\$ 2,940,000
2 Subscription Agent Fees	(31,663)	(33,000)	(33,000)	(32,844)	(31,350)	(31,350)	(29,840)	1,510	(31,000)
3 Author Charges	4,597,216	4,600,000	4,600,000	4,504,242	4,400,000	2,566,667	2,581,757	15,090	4,400,000
4 Sales - Journals	5,414	500	500	2,534	3,000	1,750	3,662	1,912	4,000
5 Royalty Income	101,659	60,000	70,000	87,210	63,000	36,750	46,690	9,940	73,000
6 Sales - Books (U. of Chicago)	50,574	45,000	45,000	43,911	38,250	22,313	20,982	(1,330)	38,000
7 Sales - Books (AMS)	18,477	40,000	30,000	22,110	25,500	14,875	11,218	(3,657)	22,000
8 Total Income	7,830,753	7,692,500	7,692,500	7,750,176	7,398,400	4,302,671	4,399,797	97,127	7,446,000
Direct Expenses									
9 Salaries and Benefits - Direct - Journals/Books	1,521,994	1,428,782	1,565,767	1,430,649	1,461,005	852,253	833,310	18,943	1,508,239
10 Salaries and Benefits - Direct - PRSA	494,264	503,609	518,340	514,944	552,107	322,062	313,646	8,416	580,478
11 Volunteer Editor Support	248,721	235,000	195,000	203,870	180,000	105,000	126,981	(21,981)	200,000
12 Commission Support	28,220	60,000	50,000	-	-	-	-	-	50,000
13 Composition/Printing	1,680,301	1,760,000	1,760,000	1,607,273	1,580,000	921,667	895,779	25,888	1,580,000
14 Online Hosting	241,242	265,000	265,000	257,606	250,000	145,833	143,923	1,910	264,000
15 Postage	31,476	45,000	35,000	32,417	35,000	20,417	17,999	2,417	38,000
16 Books	22,227	62,000	62,000	35,743	40,000	23,333	16,948	6,385	40,000
17 Other	21,350	20,000	20,000	22,640	-	-	13,151	(13,151)	80,000
18 Royalties	11,598	8,000	8,000	1,006	2,000	1,167	-	1,167	2,000
19 Total Direct Expenses	4,301,393	4,387,391	4,479,107	4,106,149	4,100,112	2,391,732	2,361,737	29,995	4,342,717
20 Direct Contribution Margin	3,529,360	3,305,109	3,213,393	3,644,027	3,298,288	1,910,939	2,038,060	127,121	3,103,283
Indirect Expenses									
21. Salaries and Benefits - Indirect	1,064,910	1,119,432	1,136,932	1,121,722	1,278,173	714,001	662,431	51,570	1,409,451
22 Equipment/Supplies/Software	298,408	326,900	288,540	294,199	303,280	176,913	194,277	(17,364)	314,430
23 Building/Rent/Utilities	269,723	268,525	289,914	255,312	278,750	162,604	151,355	11,250	256,450
24 Administrative and General	452,254	392,280	384,720	336,749	383,560	247,123	244,800	2,322	343,420
25 Total Indirect Expenses	2,085,295	2,107,137	2,100,106	2,007,983	2,243,763	1,300,642	1,252,863	47,779	2,323,751
26 Total Expense	6,386,688	6,494,528	6,579,213	6,114,132	6,343,875	3,692,374	3,614,600	77,773	6,666,468
27 Net Income (Loss)	\$ 1,444,065	\$ 1,197,972	\$ 1,113,287	\$ 1,636,044	\$ 1,054,525	\$ 610,297	\$ 785,197	\$ 174,900	\$ 779,532
28 CSP Transfer	(560,000)	(560,000)	(560,000)	(560,000)	(495,000)	(288,750)	(288,750)	-	(497,000)
29 Budgeted Net Income (Loss)	\$ 884,065	\$ 637,972	\$ 553,287	\$ 1,076,044	\$ 559,525	\$ 321,547	\$ 496,447	\$ 174,900	\$ 282,532

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Meetings/Exhibits

	2019 Actual	2020 Budget (Oct 2019)	2020 Revised (Mar 2020)	2020 Actual	2021 Budget (Jan 2021)	2021 Budget 7 Months to 7/31/2021	2021 Actual 7 Months to 7/31/2021	2021 Var Pos (Neg) 7 Months to 7/31/2021	2022 Budget (Sept 2021)
Income									
1 Author Charges	\$ 437,590	\$ 591,000	\$ 559,645	\$ 408,392	\$ 487,000	\$ 425,695	\$ 358,840	\$ (66,855)	\$ 561,000
2 Meetings Registration	2,556,018	3,254,000	3,600,000	2,781,904	1,870,000	1,542,690	1,314,590	(228,100)	3,615,000
3 Exhibits and Career Fair	589,565	612,500	619,500	621,410	170,000	163,000	161,600	(1,400)	546,000
4 Advertising	11,217	15,000	5,000	5,000	-	-	-	-	15,000
5 Meeting Sponsorships/rebates	437,928	278,000	331,000	261,421	170,000	169,500	176,850	7,350	183,000
6 WeatherFest Sponsorships	50	15,000	2,500	3,350	-	-	-	-	-
7 WMO	52,008	50,000	50,000	52,188	-	-	11,644	11,644	-
8 Total Income	4,084,376	4,815,500	5,167,645	4,133,665	2,697,000	2,300,885	2,023,524	(277,361)	4,920,000
Direct Expenses									
9 Salaries and Benefits - Direct	666,566	732,574	735,198	740,538	805,511	469,881	472,024	(2,143)	673,757
10 Printing and Meeting App	43,059	48,400	55,700	52,268	3,000	2,700	2,500	200	175,000
11 On-Site Expense	2,133,987	2,467,000	2,553,000	2,248,341	853,000	716,860	609,929	106,931	2,605,000
12 Program Chair/Student Support	30,282	63,000	63,000	17,161	61,000	56,150	34,720	21,430	122,000
13 Weatherfest	-	20,000	11,000	6,109	-	-	-	-	-
14 WMO	-	50,000	50,000	15,989	-	-	-	-	-
15 Total Direct Expenses	2,873,894	3,380,974	3,467,898	3,080,405	1,722,511	1,245,591	1,119,173	126,418	3,575,757
16 Direct Contribution Margin	1,210,482	1,434,526	1,699,747	1,053,260	974,489	1,055,294	904,351	(150,943)	1,344,243
Indirect Expenses									
17 Salaries and Benefits - Indirect	430,981	453,046	489,030	482,488	587,501	328,185	284,932	43,252	647,842
18 Equipment/Supplies/Software	120,769	132,300	124,110	126,544	139,400	81,317	83,565	(2,248)	144,525
19 Building/Rent/Utilities	109,160	108,675	124,701	109,818	128,125	74,740	65,102	9,637	117,875
20 Administrative and General	183,032	158,760	165,480	144,846	176,300	113,588	105,296	8,292	157,850
21 Total Indirect Expenses	843,942	852,781	903,321	863,696	1,031,326	597,829	538,895	58,933	1,068,092
22 Total Expense	3,717,836	4,233,755	4,371,219	3,944,101	2,753,837	1,843,420	1,658,068	185,352	4,643,849
23 Net Income (Loss)	\$ 366,540	\$ 581,745	\$ 796,426	\$ 189,564	\$ (56,837)	\$ 457,465	\$ 365,456	\$ (92,009)	\$ 276,151
24 CSP Transfer	-	-	-	-	-	-	-	-	-
25 Budgeted Net Income (Loss)	\$ 366,540	\$ 581,745	\$ 796,426	\$ 189,564	\$ (56,837)	\$ 457,465	\$ 365,456	\$ (92,009)	\$ 276,151

Notes:

Number of meetings per year projected for the out years based on normal schedule. Even-numbered years tend to have 3-4 more meetings than odd-numbered, resulting in 15-20% more attendees and presentations.

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Education

	2019 Actual	2020 Budget (Oct 2019)	2020 Revised (Mar 2020)	2020 Actual	2021 Budget (Jan 2021)	2021 Budget 7 Months to 7/31/2021	2021 Actual 7 Months to 7/31/2021	2021 Var Pos (Neg) 7 Months to 7/31/2021	2022 Budget (Sept 2021)
Income									
1 Grants	\$ 485,875	\$ 550,000	\$ 535,000	\$ 422,051	\$ 621,000	\$ 386,000	\$ 242,572	\$ (143,428)	\$ 605,000
2 Corporate support	60,000	35,000	35,000	35,000	35,000	23,080	23,080	0	35,000
3 Licensing Fees/text books	1,458,697	1,350,000	1,380,000	1,452,871	1,250,000	670,000	684,400	14,400	1,300,000
4 Teacher Participation Fees	68,747	132,900	80,400	49,400	55,200	27,600	9,230	(18,370)	20,000
5 Development Contributions	2,560	10,000	5,000	3,089	10,000	500	1,456	956	5,000
6 Educational Materials	22,703	20,000	20,000	6,400	10,000	5,833	1,690	(4,143)	10,000
7 Total Income	2,098,582	2,097,900	2,055,400	1,968,811	1,981,200	1,113,013	962,429	(150,585)	1,975,000
Direct Expenses									
8 Salaries and Benefits - Direct	839,412	870,496	876,910	852,312	901,192	525,695	485,545	40,151	869,917
9 Expenses - Grants	433,147	235,000	225,000	134,298	182,000	113,127	64,408	48,719	141,000
10 Expenses - Consulting	91,266	188,000	200,000	212,739	396,000	231,000	130,698	100,302	402,000
11 Expenses - Licensing Fees/Textbooks	427,564	400,000	400,000	323,733	320,000	171,520	111,185	60,335	325,000
12 Expenses - Teacher Participation Fees					25,200	12,600	16,200	(3,600)	9,000
13 Total Direct Expenses	1,791,389	1,693,496	1,701,910	1,523,082	1,824,392	1,053,943	808,036	245,907	1,746,917
14 Direct Contribution Margin	307,193	404,404	353,490	445,729	156,808	59,071	154,393	95,322	228,083
Indirect Expenses									
15 Salaries and Benefits - Indirect	278,199	292,443	292,921	289,003	343,903	192,108	170,670	21,438	379,224
16 Equipment/Supplies/Software	77,957	85,400	74,340	75,798	81,600	47,600	50,054	(2,454)	84,600
17 Building/Rent/Utilities	70,463	70,150	74,694	65,779	75,000	43,750	38,995	4,755	69,000
18 Administrative and General	118,148	102,480	99,120	86,761	103,200	66,490	63,071	3,420	92,400
19 Total Indirect Expenses	544,767	550,473	541,075	517,341	603,703	349,948	322,790	27,158	625,224
20 Total Expense	2,336,156	2,243,969	2,242,985	2,040,423	2,428,095	1,403,891	1,130,826	273,065	2,372,141
21 Net Income (Loss)	\$ (237,574)	\$ (146,069)	\$ (187,585)	\$ (71,611)	\$ (446,895)	\$ (290,878)	\$ (168,397)	\$ 122,480	\$ (397,141)
22 Transfer to Education Reserve									
23 CSP Transfer	250,000	250,000	250,000	250,000	243,000	141,750	141,750	-	245,000
24 Budgeted Net Income (Loss)	\$ 12,426	\$ 103,931	\$ 62,415	\$ 178,389	\$ (203,895)	\$ (149,128)	\$ (26,647)	\$ 122,480	\$ (152,141)

Notes:

Grants include: NOAA DataStreme/Project Atmos, NASA Project Atmos, and Maury Project (ONR)

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Policy Program

	2019 Actual	2020 Budget (Oct 2019)	2020 Revised (Mar 2020)	2020 Actual	2021 Budget (Jan 2021)	2021 Budget 7 Months to 7/31/2021	2021 Actual 7 Months to 7/31/2021	2021 Var Pos (Neg) 7 Months to 7/31/2021	2022 Budget (Sept 2021)
Income									
1 Grants (Federal)	\$ 298,922	\$ 475,000	\$ 505,000	\$ 340,379	\$ 520,000	\$ 324,917	\$ 371,560	\$ 46,643	\$ 528,000
2 Corporate Support	85,417	100,000	90,000	100,000	105,000	61,250	32,103	(29,147)	100,000
3 Summer Colloquium (tuition)	91,500	85,000	85,000	37,800	75,600	-	-	-	66,000
4 Development Contributions	3,679	10,000	5,000	29,807	5,000	500	600	100	8,000
5 NCA Advisory	130,020	-	-	-	-	-	-	-	-
6 Total Income	609,538	670,000	685,000	507,986	705,600	386,667	404,263	17,596	702,000
Direct Expenses									
7 Salaries and Benefits - Direct	322,672	389,906	410,417	350,244	505,895	295,105	280,552	14,554	485,981
8 Miscellaneous Direct Costs	36,248	20,000	30,000	14,237	15,000	8,750	7,467	1,284	15,000
9 Summer Colloquium	105,063	117,000	97,000	-	27,000	-	-	-	67,000
10 Congressional Fellow - Salaries & Exp	62,637	-	-	-	-	-	-	-	-
11 National Studies	22,120	66,000	66,000	33,000	55,000	33,000	23,000	10,000	38,000
12 Public Briefing Series	-	8,000	8,000	-	4,000	2,333	-	2,333	-
13 NCA Advisory	164,184	-	-	-	-	-	-	-	-
14 Total Direct Expenses	712,924	600,906	611,417	397,481	606,895	339,189	311,018	28,170	605,981
15 Direct Contribution Margin	(103,386)	69,094	73,583	110,505	98,705	47,478	93,245	45,767	96,019
Indirect Expenses									
16 Salaries and Benefits - Indirect	120,857	127,045	126,602	124,908	134,695	75,242	73,764	1,478	148,530
17 Equipment/Supplies/Software	33,866	37,100	32,130	32,760	31,960	18,643	21,633	(2,990)	33,135
18 Building/Rent/Utilities	30,611	30,475	32,283	28,430	29,375	17,135	16,854	282	27,025
19 Administrative and General	51,326	44,520	42,840	37,498	40,420	26,042	27,259	(1,217)	36,190
20 Total Indirect Expenses	236,660	239,140	233,855	223,596	236,450	137,063	139,511	(2,448)	244,880
21 Total Expense	949,584	840,046	845,272	621,077	843,345	476,252	450,529	25,723	850,860
22 Net Income (Loss)	\$ (340,046)	\$ (170,046)	\$ (160,272)	\$ (113,091)	\$ (137,745)	\$ (89,585)	\$ (46,266)	\$ 43,319	\$ (148,860)
23 Transfer to APP Reserve									
24 CSP Transfer	190,000	190,000	190,000	190,000	160,000	93,333	93,333	-	160,000
25 Budgeted Net Income (Loss)	\$ (150,046)	\$ 19,954	\$ 29,728	\$ 76,909	\$ 22,255	\$ 3,748	\$ 47,067	\$ 43,319	\$ 11,140

American Meteorological Society
Financial Plan
For the Budget Years 2019 - 2022

Council - September 2021 - 42

Development

	2019 Actual	2020 Budget (Oct 2019)	2020 Revised (Mar 2020)	2020 Actual	2021 Budget (Jan 2021)	2021 Budget 7 Months to 7/31/2021	2021 Actual 7 Months to 7/31/2021	2021 Var Pos (Neg) 7 Months to 7/31/2021	2022 Budget (Sept 2021)
Income									
1 Contributions	\$ 845,759	\$ 500,000	\$ 275,000	\$ 146,035	\$ 205,000	\$ 20,500	\$ 26,017	\$ 5,517	\$ 205,000
2 Less: Management Fee		-	(27,500)	(14,603)	(20,500)	(2,050)	(2,602)	(552)	(20,500)
3 Fellowships	122,333	125,000	103,000	97,833	83,000	45,833	45,833	0	83,000
4 Scholarships - Named Funds		180,000	175,000	104,871	130,000	26,774	26,774	-	130,000
5 Scholarships - Corporate	168,043	-	36,000	40,000	36,000	12,500	12,500	-	36,000
6 Management Fee - Contributions		-	27,500	14,603	20,500	2,050	2,602	552	20,500
7 Management Fee - Named Funds		-	19,500	19,597	19,500	19,500	23,498	3,998	19,500
8 Contribution Transfer to Policy	(3,679)	(10,000)	(5,000)	(29,807)	(5,000)	(500)	(600)	(100)	(8,000)
9 Contribution Transfer to Education	(2,560)	(10,000)	(5,000)	(3,089)	(10,000)	(500)	(1,456)	(956)	(5,000)
10 Net Total Income	1,129,896	785,000	598,500	375,440	458,500	124,107	132,567	8,460	460,500
Direct Expenses									
11 Salaries and Benefits - Direct	119,029	117,505	136,820	118,013	151,421	88,329	86,638	1,691	162,995
12 Fellowships Paid	145,833	125,000	128,000	93,667	83,000	79,167	79,167	0	83,000
13 Scholarships Paid	171,500	180,000	180,000	164,000	150,000	150,000	157,500	(7,500)	150,000
14 Development Fund Expenditures	236,951	150,000	90,000	55,044	90,000	52,500	16,834	35,666	90,000
15 Program Costs	31,517	30,000	30,000	14,844	10,000	5,833	4,722	1,111	10,000
16 Total Direct Expenses	704,830	602,505	564,820	445,568	484,421	375,829	344,861	30,968	495,995
17 Direct Contribution Margin	425,066	182,495	33,680	(70,127)	(25,921)	(251,722)	(212,294)	39,428	(35,495)
Indirect Expenses	-	-	-	-	-	-	-	-	-
18 Total Expense	704,830	602,505	564,820	445,568	484,421	375,829	344,861	30,968	495,995
19 Net Income (Loss)	\$ 425,066	\$ 182,495	\$ 33,680	\$ (70,127)	\$ (25,921)	\$ (251,722)	\$ (212,294)	\$ 39,428	\$ (35,495)
20 CSP Transfer	120,000	120,000	120,000	120,000	92,000	53,667	53,667	-	92,000
21 Budgeted Net Income (Loss)	\$ 545,066	\$ 302,495	\$ 153,680	\$ 49,873	\$ 66,079	\$ (198,056)	\$ (158,628)	\$ 39,428	\$ 56,505

Notes:

Market value of endowment funds on deposit at Webster Private Bank as of 12/31/20 and 7/31/21 was \$4,699,650, and \$5,302,236, respectively.

Market value of CGA funds on deposit at PNC Bank as of 12/31/20 and 7/31/21 was \$617,202, and \$639,496, respectively.

Council - September 2021 - 43

Allocation

I. Equipment and Supplies

Capitalized NetForum Expense (SOFTWARE)
Consulting - IT
Office Expense
Computer expense

2019 Actual	2020 Budget (Oct 2019)	2020 Revised (Mar 2020)	2020 Actual	2021 Budget (Jan 2021)	2021 Budget 7 Months to 7/31/2021	2021 Actual 7 Months to 7/31/2021	2021 Var Pos (Neg) 7 Months to 7/31/2021	2022 Budget (Sept 2021)
\$ 98,875	\$ 50,000	\$ 75,000	\$ 83,089	\$ 90,000	\$ 52,500	\$ 51,654	\$ 847	\$ 75,000
284,484	260,000	280,000	276,479	280,000	163,333	161,171	2,163	280,000
113,673	210,000	125,000	117,426	135,000	78,750	86,402	(7,652)	150,000
141,958	180,000	150,000	165,362	175,000	102,083	124,960	(22,876)	200,000
638,990	700,000	630,000	642,356	680,000	396,667	424,186	(27,519)	705,000

Allocation between departments:

- BAMS
- Membership and Career Development
- Journals
- Meetings
- Education
- Policy

53,995	59,150	55,440	56,527	61,880	36,097	37,328	(1,232)	64,155
53,995	59,150	55,440	56,527	61,880	36,097	37,328	(1,232)	64,155
298,408	326,900	288,540	294,199	303,280	176,913	194,277	(17,364)	314,430
120,769	132,300	124,110	126,544	139,400	81,317	83,565	(2,248)	144,525
77,957	85,400	74,340	75,798	81,600	47,600	50,054	(2,454)	84,600
33,866	37,100	32,130	32,760	31,960	18,643	21,633	(2,990)	33,135
638,990	700,000	630,000	642,356	680,000	396,667	424,186	(27,519)	705,000

II. Rent/Utilities/Other

Washington office
Electric, Heat
Maintenance
Maintenance - Reserve Funding
Miscellaneous
Cleaning

381,651	400,000	400,000	384,225	400,000	233,333	221,983	11,351	400,000
71,833	80,000	80,000	56,169	70,000	40,833	35,432	5,402	70,000
98,281	70,000	75,000	92,757	75,000	43,750	29,887	13,863	75,000
-	-	50,000	0	50,000	29,167	29,167	(0)	-
-	-	-	-	-	-	-	-	-
25,800	25,000	28,000	24,300	30,000	17,500	14,000	3,500	30,000
577,565	575,000	633,000	557,451	625,000	364,583	330,469	34,115	575,000

Allocation between departments:

- BAMS
- Membership and Career Development
- Journals
- Meetings
- Education
- Policy

48,804	48,588	55,704	49,056	56,875	33,177	29,081	4,096	52,325
48,804	48,588	55,704	49,056	56,875	33,177	29,081	4,096	52,325
269,723	268,525	289,914	255,312	278,750	162,604	151,355	11,250	256,450
109,160	108,675	124,701	109,818	128,125	74,740	65,102	9,637	117,875
70,463	70,150	74,694	65,779	75,000	43,750	38,995	4,755	69,000
30,611	30,475	32,283	28,430	29,375	17,135	16,854	282	27,025
577,565	575,000	633,000	557,451	625,000	364,583	330,469	34,115	575,000

III. Administrative and General

- Bank Charges
- Audit
- Consulting - Fundraising/Misc Admin
- Insurance
- Council
- Telecommunications
- Postage
- Misc (AMEX)
- Travel
- Legal

282,998	280,000	280,000	253,726	280,000	163,333	138,938	24,395	250,000
129,826	125,000	125,000	121,375	125,000	83,670	83,670	-	125,000
111,643	50,000	50,000	30,927	30,000	17,500	31,058	(13,558)	60,000
103,392	110,000	110,000	99,325	110,000	64,167	61,113	3,054	110,000
109,829	100,000	100,000	56,668	150,000	129,167	123,513	5,654	75,000
61,289	65,000	65,000	116,542	75,000	43,750	82,476	(38,726)	90,000
24,745	20,000	20,000	6,829	10,000	5,833	11,017	(5,184)	10,000
20,442	25,000	25,000	7,547	15,000	8,750	1,013	7,737	10,000
5,259	15,000	15,000	1,197	15,000	8,750	-	8,750	10,000
119,001	50,000	50,000	41,125	50,000	29,167	1,700	27,467	30,000
968,424	840,000	840,000	735,261	860,000	554,087	534,498	19,588	770,000

Allocation between departments:

- BAMS
- Membership and Career Development
- Journals
- Meetings
- Education
- Policy

81,832	70,980	73,920	64,703	78,260	50,422	47,036	3,386	70,070
81,832	70,980	73,920	64,703	78,260	50,422	47,036	3,386	70,070
452,254	392,280	384,720	336,749	383,560	247,123	244,800	2,322	343,420
183,032	158,760	165,480	144,846	176,300	113,588	105,296	8,292	157,850
118,148	102,480	99,120	86,761	103,200	66,490	63,071	3,420	92,400
51,326	44,520	42,840	37,498	40,420	26,042	27,259	(1,217)	36,190
968,424	840,000	840,000	735,261	860,000	554,087	534,498	19,588	770,000

IV. Indirect Salaries and Benefits

Council
Finance & Admin
IT, Proj Mgt, DPAD (frmly IT line)
Exec and Exec Admin (frnly Admin. Line)

532,521	546,198	613,384	612,568	581,468	339,190	331,009	8,181	616,874
986,250	1,035,742	1,066,828	1,051,829	1,200,979	690,063	608,690	81,374	1,302,690
761,551	815,131	802,173	784,778	1,083,411	571,647	506,658	64,989	1,240,633
2,280,322	2,397,071	2,482,385	2,449,175	2,865,858	1,600,900	1,446,356	154,544	3,160,203

Allocation between departments:

- BAMS
- Membership and Career Development
- Journals
- Meetings
- Education
- Policy

192,687	202,552	218,450	215,527	260,793	145,682	127,279	18,403	287,578
192,687	202,552	218,450	215,527	260,793	145,682	127,279	18,403	287,578
1,064,910	1,119,432	1,136,932	1,121,722	1,278,173	714,001	662,431	51,570	1,409,451
430,981	453,046	489,030	482,488	587,501	328,185	284,932	43,252	647,842
278,199	292,443	292,921	289,003	343,903	192,108	170,670	21,438	379,224
120,857	127,045	126,602	124,908	134,695	75,242	73,764	1,478	148,536
2,280,321	2,397,071	2,482,385	2,449,175	2,865,588	1,600,900	1,446,356	154,544	3,160,203

SUMMARY I - III

Allocation between departments:

- BAMS
- Membership and Career Development
- Journals
- Meetings
- Education
- Policy

[illegible]

TAB 3.5

AMS Net Assets History

Year	Net Income	Unrestricted	Restricted	Total
2020	1,566,596	7,454,424	5,239,989	12,694,413
2019	1,780,282	6,650,386	4,477,431	11,127,817
2018	(1,687,686)	5,988,864	3,358,671	9,347,535
2017	(797,254)	7,732,252	3,302,969	11,035,221
2016	(923,568)	9,250,006	2,765,643	12,015,649
2015	(1,367,265)	10,351,557	2,587,660	12,939,217
2014	537,877	11,920,796	2,385,686	14,306,482
2013	104,468	11,382,919	2,379,649	13,762,568
2012	1,006,655	10,338,151	2,377,439	12,715,590
2011	(65,519)	9,320,980	2,305,284	11,626,264
2010	1,049,038	9,386,499	2,106,831	11,493,330
2009	944,708	8,337,461	2,082,405	10,419,866
2008	(2,910,594)	7,392,753	2,047,731	9,440,484
2007	242,190	10,306,123	2,044,955	12,351,078
2006	547,046	10,036,513	1,802,649	11,839,162
2005	155,000	9,489,467	1,665,994	11,155,461
2004	125,042	9,334,827	1,565,940	10,900,767
2003	(334,470)	9,209,785	1,439,473	10,649,258
2002	(1,741,148)	9,544,255	1,360,720	10,904,975
2001	(926,605)	11,285,403	1,341,972	12,627,375
2000	(350,968)	12,212,008	1,100,436	13,312,444
1999	273,982	12,562,976	1,489,825	14,052,801
1998	735,112	12,288,994	1,608,332	13,897,326
1997	767,252	11,553,882	1,472,119	13,026,001
1996	564,000	10,786,630	1,269,640	12,056,270

TAB 3.6
Audited Financial Statements

Attachment A provides the Audited Financial Statements for 2020.

Joe and I will be happy to answer any questions you might have on any of this.

TAB 3.6
Attachment A

AMERICAN METEOROLOGICAL SOCIETY

**FINANCIAL STATEMENTS
YEAR ENDED DECEMBER 31, 2020**

tonneson + co

Certified Public Accountants & Consultants

AMERICAN METEOROLOGICAL SOCIETY**TABLE OF CONTENTS**

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INDEPENDENT AUDITOR'S REPORT

To the Executive Committee
American Meteorological Society
Boston, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of American Meteorological Society (the "Society") which comprise the statement of financial position as of December 31, 2020, and the related statements of activities, functional expenses, and cash flows for the year then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Society's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Society's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of American Meteorological Society as of December 31, 2020, and the changes in its net assets and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Tonneson & Company, PC

Wakefield, Massachusetts
September 8, 2021

tonneson + co

Certified Public Accountants & Consultants

AMERICAN METEOROLOGICAL SOCIETY**STATEMENT OF FINANCIAL POSITION****DECEMBER 31, 2020****ASSETS****ASSETS:**

Cash and cash equivalents	\$	3,632,711
Accounts receivable		811,216
Pledges receivable, net		219,335
Investments		8,946,855
Inventories		63,429
Property and equipment, net		9,519,600
Prepaid expenses and other current assets		762,418
		<hr/>
TOTAL ASSETS	\$	23,955,564
		<hr/> <hr/>

LIABILITIES AND NET ASSETS**LIABILITIES:**

Note payable, PPP loan	\$	1,409,142
Long-term debt		3,634,780
Accounts payable and accrued expenses		1,090,659
Deferred revenue		4,724,432
Charitable gift annuity liability		189,341
Fair value of interest rate swap agreement		118,848
Deferred rent		93,949
Commitments		-
		<hr/>
TOTAL LIABILITIES		11,261,151
		<hr/>

NET ASSETS:

Without donor restrictions		7,454,424
With donor restrictions		5,239,989
		<hr/>
TOTAL NET ASSETS		12,694,413
		<hr/>
TOTAL LIABILITIES AND NET ASSETS	\$	23,955,564
		<hr/> <hr/>

AMERICAN METEOROLOGICAL SOCIETY**STATEMENT OF ACTIVITIES****YEAR ENDED DECEMBER 31, 2020**

	<u>Without Donor Restrictions</u>	<u>With Donor Restrictions</u>	<u>Total</u>
SUPPORT AND REVENUE:			
Publications	\$ 7,795,026	\$ -	\$ 7,795,026
Meetings and exhibits	4,133,665	-	4,133,665
Membership and communication	1,971,831	-	1,971,831
Other educational assistance	1,681,471	-	1,681,471
Federal financial assistance	786,079	-	786,079
Investment income	453,236	700,229	1,153,465
Contributions	162,103	226,961	389,064
Rental income	90,250	-	90,250
Net assets released from restrictions	164,632	(164,632)	-
	<u>17,238,293</u>	<u>762,558</u>	<u>18,000,851</u>
EXPENSES:			
Program services:			
Publications	5,271,666	-	5,271,666
Education and policy programs	2,382,859	-	2,382,859
Meetings and exhibits	3,519,884	-	3,519,884
Membership and communication	2,731,597	-	2,731,597
Student programs	460,953	-	460,953
Supporting services:			
Administrative and general	1,809,918	-	1,809,918
Development	257,378	-	257,378
	<u>16,434,255</u>	<u>-</u>	<u>16,434,255</u>
INCREASE IN NET ASSETS	804,038	762,558	1,566,596
NET ASSETS, BEGINNING OF YEAR	<u>6,650,386</u>	<u>4,477,431</u>	<u>11,127,817</u>
NET ASSETS, END OF YEAR	<u>\$ 7,454,424</u>	<u>\$ 5,239,989</u>	<u>\$ 12,694,413</u>

AMERICAN METEOROLOGICAL SOCIETY**STATEMENT OF FUNCTIONAL EXPENSES****YEAR ENDED DECEMBER 31, 2020**

	Program Services					Supporting Services		Total
	Publications	Education and Policy Programs	Meetings and Exhibits	Membership and Communication	Student Programs	Administrative and General	Development	
Payroll and related taxes	\$ 1,912,109	\$ 1,141,298	\$ 726,151	\$ 1,460,839	\$ 116,520	\$ 1,126,352	\$ 152,822	\$ 6,636,091
Conferences and meetings expense	-	-	2,334,107	-	-	-	-	2,334,107
Journal production and mailing	1,643,544	-	-	251,273.00	-	-	-	1,894,817
Employee benefits, health and welfare	226,717	135,323	86,099	173,210	13,816	133,550	18,120	786,835
Employee benefits - retirement	157,378	93,935	59,766	120,235	9,590	92,707	12,578	546,189
Consulting	143,988	155,629	43,730	75,220	6,345	32,884	34,465	492,261
Occupancy	128,075	61,369	48,028	88,052	8,005	45,063	5,633	384,225
Depreciation and amortization	94,088	45,084	35,283	145,669	5,881	33,106	4,138	363,249
Education books production	-	313,824	-	-	-	-	-	313,824
Education programs and workshops	-	282,750	-	-	-	-	-	282,750
Online hosting	269,606	-	-	-	-	-	-	269,606
Student scholarships and fellowships	-	-	-	-	255,667	-	-	255,667
Bank charges and fees	127,713	-	67,905	32,776	-	25,333	-	253,727
Volunteer editor support	221,370	-	-	-	-	-	-	221,370
Interest expense	67,315	32,255	25,243	46,279	4,207	23,684	2,961	201,944
Computer expense	61,448	29,444	23,043	42,246	3,841	21,620	2,703	184,345
Professional fees	-	-	-	-	-	162,500	-	162,500
Telephone	38,847	18,614	14,568	26,708	2,428	13,668	1,709	116,542
Office supplies and expense	35,355	16,941	13,258	24,307	2,210	12,440	1,555	106,066
Insurance	33,108	15,864	12,416	22,762	2,069	11,650	1,456	99,325
Repairs and maintenance	30,919	14,815	11,595	21,257	1,932	10,879	1,360	92,757
Affiliate membership dues	-	-	-	87,640	-	-	-	87,640
Utilities	18,723	8,971	7,021	12,872	1,170	6,589	823	56,169
Council and committee	-	-	-	-	-	51,363	-	51,363
Membership communication expense	-	-	-	42,644	-	-	-	42,644
Other membership expenses	-	-	-	32,012	-	-	-	32,012
Book production and mailing	30,025	-	-	-	-	-	-	30,025
Centennial expenses	9,775	-	9,775	9,775	-	-	-	29,325
Student programs	-	-	-	-	26,973	-	-	26,973
Dues and subscriptions	16,771	3,509	99	-	-	3,649	-	24,028
Fundraising expenses other	-	-	-	-	-	-	16,844	16,844
Merchandise for resale	-	-	-	12,527	-	-	-	12,527
Policy programs	-	10,938	-	-	-	-	-	10,938
Miscellaneous	2,516	1,205	943	1,729	157	883	111	7,544
Postage	2,276	1,091	854	1,565	142	801	100	6,829
Travel	-	-	-	-	-	1,197	-	1,197
	<u>\$ 5,271,666</u>	<u>\$ 2,382,859</u>	<u>\$ 3,519,884</u>	<u>\$ 2,731,597</u>	<u>\$ 460,953</u>	<u>\$ 1,809,918</u>	<u>\$ 257,378</u>	<u>\$ 16,434,255</u>

See Notes to Financial Statements.

AMERICAN METEOROLOGICAL SOCIETY**STATEMENT OF CASH FLOWS****YEAR ENDED DECEMBER 31, 2020****CASH FLOWS FROM OPERATING ACTIVITIES:**

Cash received from publications	\$ 7,352,772
Cash received from meetings and exhibits	2,376,183
Cash received from membership and communication	1,985,195
Cash received from education and policy programs	1,733,971
Cash received from other activities	(38,497)
Interest and dividends received	136,152
Cash received from rental income	90,250
Cash received from contributions	1,125,718
Cash payments for salaries, benefits, and payroll taxes	(7,860,936)
Cash payments to vendors	(7,576,404)
Interest paid	<u>(121,053)</u>

Net cash used in operating activities (796,649)

CASH FLOWS FROM INVESTING ACTIVITIES:

Purchase of property and equipment	(53,125)
Proceeds from sale of investments	1,631,547
Purchase of investments	<u>(1,855,365)</u>

Net cash used in investing activities (276,943)

CASH FLOWS FROM FINANCING ACTIVITIES:

Payments on note payable, bank	(500,000)
Proceeds from note payable, PPP loan	1,409,142
Payments on long-term debt	(183,333)
Contributions restricted for endowment	93,011
Payments to charitable gift annuitants	(21,765)
Financing fees	<u>(17,637)</u>

Net cash provided by financing activities 779,418

NET DECREASE IN CASH (294,174)

CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR 3,926,885

CASH AND CASH EQUIVALENTS, END OF YEAR \$ 3,632,711

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 1 - Summary of Significant Accounting Policies**

Nature of Activities - American Meteorological Society was formed in 1919. Interdisciplinary in scope, the Society actively promotes the development and dissemination of information on the atmospheric and related oceanic and hydrologic sciences.

Basis of Accounting - The financial statements of the Society have been prepared on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP).

Basis of Presentation - Under U.S. GAAP, the Society is required to report information regarding its financial position and activities according to the following net asset classifications:

Net assets without donor restrictions: Net assets that are not subject to donor-imposed restrictions and may be expended for any purpose in performing the primary objectives of the Society. These assets may be used at the discretion of the Society's management and executive committee.

Net assets with donor restrictions: Net assets subject to stipulations imposed by donors, and grantors. Some donor restrictions are temporary in nature; those restrictions will be met by action of the Society or by the passage of time. Other donor restrictions are perpetual in nature, whereby the donor has stipulated the funds be maintained in perpetuity.

Estimates - The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash and Cash Equivalents - Cash and cash equivalents consist of highly liquid investments with original maturities of ninety days or less. Cash equivalents are carried at cost which approximates fair value.

Accounts Receivable - Accounts receivable are stated at the amount the Society's management expects to collect from outstanding balances. Management provides for probable uncollectible amounts through a charge to earnings and a credit to a valuation allowance based on historical collection experience, its assessment of current economic conditions, review and assessment of estimated funding sources, and the financial condition of the debtor. Balances which are still outstanding after the Society's management has used reasonable collection efforts are written off through a charge to the valuation allowance and a credit to accounts receivable. Accounts receivable have been reviewed by management and it has been determined that there is no requirement for an allowance for doubtful accounts as of December 31, 2020.

Pledges Receivable - Contributions, including unconditional promises to give, are recognized as revenues in the period received. Conditional promises to give are not recognized until they become unconditional; that is, when the conditions on which they depend are substantially met. Contributions of assets other than cash are recorded at their estimated fair value. Management provides for probable uncollectible amounts through a charge to earnings and a credit to a valuation allowance based on its assessment of the status of individual accounts. Balances that are still outstanding after management has used reasonable collection efforts are written off through a charge to the valuation allowance and a credit to pledges receivable. Pledges receivable have been reviewed by management and it has been determined that there is no requirement for an allowance for doubtful accounts as of December 31, 2020.

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 1 - Summary of Significant Accounting Policies (Continued)**

Investments - The Society reports its investments pursuant to U.S. generally accepted accounting principles. Investments in marketable securities with readily determinable fair values and all investments in debt securities are stated at fair value in the Statement of Financial Position. Unrealized gains and losses are included in the change in net assets in the accompanying Statement of Activities. Gains and losses on the disposition of investments are accounted for on the average cost method for equities and specific identification method for other securities. Investment income and gains restricted by donors are reported as increases in net assets with donor restrictions. When a restriction expires (that is, when a stipulated time restriction ends, or purpose restriction is accomplished), net assets with donor restrictions are reclassified to net assets without donor restrictions and reported in the Statement of Activities as net assets released from restriction.

The Society maintains a master investment account for its donor-restricted endowments, unless specifically requested by the donor to be segregated. Realized and unrealized gains and losses from securities in the master account are allocated monthly to the individual endowments based on the relationship of the market value of each endowment to the total market value of the master investment account, as adjusted for additions to or deductions from those accounts.

The Society maintains an investment portfolio consisting of a combination of long-term cash and cash equivalents, fixed income, common stocks, and equity securities. Investment securities are exposed to various risks, such as interest rate, market, and credit risks. Due to the level of risk associated with certain investments, it is at least reasonably possible that changes in the value of these investments will occur in the near term and such changes could materially affect the Society's investment account balances.

Inventories - Inventories, consisting primarily of periodicals and books, are stated at net realizable value.

Property and Equipment - Property and equipment are carried at cost or, if donated, at the approximate fair value at the date of donation. Depreciation is computed using primarily the straight-line method over the estimated useful lives of the assets which range from three to forty years. Additions and betterments of \$2,000 or more are capitalized, while maintenance and repairs that do not improve or extend the useful lives of the respective assets are expensed.

The Society's land and buildings are in a historical district and its original building is classified as a historical structure. The original property is a historical treasure that is worth preserving perpetually. The Society has the capacity to protect and preserve essentially the service potential of the land and building and is doing so.

Derivatives - Derivative instruments consist of one interest rate swap agreement which is measured at fair value and recorded in accordance with U.S. generally accepted accounting principles.

Debt Issuance Costs - In accordance with FASB Codification Topic 835, *Interest*, the Society presents unamortized debt issuance costs as a reduction of the carrying amount of the debt. Debt issuance costs are being amortized using straight-line method over the term of the related financing agreements.

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 1 - Summary of Significant Accounting Policies (Continued)**

Revenue Recognition - The Society has multiple revenue streams that are accounted for as reciprocal exchange transactions including publications, meetings and exhibits, membership and communication, and other educational assistance. Revenues are recognized when control of these services is transferred to its customers, in an amount that reflects the consideration the Society expects to be entitled to in exchange for those products and services.

Because the Society's performance obligations relate to contracts with a duration of less than one year, the Society has elected to apply the optional exemption provided in FASB ASC 606-10-50-14(a), *Revenue from Contracts with Customers*, and, therefore, is not required to disclose the aggregate amount of the transaction price allocated to performance obligations that are unsatisfied or partially unsatisfied at the end of the reporting period. There are no incremental costs of obtaining a contract and no significant financing components. The following revenue are included in the accompanying financial statements.

Publications

Subscriptions - Subscription fees consist of amounts that individuals and corporations pay in exchange for annual subscriptions to the peer-reviewed scientific journals and scientific monographs that the Society publishes each year. All subscription terms are for the calendar year, and annual fees are fixed and paid in advance. For performance obligations related to subscription fees, control transfers to the customer over time. Revenue under subscription contracts is recognized using an output method based on time elapsed divided by the total contract term.

Page Charges - Page charges consist of amounts paid by individuals and corporations to have their content published within the peer-reviewed scientific journals and scientific monographs published by the Society each year. Page charge fees are fixed and based on the number of pages being published. For performance obligations related to page charges, control transfers to the customer at a point in time. The Society transfers control and records revenue upon publication of the related journal or monograph.

Book Sales - Book sales consist of amounts paid by individuals and corporations for the purchase of books sold by the Society and distributed through the Society's online bookstore as well as through a third-party distributor. For performance obligations related to book sales, control transfers to the customer at a point in time. The Society's principle terms of sale are FOB shipping point and the Society transfers control and records revenue for book sales upon shipment to the customer.

Meetings and Exhibits

Registration Fees - The Society hosts various scientific meetings and events every year. Each meeting or event is usually one to two days in duration. Registration fees consist of amounts paid by individuals to attend the events and related scientific presentations. Registration fees are fixed and are paid in advance through online registration, or they are paid on site at the event. For performance obligations related to meeting and event registration fees, control transfers to the customer at a point in time. The Society transfers control and records revenue upon the completion of each meeting or event.

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 1 - Summary of Significant Accounting Policies (Continued)****Revenue Recognition (Continued)****Meetings and Exhibits (Continued)**

Online Abstract Fees - Online abstract fees consist of amounts paid by individuals who are presenting at the meeting or event. Presenters must pay a fee to post an abstract of their presentation online and upload any necessary supplemental information. Abstract fees are fixed and are paid in advance. For performance obligations related to meeting and event online abstract fees, control transfers to the customer at a point in time. The Society transfers control and records revenue upon the completion of each meeting or event.

Sponsorship and Exhibitor Fees - Sponsorship fees consist of amounts paid by corporations for various levels of brand recognition at the event. Exhibitor fees represent amounts paid by corporations for floor space at the event to set up a company exhibit booth. Sponsorship and exhibitor fees are fixed and are paid in advance. For performance obligations related to meeting and event sponsorship and exhibitor fees, control transfers to the customer at a point in time. The Society transfers control and records revenue upon the completion of each meeting or event.

Membership and Communication

Membership Dues - Membership dues consist of amounts that individuals and corporations pay to gain access to member only academic libraries and publications, the AMS Community Platform, as well as various discounts on meeting and event registration fees and subscriptions to publications. All membership terms are for the calendar year, and annual fees are fixed and paid in advance. For performance obligations related to membership dues, control transfers to the customer over time. Revenue under membership contracts is recognized using an output method based on time elapsed divided by the total contract term.

Other Educational Assistance

Tuition Fees - Tuition fees consist of amounts paid by individuals to attend either a summer educational on-site workshop or a 13 week online based scientific course. Tuition fees are fixed and are paid in advance. For performance obligations related to educational programs, control transfers to the customer over time. Revenue under educational program contracts is recognized using an output method based on time elapsed divided by the total contract term.

License and Textbook Fees - License fees consist of amounts paid by institutions of higher education for a term license running the academic year, or August 15 to August 14, that grants the institution and its faculty access to a full course package, consisting of access to online portals and a course textbook. The course textbooks are also ordered separate from the term license, typically by the educational institution's bookstore. For performance obligations related to educational program license fees, control transfers to the customer over time. Revenue under license fee contracts is recognized using an output method based on time elapsed divided by the total contract term. For performance obligations related to textbook fees, control transfers to the customer at a point in time. The Society's principle terms of sale are FOB shipping point and the Society transfers control and records revenue for textbook fees upon shipment of the goods to the customer.

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 1 - Summary of Significant Accounting Policies (Continued)****Revenue Recognition (Continued)**

Amounts paid in advance represent contract liabilities and are recorded as deferred revenue. Contract assets represent revenue recognized in excess of the amount billed to the customer. Contract liabilities at December 31, 2020 amounted to \$4,724,432. There were no contract assets at December 31, 2020.

Revenue recognized based on performance obligations satisfied over time for the year ended December 31, 2020 amounted to approximately \$6,800,000. Revenue recognized based on performance obligations satisfied at a point in time for the year ended December 31, 2020 amounted to approximately \$8,700,000.

Contributed Services - Contributed services are recognized as contributions if the services create or enhance non-financial assets or require specialized skills, are performed by people with those skills, and would otherwise be purchased by the Society. Contributed services are recognized as revenue at the estimated fair value when the service is received. There were no contributed services received by the Society during the year ended December 31, 2020. In addition, many individuals volunteer their time and perform a variety of tasks that assist the Society with various programs and committee assignments, but these services do not meet the criteria for recognition as contributed services.

Functional Allocation of Expenses - The financial statements report certain categories of expenses that are attributed to more than one program or supporting function. Therefore, expenses require allocation on a reasonable basis that is consistently applied. The expenses that are allocated include occupancy costs, utilities, interest expense, computer expense, office expense, insurance, depreciation and amortization, and repairs and maintenance which are allocated based on the number of employees in the respective departments. Other expenses are allocated based on time and effort.

The following program and supporting services are included in the accompanying financial statements.

Publications

Includes the publication of the Society's primary journals (Journal of the Atmospheric Sciences, Journal of Applied Meteorology and Climatology, Monthly Weather Review, Journal of Physical Oceanography, Journal of Atmospheric and Oceanic Technology, Journal of Climate, Weather and Forecasting, Weather, Climate and Society, Journal of Hydrometeorology and Earth Interactions electronic journal).

Education and Policy Programs

Includes federal funding and Society support of nationally recognized programs using the study of the atmosphere and ocean to enhance or create an interest in pre-college students in science and engineering. Programs include, among others, AMS/NOAA Cooperative Program for Earth System Education, AMS Summer Policy Colloquium 2018-2021, AMS Climate Studies and Research Opportunities in Space and Earth Sciences. Policy programs work to strengthen the connection between public policy and Earth system science and services by building policy research and by creating opportunities for policymakers and scientists to engage and exchange perspectives to foster better-informed policy decisions. In addition, this includes the production and sale of books published by the Society, distribution throughout North America of WMO publications and sale of educational material for pre-college teachers.

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 1 - Summary of Significant Accounting Policies (Continued)****Functional Allocation of Expenses (Continued)****Meetings and Exhibits**

Includes presenting various meetings throughout the year including the annual meeting and the related exhibits. It also includes short courses offered at the various meetings.

Membership and Communication

Includes all primary member services, including, among others, the maintenance of the membership database, the certification programs, and the publication of the Bulletin.

Student Programs

Includes the granting and administration of the many undergraduate scholarships and graduate fellowships offered by the Society, and support for other student programs, such as student travel grants to scientific conferences and the annual AMS Student Conference.

Administrative and General

Includes the functions necessary to maintain a portion of an equitable employment program; ensure an adequate working environment; provide coordination and articulation of the Society's program strategy through the Office of the Executive Director; secure proper administrative functioning of the Council; maintain competent legal services for the program administration of the Society; and manage the financial and budgetary responsibilities of the Society.

Development

Includes conducting special fundraising events; and other activities involved with soliciting contributions from corporations, foundations, individuals, and others.

Advertising - The Society uses advertising to promote its programs, bulletins, journals, books, and education materials among the audiences it serves. The production costs of advertising are expensed as incurred.

Income Tax Status - The Society is exempt from federal income tax under Section 501(c)(3) of the Internal Revenue Code. However, income from certain activities not directly related to the Society's tax-exempt purpose is subject to taxation as unrelated business income. The Society had no material unrelated business income for the year ended December 31, 2020.

In determining the recognition of uncertain tax positions, the Society applies a more-likely-than-not recognition threshold and determines the measurement of uncertain tax positions considering the amounts and probabilities of the outcomes that could be realized upon ultimate settlement with taxing authorities. As of December 31, 2020, the Society has no uncertain tax positions that qualify for either recognition or disclosure in the financial statements. The Society is not currently under examination by any taxing jurisdiction. The Society's federal and state tax returns are generally open for examination for three years following the date filed.

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 1 - Summary of Significant Accounting Policies (Continued)**

Concentration of Credit Risk - The Society places its cash in institutions which are insured by the Federal Deposit Insurance Corporation (FDIC). At times during the year, the bank balances may be in excess of the FDIC insurance limit of \$250,000 per institution. At December 31, 2020, the Society's bank balances exceeded the FDIC limit by approximately \$3,280,000. The Society also holds various investment funds in a combination of long-term cash and cash equivalents, fixed income, equity securities, and common stocks. At December 31, 2020, the Society had \$8,946,855 in brokerage accounts, which were not insured and subject to various risks, such as interest rate, market and credit risks.

Subsequent Events - The date to which events occurring after December 31, 2020 have been evaluated for possible adjustment to the financial statements or disclosure is the date of the Independent Auditor's Report which is the date the financial statements were available to be issued.

Recently Issued Accounting Pronouncement Not Yet Adopted - FASB issued ASU 2016-02, *Leases*. The standard requires all leases with lease terms over 12 months to be capitalized as a right-of-use asset and lease liability on the balance sheet at the date of lease commencement. Leases will be classified as either finance or operating. This distinction will be relevant for the pattern of expense recognition in the income statement. This standard will be effective for the calendar year ending December 31, 2022. The Society is currently in the process of evaluating the impact of adoption of this ASU on the financial statements.

Note 2 - Availability and Liquidity

The Society strives to maintain liquid financial assets sufficient to cover 90 days of general expenditures. Financial assets in excess of daily cash requirements are invested in certificates of deposit, money market funds and other short-term investments. The Society also has a \$500,000 line of credit to meet cash flow needs.

The Society receives contributions with donor restrictions to be used in accordance with the associated purpose restrictions. It also receives gifts to establish endowments that will exist in perpetuity; the income generated from such endowments is used to fund programs. The Society also receives support without donor restrictions.

The Society considers investment income without donor restrictions, appropriated earnings from donor-restricted endowments, contributions without donor restrictions and contributions with donor restrictions for use in current programs which are ongoing, major, and central to its annual operations to be available to meet cash needs for general expenditures. General expenditures include administrative and general expenses and development expenses expected to be paid in the subsequent year. Annual operations are defined as activities occurring during the Society's fiscal year.

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 2 - Availability and Liquidity (Continued)**

The Society manages its cash available to meet general expenditures following three guiding principles:

- Operating within a prudent range of financial soundness and stability,
- Maintaining adequate liquid assets, and
- Maintaining sufficient reserves to provide reasonable assurance that long term grant commitments and obligations under endowments with donor restrictions that support mission fulfillment will continue to be met, ensuring the sustainability of the Society.

The table below presents financial assets available for general expenditures within one year at December 31, 2020:

Financial assets at year-end:

Cash and cash equivalents	\$	3,632,711
Accounts receivable		811,216
Pledges receivable		219,335
Investments		<u>8,946,855</u>

Total financial assets		<u>13,610,117</u>
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Less amounts not available to be used within one year:

Collateral under security lending agreements	500,000
Net assets with donor restrictions	5,239,989

Less estimated net assets with purpose or time restrictions to be met in less than one year and estimated appropriation of cumulative gains.	<u>(160,000)</u>
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Financial assets not available to be used within one year	<u>5,579,989</u>
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Financial assets available to meet general expenditures

within one year	\$ <u><u>8,030,128</u></u>
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AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 3 - Pledges Receivable**

At December 31, 2020, pledges receivable consist of the following:

Pledges expected to be collected in:

Less than one year	\$	107,577
One to five years		129,651
		<u>237,228</u>
Less present value discount		<u>17,893</u>
Pledges receivable, net	\$	<u><u>219,335</u></u>

Note 4 - Investments

The cost and fair value of investments at December 31, 2020 were as follows:

	<u>Cost</u>	<u>Fair Value</u>
Mutual funds/ETF	\$ 4,155,677	\$ 5,686,391
Cash and cash equivalents	213,992	213,992
Fixed income	966,660	1,024,688
Common stock	<u>1,315,870</u>	<u>2,021,784</u>
	\$ <u><u>6,652,199</u></u>	\$ <u><u>8,946,855</u></u>

Investment income for the year ended December 31, 2020 consists of the following:

	<u>Without Donor Restrictions</u>	<u>With Donor Restrictions</u>
Investment income	\$ 48,190	\$ 87,962
Realized and unrealized gains, net	<u>405,046</u>	<u>612,267</u>
Total	\$ <u><u>453,236</u></u>	\$ <u><u>700,229</u></u>

Note 5 - Fair Value

Fair value is defined under U.S. GAAP as the price that would be received to sell an asset, or paid to transfer a liability, in orderly transactions between market participants. Further, the Society is required to maximize the use of observable market inputs, minimize the use of unobservable market inputs, and disclose in the form of an outlined hierarchy the details of such fair value measurements. The hierarchy of valuation techniques is based on whether inputs to a fair value measurement are observable or unobservable in a marketplace. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the Society's market assumptions.

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 5 - Fair Value (Continued)**

This hierarchy requires the use of observable market data when available. These inputs have created the following fair value hierarchy:

Level 1 - Quoted prices in active markets that are unadjusted and accessible at the measurement date for identical unrestricted assets or liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.

Level 2 - Quoted prices for identical assets and liabilities in markets that are not active, quoted prices for similar assets and liabilities in active markets or financial instruments for which significant inputs are observable, either directly or indirectly.

Level 3 - Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable. The fair value hierarchy gives the lowest priority to Level 3 inputs.

The asset's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs. The guidance requires the use of observable data if such data is available without undue cost and effort.

Following is a description of the Society's valuation methodologies for assets measured at fair value.

Cash and Cash Equivalents - These investments are valued at the daily closing price as reported by the investment broker. Investments in long-term cash and cash equivalents are classified as Level 1 of the valuation hierarchy.

Common Stocks - These investments are valued at the closing price reported on the active market on which the individual securities are traded. Investments in common stock are classified as Level 1 of the valuation hierarchy.

Mutual Funds/ETFs - These investments are public investment vehicles valued using the Net Asset Value ("NAV") provided by the administrator of the fund and calculated at the close of business on the NYSE. The NAV is based on the value of the underlying assets owned by the fund, minus its liabilities, and then divided by the number of shares outstanding. Investments in mutual funds are classified within Level 1 of the valuation hierarchy.

Fixed Income - These investments are valued at the closing price of the active market in which the individual securities are traded. Investments in fixed income securities are classified as Level 1 of the valuation hierarchy.

Although the Society believes its valuation methodologies are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 5 - Fair Value (Continued)**

The following table summarizes by level, within the fair value hierarchy, the Society's financial assets and liabilities measured at fair value on a recurring basis in accordance with U.S. GAAP as of December 31, 2020:

Assets at Fair Value**Level 1**

Cash and cash equivalents	\$	213,992
Common stocks:		
Health care		478,234
Financial services		463,964
Technology		410,664
Industrials		198,924
Consumer defensive		163,152
Consumer cyclical		145,054
Energy		74,583
Basic materials		40,459
Other		46,750
Mutual Funds/ ETFs:		
Large blend		1,068,732
International large blend		604,353
Small blend		709,006
Real estate		394,952
Large growth		514,750
International large growth		506,532
Mid-cap blend		378,138
Diversified emerging markets		370,969
Intermediate-term bond		182,474
Market neutral		237,311
Inflation protected bond		180,430
Short-term bond		159,518
Pacific/Asia ex-Japan Stk		128,577
Options based		97,110
Nontraditional bond		66,154
Large value		57,222
Mid-cap growth		28,807
Fixed income:		
Intermediate-term bond		467,037
Inflation protected bond		52,122
Short-term bond		192,114
Other		314,771
	\$	<u>8,946,855</u>

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 5 - Fair Value (Continued)****Liabilities at Fair Value****Level 2**

Interest rate swap	\$ <u>118,848</u>
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Note 6 - Property and Equipment

Property and equipment consist of the following at December 31, 2020:

Buildings and improvements	\$ 8,962,096
Land and land improvements	3,864,120
Software	1,749,192
Office equipment and furniture	<u>937,282</u>
	15,512,690
Less: accumulated depreciation	<u>5,993,090</u>
Property and equipment, net	\$ <u>9,519,600</u>

Note 7 - Note Payable, Bank

The Society has a revolving line of credit agreement with a bank in the amount of \$500,000. Interest is charged at a rate of LIBOR plus 2.25%. The line of credit is secured and cross collateralized with the tax-exempt bond financing and by a first security interest in all assets of the Society, inclusive of a cash collateral account of \$500,000. The line of credit agreement contains financial and other covenants including a maximum leverage provision. During October 2020, the Society entered into an extension agreement to extend the termination date to October 31, 2021. This extension agreement also waived the Fixed Charge Coverage financial covenant ratio for the year ended December 31, 2020. At December 31, 2020, there was no outstanding balance on the revolving line of credit. Interest expense for the year ended December 31, 2020 amounted to approximately \$5,000.

Note 8 - Long-Term Debt

The Society entered into a loan agreement with the Massachusetts Development Finance Agency, (the "Issuer"), a public instrumentality of the Commonwealth of Massachusetts in 2010. The note was issued with bonds, by and among the Issuer, the Society, Webster Massachusetts Security Corporation, (the "Bondholder"), and Webster Bank National Association (the "Bank"). The note is payable in monthly installments of \$15,278 plus interest through November 2040. The interest rate on the note is set by the Bank and will be reset from time to time. At December 31, 2020, the interest rate was 2.38750%. Interest expense for the year ended December 31, 2020 totaled \$113,287. The bond is secured by the land and building located at 44 Beacon Street, Boston, Massachusetts with a net book value of \$6,603,346 at December 31, 2020. The note is subject to the same covenants, security, and cross collateralization as the line of credit. (Reference is made to Note 7.)

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 8 - Long-Term Debt (Continued)**

Maturities of long-term debt at December 31, 2020 consist of the following:

<u>Years</u>		<u>Amount</u>
2021	\$	183,333
2022		183,333
2023		183,333
2024		183,333
2025		183,333
Thereafter		2,734,723
		<u>3,651,388</u>
Less: unamortized debt issuance costs		<u>16,608</u>
Long term debt, net	\$	<u><u>3,634,780</u></u>

Note 9 - Interest Rate Swap Agreement

The Society has an interest rate swap to mitigate the risk of changes in interest rates associated with its variable interest rate indebtedness. At December 31, 2020, the aggregate notional amount totaled \$3,651,388. The Society's agreement effectively changes the interest rate exposure on its bond payable to a fixed rate of 1.03%. During May 2020, the Society amended its interest rate swap agreement with the bank to extend the termination date of the agreement to November 2030. U.S. GAAP requires the Society to recognize a gain or loss on the change in the fair market value of the swap agreement. The Society recognized a loss of \$83,972 on the change in the fair value of the swap agreement during the year ended December 31, 2020.

Note 10 - Note Payable, PPP Loan

During April 2020, the Society was granted a loan from Bank of America in the amount of \$1,409,142, pursuant to the Paycheck Protection Program ("PPP") as provided for in the Federal CARES Act. The CARES Act allows for the loan to be forgiven if certain conditions are met.

The loan matures on April 24, 2022 and bears interest at a rate of 1.00% per annum, payable monthly commencing on August 24, 2021, unless forgiven. The note may be prepaid by the Society at any time prior to maturity with no prepayment penalties. To qualify for forgiveness, funds from the loan may only be used for payroll costs, employee benefits, rent and utilities, and certain wage and employment levels need to be maintained. The Society utilized the entire loan amount for qualifying expenses.

The PPP note is unsecured and guaranteed by the SBA. Subsequent to December 31, 2020, the Society applied for and was granted forgiveness on the loan in the amount of \$1,409,142. According to management this is the amount of eligible expense payments incurred by the Society during the twenty-four-week period beginning upon receipt of PPP term note funds, calculated in accordance with the terms of the CARES Act. The Society will recognize a gain on extinguishment of debt in the amount of \$1,409,142 during year ending December 31, 2021.

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 11 - Split Interest Agreements**

The Society administers various charitable gift annuities. A charitable gift annuity provides for the payment of distributions to the grantor or other designated beneficiaries over the trust term (usually the designated beneficiary's lifetime). The portion of the gift annuity attributable to the present value of the future benefits to be received by the Society is recorded in the Statement of Activities as a contribution with donor restrictions in the period the gift annuity is established. Assets held in the various charitable gift annuities totaled approximately \$318,000 at December 31, 2020 and are recorded at fair value in the Society's Statement of Financial Position.

On an annual basis, the Society revalues the liability to make distributions to the designated beneficiaries based on actuarial assumptions. The present value of the estimated future payments totals approximately \$189,000 at December 31, 2020 and is calculated using discount rates ranging between 4.7% and 7.2% and applicable mortality tables.

Note 12 - Compensated Absences

It is the Society's policy to reasonably estimate each year the amount of accrued vacation compensation that it anticipates paying in the future. As of December 31, 2020, the Society has an accrued liability of approximately \$660,000 related to this policy, which is included in accounts payable and accrued expenses in the Statement of Financial Position.

Note 13 - Retirement Plan

The Society has a contributory retirement plan covering substantially all full-time employees. This is a tax deferred annuity plan under Section 403(b) of the U.S. Internal Revenue Code. The plan allows eligible employees to contribute up to 100% of eligible compensation through a salary reduction agreement, up to the maximum permitted by the Internal Revenue Code.

The Society contributes 10% of eligible compensation for participating employees who contribute at least 5% of eligible compensation. The Society's contribution to the plan amounted to approximately \$541,000 for the year ended December 31, 2020. Plan administrative expenses amounted to approximately \$5,000 for the year ended December 31, 2020.

While the Society expects to continue the plan indefinitely, the Society has reserved the right to modify, amend or terminate the plan. In the event of termination, the entire amount contributed under the plan must be applied to the payment of benefits to the participants or their beneficiaries.

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 14 - Commitments**

The Society leases office space and equipment under various operating leases through March 2027. Under the terms of the office space lease, the Society is obligated to pay escalation rental for certain operating expenses and real estate taxes. Escalating rents are recognized on a straight-line basis over the term of the lease in accordance with U.S. GAAP. The difference between rent expense and payments made under the lease are reflected as deferred rent. Rental expense, including related operating expenses and taxes, amounted to approximately \$380,000 for the year ended December 31, 2020.

The following is a schedule of the approximate future minimum rentals under the leases at December 31, 2020:

<u>Years</u>	<u>Amount</u>
2021	340,000
2022	350,000
2023	350,000
2024	360,000
2025	370,000
Thereafter	480,000
	<hr/>
	\$ 2,250,000
	<hr/>

Note 15 - Endowment Funds

The Society's endowment consists of various individual funds established for a variety of purposes. Its endowment includes only donor-restricted endowment funds. As required by generally accepted accounting principles, net assets associated with endowment funds including funds designated by the Executive Committee to function as endowments, are classified and reported based on the existence or absence of donor-imposed restrictions. When the donor's interest is not expressed in relation to the endowment fund, it is the policy of the Society to record the income, interest, and dividends and accumulated appreciation/depreciation in each endowment fund and appropriate expenditures from each fund in a prudent manner for the uses, benefits, purpose, and duration for which the endowment fund was established. As a result, the income earned each year for each endowment fund is reflected as income with donor restrictions until appropriated for use.

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 15 - Endowment Funds (Continued)**

The Society is subject to the Massachusetts Uniform Prudent Management of Institutional Funds Act (UPMIFA) and, thus, classifies amounts in its donor-restricted endowment funds as net assets with donor restrictions as though net assets are time restricted until the Executive Committee appropriates such amounts for expenditure. Most of these net assets are also subject to purpose restrictions that must be met before reclassifying those net assets to assets without donor restrictions. The Executive Committee of the Society has interpreted UPMIFA as requiring the maintenance of purchasing power of the original gift amount contributed to an endowment fund. As a result of this interpretation, when reviewing its donor-restricted endowment funds, the Society considers a fund to be underwater if the fair value of the fund is less than the sum of (a) the original value of the initial and subsequent gift amounts donated to the fund and (b) any accumulations to the fund that are required to be maintained in perpetuity in accordance with the direction of the applicable donor gift instrument. The Society has interpreted UPMIFA to permit spending from underwater funds in accordance with the prudent measures required under the law. Additionally, in accordance with UPMIFA, the Society considers the following factors in making a determination to appropriate or accumulate donor-restricted endowment funds:

- 1) The duration and preservation of the various funds.
- 2) The purposes of the Society and the donor-restricted endowment funds.
- 3) General economic conditions.
- 4) The possible effect of inflation and deflation.
- 5) The expected total return from income and the appreciation of investments.
- 6) Other resources of the Society.
- 7) The investment policies of the Society.

Investments and Spending Policies - The Society has adopted investment and spending policies approved by the Executive Committee for endowment assets that attempt to provide a predictable stream of funding to programs supported by its endowment funds while also maintaining the purchasing power of those endowment assets. Endowment assets include those assets of donor-restricted funds that the Society must hold in perpetuity. Under this policy, as approved by the Executive Committee, the endowment assets are invested in a manner that is intended to contribute to the Society's total return objectives and preserve principal while maintaining a competitive yield as market conditions dictate.

Investments and Spending Policies (Continued) - To satisfy its long-term rate-of-return objectives, the Society relies on a total return strategy in which investment returns are achieved through both capital appreciation (realized and unrealized) and current yield (interest and dividends). The Society targets a diversified conservative asset allocation including equity and marketable debt securities to achieve its long-term return objectives within prudent risk constraints.

The Society's policy of appropriating for distributions of its endowment fund for scholarships, fellowships and other distribution of funds is determined based on the donor's intentions and investment returns as well as taking into consideration the long-term expected return on its endowment, the nature and duration of the individual endowment funds, and the possible effects of inflation. Accordingly, over the long-term, the Society expects the current spending policy to allow its endowment to grow at a normal inflationary rate on an annual basis. This is consistent with the Society's objective to maintain the purchasing power of the endowment assets held in perpetuity or for a specific term as well as to provide additional growth through new gifts and investment return.

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 15 - Endowment Funds (Continued)**

Underwater Endowment Funds - From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the level that the donor or MA UPMIFA requires the Society to retain as a fund of perpetual duration. In accordance with U.S. GAAP, deficiencies of this nature are reported in net assets with donor restrictions. There were no deficiencies of this nature at December 31, 2020.

The changes in endowment net assets for year ended December 31, 2020 are as follows:

	Without Donor Restrictions	With Donor Restrictions	Total
Endowment net assets, beginning of year	\$ -	\$ 1,799,517	\$ 1,799,517
Investment income	-	319,990	319,990
Contributions	-	93,011	93,011
Appropriation of cumulative gains	-	(58,696)	(58,696)
Endowment net assets, end of year	\$ -	\$ 2,153,822	\$ 2,153,822

Note 16 - Net Assets With Donor Restrictions

Net assets with donor restrictions are restricted for the following purposes at December 31, 2020:

Endowment Funds (including historical gift value of \$1,318,253)**Specific Purpose**

Scholarship awards	\$ 2,132,282
Student paper awards	21,540
	<u>2,153,822</u>

Other Donor Restricted Funds**Specific Purpose**

Scholarship awards	1,811,140
Hydrology research	248,014
Remote sensing awards	144,119
Lecture series awards	51,014
Student travel awards	180,929
Centennial initiatives	113,274
	<u>2,548,490</u>

Passage of Time

Charitable gift annuities	318,342
Pledges receivable	219,335
	<u>537,677</u>

\$ 5,239,989

AMERICAN METEOROLOGICAL SOCIETY**NOTES TO FINANCIAL STATEMENTS****YEAR ENDED DECEMBER 31, 2020****Note 16 - Net Assets (Continued)**

Net assets were released from donor restrictions by incurring expenses satisfying the restricted purposes or by the occurrence of the passage of time or other events specified by donors:

Purpose restrictions accomplished:

Scholarship awards	\$	65,576
Hydrology research		1,378
Remote sensing awards		5,802
Lecture series awards		662
Student travel awards		996
Centennial initiatives		200
		<u>74,614</u>

Time restrictions expired:

Charitable gift annuities		21,765
Other time restricted awards		9,557
		<u>31,322</u>

Release of appropriated amounts with purpose restrictions:

Scholarship awards		58,578
Student paper awards		118
		<u>58,696</u>
	\$	<u><u>164,632</u></u>

Note 17 - COVID-19

The COVID-19 outbreak has continued to cause business disruption worldwide. While the disruption is currently expected to be temporary, there is considerable uncertainty around the duration of the disruption. Management is uncertain if this matter will have a negative impact on the Society's operating results in the future. As a result, the potential related financial impact and duration cannot be reasonably estimated at this time.

TAB 4.1 Culture and Inclusion Cabinet

Council Report on the Culture and Inclusion Cabinet and Diversity, Equity, and Inclusion

Melissa Burt and Katy Putsavage

One of the AMS Core Values is: “We believe that a diverse, inclusive, and respectful community is essential for our science.”

To formalize these efforts and develop a clearer path for providing resources toward them, the Council stood up the Culture and Inclusion Cabinet (CIC) with Dr. Melissa Burt as its first chair (September 2020). Through an open application process, the AMS recruited 13 members to serve on the CIC. These members are representative of various sectors of the WWC enterprise, career stage, and subject matter expertise in DEI. In August 2021, AMS hired Dr. Katy Putsavage as the Director of Diversity, Equity & Inclusion (DEI).

AMS has retained Periscope Theory, for consulting services to guide the Culture and Inclusion Cabinet, the Director of DEI, and the AMS staff and members through a mission, vision, values, and goals development process. The CIC will hold a retreat on October 1, 2021, to further define the roles of the CIC, the Director of DEI, BRAID, (Board on Representation, Accessibility, Inclusion, and Diversity), and AMS staff and members in this work. The retreat represents a first step in further defining these roles, developing an initial work plan, and the resources needed to implement this work.

To date, the CIC has invested time in building trust, getting to know one another, and reaching out across the Society to understand the breadth of the Society’s work. Through the discussions among the CIC, it has become clear that no single entity can or should hold the sole responsibility for implementation. In order for this work to be successful, all AMS members and staff must actively integrate these principles into their work.

As recognized in its charter, the Culture and Inclusion Cabinet (CIC) has the following charge: To accelerate the integration of a culture of inclusion, belonging, diversity, equity, and accessibility across the AMS and evaluate and assess progress towards culture and inclusion strategic goals within the Society. Meaningful integration into all areas and components of the AMS will require sustained investments of resources and talent. Fully integrating diversity, equity, inclusion, belonging, justice, and accessibility will result in an organizational culture that advances the atmospheric and related sciences, technologies, applications, and services for the benefit of society and is responsive to social justice. We anticipate that the retreat will provide additional clarity as to how all entities within the AMS can amplify this work.

TAB 4.2

Next Future Commissioner for Professional Affairs

Maureen completes her term as Professional Affairs Commissioner this January, with Mike Augustyniak moving from Future Commissioner to Commissioner. That means we need to have the Council appoint a new Future Commissioner at this meeting so that this person can be prepared to step into that role this January.

Following standard practice, we have received input from the current commissioners, staff, and a few others on possible candidates for the next Future Commissioner. Then the Executive Committee narrowed that list down to a smaller number and I reached out to all of them to see if they would be willing to accept the position if appointed by the Council. As usual in these cases, now all said yes due to job responsibilities or other factors, but we do have a short list for Council consideration. It is (in alphabetical order):

Erica Grow, CBM, AccuWeather [<https://www.linkedin.com/in/ericagrow/>]

Pam Knox, CCM, Univ. Georgia [<https://geography.uga.edu/directory/people/pam-knox>]

Jared Rennie, CCM, NCICS/NOAA [<https://ncics.org/people/jared-rennie/>]

Each of these candidates has already done a lot of service with AMS and is well-qualified for the role of commissioner, and I'm sure most of you know them all, but I included a link to a bit more information just in case you find this helpful.

You will note that each has either the CBM or CCM credential, and that is considered a desirable attribute for the Commissioner of Professional Affairs given that this commission oversees those certification programs.

Action: Appoint the next Future Commissioner of Professional Affairs for a term beginning January 2022.

TAB 4.3 Publications

Tony's very brief report with supporting material is provided as Attachment A. As a reminder, chief editor appointments require Council approval based on the commissioner's recommendation.

Tony mentions the new Editor's Award in his report, and that is covered under the awards section of the agenda (TAB 8).

Actions:

- **Approve a two-year extension of Wade Crow's appointment as Chief Editor of the *Journal of Hydrometeorology*.**
- **Approve a two-year extension of Greg McFarquhar's appointment as Chief Editor of *Meteorological Monographs*.**
- **Appoint Darryn Waugh to an initial three-year term as Co-Chief Editor of the *Journal of Climate*.**
- **Approve a two-year extension of Pamela Heinselman's appointment as an at-large member of the Publications Commission.**
- **Approve a new Chief Editor for *Earth Interactions*.**

**Publications Commission Report
September 12, 2021**

The Publications Commission requests Council action on the following appointments:

Approve a two-year extension of Wade Crow's appointment as Chief Editor of the *Journal of Hydrometeorology*.

Approve a two-year extension of Greg McFarquhar's appointment as Chief Editor of *Meteorological Monographs*.

Appoint Darryn Waugh (Johns Hopkins University, CV provided) to an initial three-year term as Co-Chief Editor of the *Journal of Climate*.

Approve a two-year extension of Pamela Heinselman's appointment as an at-large member of the Publications Commission.

There will also be a vacancy in the position of Chief Editor of *Earth Interactions* as of January 1, 2022, as Rezaul Mahmood is stepping down at the end of this year, but a candidate to succeed him has not yet been identified.

The Commission also notes that the Awards Oversight Committee as has approved its request to create an additional Editor's Award for reviewers whose efforts are distributed across multiple AMS journals. Council approval of this new award is requested.

Curriculum Vitae, September 2021

Darryn W Waugh

Dept. of Earth and Planetary Sciences,
Johns Hopkins University
3400 N. Charles St., Baltimore, MD 21218
410-516-8344 waugh@jhu.edu

EDUCATION

<u>College/University</u>	<u>Major</u>	<u>Degree & Year</u>
University of Waikato, N.Z.	Mathematics	BSc, 1986
University of Waikato, N.Z.	Mathematics	MSc, 1988
University of Cambridge, U.K.	Applied Math.	PhD, 1992

PROFESSIONAL APPOINTMENTS

Jul. 04 to present - Johns Hopkins University; Professor.
Jan. 17 to present - University of New South Wales; Professor.
Jan. 07 to Jun. 12 - Johns Hopkins University; Chair of E&PS
Jan. 01 to Jun. 04 - Johns Hopkins University; Associate Professor.
Jan. 98 to Dec. 00 - Johns Hopkins University; Assistant Professor.
Jan. 95 to Dec. 97 - Monash University, Australia; Research Fellow
Jan 92 to Dec 94 - MIT, USA; post-doctoral fellow.

PRIZES AND AWARDS

- Stanley Jackson Award for Ndarana and Waugh paper (award by South African Society of Atmospheric Sciences), 2012
- AGU Editors Citation for Excellence in Refereeing (2006).
- NASA Group Achievement Award for SOLVE campaign (2001).
- AGU Editors Citation for Excellence in Refereeing (1999).
- NASA Group Achievement Award for POLARIS campaign (1998).
- AGU Editors Citation for Excellence in Refereeing (1995).
- NASA Group Achievement Award for ASHORE/MAESA campaign (1995).
- Francois N. Frenkiel award (for Phys. Fluids paper) (1993).
- J.T. Knight Prize (for student essay) (1990).
- U.K. Commonwealth Scholarship (1988).

PROFESSIONAL SERVICE

- AMS Middle Atmosphere committee (1999-2004, 2019-); Chair (2001-2004)
- AGU Atmospheric Dynamics committee (1999-)
- International Commission on the Middle Atmosphere (ICMA) committee (1999-)
- Lead author of chapter 2 of 1998 NASA "Scientific Assessment of the Atmospheric Effects of Stratospheric Aircraft"
- Co-author of chapter 7 of 1998 WMO/UNEP "Scientific Assessment of Ozone Depletion"

- Lead author of chapter 6 of 2006 WMO/UNEP “Scientific Assessment of Ozone Depletion”
- Co-author of chapter 4 of 2014 WMO/UNEP “Scientific Assessment of Ozone Depletion”
- Executive Committee SPARC CCMVal / CCMi (2003-2013)
- Editor, Journal of Climate (2016-)

STUDENT AND POSTDOCTORAL ADVISING

PhD Graduate Students:

- Ping-ping Rong (PhD 2003) now at Hampton University,
- Andrea Molod (PhD 2004) now at NASA GSFC,
- Beatriz Funasti (PhD 2006) now at LMD Paris
- Hong Zhang (PhD 2006), now at JPL,
- Ju-Mee Ryoo (PhD 2009), now at UC Berkely,
- Thando Ndarana (PhD 2010) now at South African Weather Service,
- Scott Guzewich (PhD 2013) now at NASA GSFC.
- Chang Lang (PhD 2013) now in private sector
- Jordan Thomas (PhD 2018) now in private sector
- Olga Tweedy (PhD 2018) now at NASA GSFC
- Anna Scott (PhD 2018) now in private sector
- Gaike Kerr (PhD 2020) now at George Washington University.
- Molly Menzel (current)
- Jacob Shultis (current)
- Josh Eston (current)
- Elle Hanson (current)

Undergraduates:

- Margaret Hurwitz (Senior Thesis, 2003)
- Kathleen Schiro (Senior Thesis 2011)
- Arlene Alpert (Senior Thesis 2012)
- Chloe Gao (Senior Thesis 2013)
- Kayla Ostrow (Senior Thesis 2021)

Postdoctoral fellows:

- Jun Ma (2000-2002) now research scientist at NRL
- Luke Oman (2006-2009) now research scientist at NASA GSFC.
- Chaim Garfinkel (2011-2013) now faculty at Hebrew University, Israel.
- Lei Wang (2011-2013) now research scientist at Columbia University.
- Rolando Olivas-Saunders (2013-2015)
- William Servior (2014-2018) now faculty at University of Exeter
- Huang Yang (2015-2019) now research scientist at UCLA
- Sally Zhang (2021-).

PUBLICATIONS

Google Scholar: https://scholar.google.com/citations?user=fDDIf_AAAAAJ&hl=en

ResearcherID: <http://www.researcherid.com/rid/K-3688-2016>

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RESEARCH GRANTS

Current

- NASA Transport from the Northern Hemisphere Midlatitude Surface 3/1/19-2/28/22, \$250K, Co-I
- NSF Hadley Cells and Subtropical Jets: Dynamics and Tracer Transport, 05/01/19-04/30/22, \$567K, PI
- NASA Atmospheric Transport in Polar Vortices on Mars and Titan, 10/01/2019-09/30/2022, \$ 361K, Co-I.

Past

- NASA, “Transport and mixing in the stratosphere and troposphere from chemical tracer measurements”, \$227,208, 4/1/98 to 3/30/01

- NASA, “Middleworld Transport Within Three-Dimensional Models: Characterization and Sensitivities to Model Formulation”, \$203,206, 4/1/98 to 3/30/01.
- NASA, “Dynamical coupling of the troposphere with the polar stratosphere”, \$119,376, 5/1/99 to 4/30/02.
- NSF, “Kinematics of the tropopause”, \$42,861, 9/01/99 - 8/31/02.
- NASA, “Atmospheric Transport: Comparison of Observations and Models”, \$105,752, 5/15/00 - 5/14/03.
- NSF “Tropical Upper Tropospheric Dynamics and Transport”, \$267,136, 4/01/01 - 3/31/04.
- NASA, “Inferring Stratospheric and Tropospheric Transport from chemical tracer measurements”, NASA, \$289,003, 9/01/01 - 8/31/04.
- NSF “Transport Timescales, Pathways, and Carbon Uptake in the North Atlantic Ocean”, \$542,283, 9/2003-8/2006. (PI: Tom Haine)
- NOAA “Anthropogenic Carbon in the Oceans Estimated Using Transit-Time Distributions.” 5/2004-3/2007.
- NSF The Dynamical Influence of the Stratosphere on the Troposphere”, \$273,000, 1/2005– 12/2007.
- NASA “Quantifying Stratospheric and Upper Tropospheric Transport and its Impact on Chemical Composition”, \$ 509,609, 3/2006-3/2008.
- NSF “Global estimates of Past and Future Uptake of Anthropogenic Carbon by the Oceans, \$290,00, 9/2006-8/2011.
- NASA Chemistry---Climate Studies using general circulation models, \$577,00, 7/2006-2011.
- NASA “Upper tropospheric trace gas variability and the role of transport processes”, \$361,000, 3/2010 to 2/2013 .
- NSF “Multi-model analysis of stratospheric chemistry-climate coupling”, \$364,00, 3/2009 to 02/2012
- NSF “Impact of Stratospheric Ozone on Antarctica and the Southern Ocean, \$399,000, 1/2011 to 12/2013.
- NSF, “IGERT Water, Climate and Health” (PI: G Brush, DoGEE), \$3,250K, 09/2011 to 08/2016
- NSF, “FESD: Open Earth” (PI: Peter Olson), \$2,832K, 09/2011 to 08/2016
- NSF, “FESD: The impact of the ozone hole on the SH climate, 09/2013 to 08/2018, \$1,249K Co-I,
- NIH “Health Effects of Extreme Heat among Vulnerable Populations with Asthma and COPD, 04/2013 – 03/2015 \$400K Co-I
- NASA Investigation of Mars Vortex Dynamics 04/2014 – 03/2017 \$420K PI
- NSF Collaborative Research: Timescales of Large-Scale Tropospheric Transport Inversions of trace-gas measurements and connections with dynamics, 07/2014 to 06/2017, \$525K, PI
- NASA Timescales of Large-Scale Tropospheric Transport: Inversions of aircraft trace-gas measurements, 10/2014 to 09/2017, \$232K, PI
- NASA Hemispheric differences in tropical lower stratospheric transport , 04/2017 to 05/2020, \$402K, PI

TAB 4.3.1
Publications Commissioner Appointment

Tony has been doing an outstanding job as Publications Commissioner. He completes his first three-year term this January and is eligible for a second three-year term. He has expressed his willingness to serve a second term if appointed by the Council, and the Executive Committee has enthusiastically endorsed having the Council do so.

Action: Reappoint Tony Broccoli for a second terms as Publications Commissioner ending January 2025.

TAB 4.3.2

Guidance for the Full Waiver Committee

By way of background, all AMS journals (other than WCAS) include charges to the authors' institution in order to publish. These author charges (formerly referred to as page charges) are applied to all accepted manuscripts, to help defray the cost of peer review and publication. In the case of fully open access journals, like *Earth Interactions* and the new *Artificial Intelligence in the Earth Systems*, they are the only funding AMS receives to support the publication.

Authors who do not have research funding that will fully cover the author charges can apply for waivers to those fees at the time of submission, and are asked to provide a justification for the waiver. Requests for partial waivers are handled by AMS staff: typically these waivers are quickly negotiated and the papers enter the peer-review process within five days. If an author requests a full waiver of all charges, the papers are held for review by a special Full Waiver Committee, made up of Council members, that meets every six to 8 weeks. The paper does not enter into the peer-review process until the Committee has made a decision on the waiver request, so authors have a good incentive to only ask for a full waiver if it is absolutely necessary.

The Committee deals with between five and ten full waiver requests each time they meet. It is usually able to grant many of the requests and still not deplete the \$100K that is set aside annually for full waivers — especially since some fraction of those papers will end up being rejected in the peer review process, freeing up the funding that had been set aside for them. Overall, the waiver approach (both partial and full) has worked well, and has allowed AMS to be responsive to authors who cannot cover author charges for a variety of reasons. In particular, it helps scientists from the developing world get their work into the high quality AMS journals, and it has enabled a number of early career and other researchers, “orphaned” between funded appointments, to publish their work with AMS.

The Full Waiver Committee has asked that the Council discuss some of the issues they face and provide some guidance for dealing with them at this meeting. I have briefly summarized their concerns below, but we will have Committee members at the meeting who may be able to expand on all this as part of the discussion.

The Committee is concerned with how to evaluate need from U.S. or wealthier institutions versus applications from lower income and developing countries. As it stands, we allow anyone to apply, with justification for the waiver request required. The committee is concerned that perhaps wealthier institutions may take advantage of the waiver program and are looking for guidance on how to handle these applications or perhaps a different system for evaluating hardship. Should less consideration be given to U.S. or wealthier institutions? Should they have their own separate set of criteria to evaluate hardship?

Action: Guidance for the Full Waiver Committee.

TAB 4.4
Weather, Water, and Climate Enterprise Commission

Doug's brief report is provided as Attachment A. There are no action items at this time.

Commission on the Weather, Water, and Climate Enterprise (CWWCE)

September Report

13 September 2021

Douglas C. Hilderbrand, Commissioner
Pamela G. Emch, Past Commissioner
Sue Ellen Haupt, Future Commissioner

Decisions Requiring AMS Council Vote:

No formal vote required as of September 13, 2021.

Commission Highlights since July, 2021:

- The Ad Hoc Committee on Engineering Resilient Communities has written a draft AMS Statement on the 2021 Southern Plains Arctic Outbreak. This statement highlights best practices for both local governments and individuals to minimize similar future events. The CWWCE Commissioner expects to forward the draft statement to AMS Council in late September/early October for review/clearance.
- The Board on Enterprise Communication hosted the [2021 Summer Community Meeting](#) virtually on September 21-23. The CWWCE Commissioner will provide the AMS Council notable highlights of the meeting.
- Several boards/committees have been busy organizing AMS Annual Conference sessions and symposia. Specifically,
 - Committee on Environmental Security is contributing to the overall Annual Conference planning and the Food Security Subcommittee.
 - Board on Enterprise Strategic Topics (BEST) is leading the program development of the 10th Symposium on the Weather, Water, and Climate Enterprise.
 - The Energy and Renewable Energy Committees are leading the program development of the 13th Conference on Weather, Climate, and the New Energy Economy.
 - Board on Enterprise Decision Support Services (BEDS) is working with the BEST in organizing a session titled, *“Leading the way in equity to advance the Weather, Water, and Climate Enterprise”*
 - 10WRN session on the February 2021 Southern Plains Arctic Outbreak
 - 10WRN session on the summer 2021 Excessive Heat event in the Pacific NW and Southwest Canada.

- BEDS is working on a Special Collection on Environmental Security. BEDS Chair, Stephanie Herring, submitted a proposal to AMS publications last winter for a special collection entitled “The Roles of the Weather, Water, and Climate Enterprise in Environmental Security”. The proposal is targeting Weather, Climate and Society and Earth Interactions journals. Stephanie just sent a revised proposal to them earlier this month after addressing several concerns from editors and reviewers. Target for the collection is Fall/Winter timeframe.
- The Committee on Ecological Forecasting and the BEDS Chair are submitting an abstract to an ecological forecasting symposium taking place within the American Fisheries Society annual meeting, scheduled for November in Baltimore. Title is “Connecting the Arrows between Ecological System Prediction and Environmental Security.”
- The Committee on Radio Frequency Allocations continues its proactive outreach, with the Committee Chair testifying in a House Science, Space, and Technology full committee hearing in July. The committee continues to work on an AMS policy statement (timeline: TBD).

TAB 4.4.1

Next Future WWCE Commissioner

Doug completes his term as WWCE Commissioner this January, with Sue Haupt moving from Future Commissioner to Commissioner. That means we need to have the Council appoint a new Future Commissioner at this meeting so that this person can be prepared to step into that role this January.

As we did for the Professional Affairs Commission, we followed standard practice, and have an Executive Committee recommended short list for Council consideration of individuals who have agreed to serve if appointed. They are (in alphabetical order):

Steve Bennet, Demex Group [<https://www.linkedin.com/in/stephendbennett/>]

Heidi Centola, IBM Weather Business Solutions

[<https://www.ametsoc.org/index.cfm/ams/about-ams/ams-election-information/2021-ams-elections/council-candidates/private-sector-council-candidates/heidi-m-centola/>]

Neil Jacobs, former NOAA Administrator

[<https://2017-2021.commerce.gov/about/leadership/dr-neil-jacobs.html>]

Each of these candidates has already done a lot of service with AMS and is well-qualified for the role of commissioner, and I'm sure most of you know them all, but I included a link to a bit more information just in case you find this helpful.

You will note that Heidi Centola is currently on the ballot for AMS Council. If she were the Council's first choice for the next Future Commissioner, you would need to also select a first alternate because if Heidi were to be elected the Council she should not also serve in the Commissioner role.

Action: Appoint the next Future Commissioner of Weather, Water, and Climate Enterprise Commission for a term beginning January 2022.

TAB 4.5

Planning Commission

The Planning Commission offers action items for Council based on Recommendation 5 of the Task Force on Leadership Development report (Attachment A).

- 1) **Create 3-5 Early Career Ambassador positions, each designated with a one-year term with appointments that rotate across different Boards and Commissions.**
These ambassadors would be drawn from incoming ECLA participants and ECLA graduates, as recommended by the ECLA Planning Committee chairs. They would participate in a session or panel within the Board on Early Career Professional Symposium.
- 2) **Provide \$1000 funding to Early Career Ambassadors to offset their attendance at the AMS Annual Meeting.**
- 3) **Allow each ECLA graduate a waived conference registration fee at the AMS Annual Meeting that proceeds their ECLA class to enable their participation, further promote their involvement, and provide networking opportunities.**
- 4) **Require each Board/Committee and Commission to include 1-2 early career professionals in their groups, with special emphasis on those from historically underrepresented populations and with attention to less-represented sectors.**
(Requires changes to the AMS Organizational Procedures and subsequent Council approval.)

AMS Task Force on Leadership Development

Findings and Recommendations

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Recommendation 1: Increase visibility of leadership and volunteer opportunities through creating an “Opportunity Board”	5
Recommendation 2: The “Meet the President” event should be expanded to “Meet the Leadership”	6
Recommendation 3: Add a separate category to ballot for an early career Council member	7
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Executive Summary

The Task Force on Leadership Development was convened in late 2019 and charged with outlining the current state of leadership development in the American Meteorological Society (AMS) and identifying potential ways to improve the Society's leadership development. Task Force members met for the first time at the Centennial Annual Meeting in Boston and started developing plans for how to meet the charge.

Unfortunately, as the Task Force was taking off, the world was shutting down as COVID-19 started spreading. Plans for more face-to-face discussions with current leaders in the Weather, Water, and Climate Enterprise (WWCE) were scrapped, and the Task Force developed a set of questions for virtual interviews with early-, mid-, and late-career leaders.

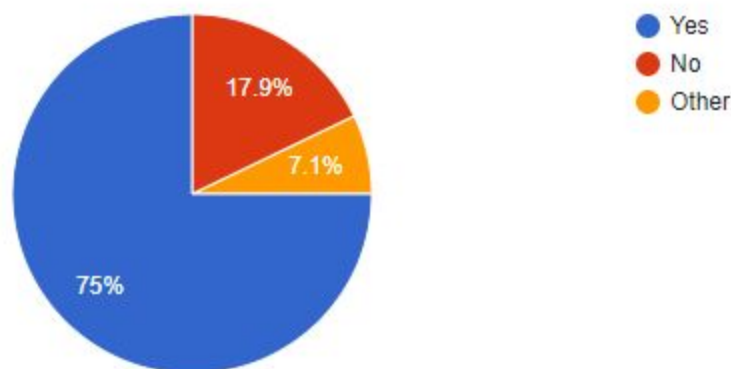
While the Task Force found that there are a number of leadership training opportunities in the WWCE that our interviewees have taken part in, there are a number of challenges in developing leaders. The following report summarizes key findings from our interviews and lists several recommendations for AMS Council to consider for potential implementation.

Key Findings

Leadership development and training in the WWCE is available to those who want it. Twenty-one of our interview subjects stated they had received formal leadership training at some point throughout their career.

8. Have you ever had any formal leadership training?

28 responses



Among leadership trainings included the AMS Early Career Leadership Academy, AMS Summer Policy Colloquium, numerous leadership trainings from government agencies, and programs developed by private sector companies. These training sessions provide a foundation for leadership within our field and could be leveraged by the Society if leadership opportunities are found and the potential leaders can be engaged.

During our interviews, it became apparent that members, especially early-career professionals and students, either don't realize that opportunities are available or don't feel in a position to seek out these opportunities. As one respondent said, "Most young people do not realize there are opportunities or are not in the position to knock on doors."

This can be a concern for engaging with and developing the Society's future leaders. A common theme among those in leadership positions was that they started with small engagements in their organizations. These might be as small as chairing sessions at the Annual Meeting. Often a step change into a large or senior leadership role occurred without any intermediate leadership roles that would enhance development as well as institutional memory. Those people who take that step are both the most natural leaders and those who most believe that service is an essential part of their community and profession. This in itself is not a negative outcome, but it does marginalize other potential leaders who may have meaningful contributions to the AMS.

Despite many initial leadership opportunities coming from smaller roles like chairing sessions at the Annual Meeting, a belief exists that there may not be enough of these smaller opportunities available. A recent request from the Board for Early Career Professionals for applications for board members resulted in a huge response for a very limited number of positions. There is a desire to get more involved in the Society, but as was mentioned in the interviews, “there probably are not enough vacancies.” And while some vacancies may have a lot of visibility (the announcement of the BECP opportunity a notable example) it has been pointed out that clearer guidance on effective volunteering may be required.

Even those in senior leadership positions noted that in some cases they didn’t see the opportunity coming. In other cases, those leadership opportunities became clear only after extensive periods of smaller engagements, which may for example be many years of chairing sessions and talking with peers.

Engaging and activating potential leaders in the Society will require creating a culture of cultivating leadership. Beyond potentially expanding leadership opportunities, making them more visible, and improving guidance on volunteering, our interviews revealed a concern with the culture of AMS. It was noted there are several standing stigmas in the Society, including diversity, level of education, career level, and your professional sector. Though there are boards and committees that support a significant percentage of our Society, leadership should continue to ensure that all members feel equally represented.

Based on the themes that emerged in the surveys, and our interpretation of them, the Task Force puts forth the following recommendations.

Recommendation 1: Increase visibility of leadership and volunteer opportunities through creating an “Opportunity Board”

To improve the visibility of opportunities with boards and committees, the Task Force recommends the creation of a Leadership and Volunteer Opportunity Board, similar to a job board, available to AMS membership. Encouraging commissions, boards, and committees to post their available opportunities and give guidance on how to become involved will help engage the membership interested in serving. During our interviews, those who wished to serve stated that at times they were unable to find the right opportunity and did not always feel comfortable in reaching out to board members about getting involved. An Opportunity Board is an easily implemented tool to help AMS identify new volunteers and leaders.

Recommendation 2: The “Meet the President” event should be expanded to “Meet the Leadership”

The “Meet the President” session for Early Career and Student members at the Annual Meeting is an important opportunity for the future leaders of our Society to be introduced to the current AMS leadership. This session can and should be expanded upon, though. In its current form, the session is an informal thirty minute breakout, with Early Career and Student members far outnumbering the President. This limits the amount of interaction available and conversations are frequently only among groups of Early Career and Student members, without having an opportunity to speak with the President. This Task Force therefore recommends to Council:

- 1) Expand the “Meet the President” event to “Meet the Leadership”** A common thread from our interviews was a desire to get into leadership positions without knowing how to get there. In expanding the “Meet the President” session to include members of AMS Council, Commissioners, and Board Chairs, we increase the number of AMS leaders available for conversations with Early Career and Student members. This expansion gives Early Career and Student members greater opportunity to speak with leaders from all sectors of the Weather, Water, and Climate enterprise, and gives the current leadership the opportunity to identify and engage with potential future leaders.

Recommendation 3: Add a separate category to ballot for an early career Council member

While this can be done on any board/committee or other group within AMS, it is especially important to consider this with the Council ballot. Early career members may appear on the ballot, but when competing in a category with more experienced mid- to late- career members, there is no guarantee that early career members will get a seat on Council. When asked why it is important to take on leadership roles, a respondent said, *“it’s hard for younger people since they have the struggle of tenure.”*

A way to remedy this would be to create a separate sector on the ballot that is dedicated to early career members. A slate of three early career candidates running against each other would ensure that one spot on Council includes representation of the early career sector of membership, regardless of what sector they are associated with.

Why early career? As one respondent said, *“They will work hard at it. They have all of the energy, drive, new ideas. Always look to the next generation. This is up to the current people in charge to do this, take this action. Most young people do not realize there are opportunities or are not in the position to knock on doors. It’s a tremendous honor to be asked by the senior scientists to serve in these positions for the young people. Young people are hungry to develop their careers. There need to be opportunities to incorporate more women and minorities in the system. They will serve as role models for the next generation, which will continue to move us toward an inclusive society.”*

Another respondent said, *“volunteering in the AMS was an absolutely invaluable part of my career and leadership growth.”* What better way to make an early career member feel this way than by being granted an opportunity to be featured on the ballot and/or offered a position on Council?

Other quotes that support this recommendation:

- *“Please continue to promote leadership roles in the organization, especially for under-represented groups”*
- *“Just get involved. EC scientists have a lot to add. New ideas that can change the discussion in a positive way”*
- *“Make sure people feel valued and have made a difference by participating and providing input to a process.”*

Recommendation 4: A standard duty of AMS Boards and Committee members should be to find replacement nominees upon departure

Nearly all positions on AMS Boards and Committees are intended to be term-limited, and thus must be filled after some number of (usually) years. Within a particular Board or Committee, most positions are staggered with the aim of striking the right balance between continuity and fresh ideas. Currently, a departing member has no obligation to nominate candidates to fill the resulting vacancy. When the remaining members are responsible for filling that vacancy, a natural tendency is to nominate people they know, and the strongest personalities will drive the process, leading to undesirable homogenization. While a uniform policy that dictates member selection is probably overkill, uniformity in how departing members contribute would serve to increase the potential number of volunteer candidates.

Nominations from a departing member can help guard against those tendencies, by ensuring that member contributes to the process regardless of their ability to control the conversation. Though there is no obligation for the Board or Committee to accept that nomination, it opens the door to more diversity in thought. Depending on the composition of the group at that time, the departing member might also be encouraged to seek early career nominees or a nominee to improve diverse representation. This particular initiative should in no way replace current recruiting efforts in place, but should augment them along with a general aim to increase broader recruiting for positions.

At this time the Task Force is not making a specific recommendation to adopt a formal variable incumbency model for Committees and Boards, but that concept could augment the recommendation put forth here. Positions with different incumbency terms within a single entity allows for a better combination of turnover and institutional memory.

A sampling of specific quotes from survey responses support this position:

- “AMS needs to do a better job of reaching out broadly to the members and inviting their participation. If I had not been nominated by a colleague I never would have volunteered to serve. It never occurred to me that I was qualified to do so...There needs to be more of a process for inclusion and selection.”
- “We need to advise boards and committees to seek out young people...Most young people do not realize there are opportunities or are not in the position to knock on doors.”

- “The procedures for how one joins a committee or board are still vague to me and I'm a Council Member who is on a Board.”
- “INVITE more people.”
- “Members rolling off boards should be required to submit at least 2 names of people they think could replace them.”
- “Encourage people who currently serve on them to actively think about who else should come up behind them - who isn't yet at the table and needs to be?”

Recommendation 5: Foster Early Career Pathways

In fall 2019, a proposal was brought forth to the ECLA Advisory Board chairs (see Appendix) on how to better serve ECLA graduates and get them into the pipeline of AMS leadership.

Recognizing these valuable suggestions, this Task Force reviewed the proposal and supports it.

A comment from the survey noted, "*there are several task forces related to leadership development and yet I never see publicly where the findings and suggestions are housed or the status of recommendations approved by Council. It'd be great to have this visible for the membership...and for other Councils and Presidents to see.*" In an effort to amend that, this Task Force has further considered this proposal and would like to propose its elements for Council approval:

1) Create 3-5 Early Career Ambassador positions, each designated for a one-year term with appointments that rotate across the different Boards and Commissions. These ambassadors would be drawn from incoming ECLA participants and ECLA graduates and be mentored by the Chair of their designated Board or Commission. We propose that these positions are unfunded except for a small stipend to offset their attendance at AMS (\$1000 each), thus offsetting the financial challenges some may face in continued participation. With the help of ECLA leadership, Ambassador applicants would select Boards or Commissions that match their interests; once selected and they would shadow their selected group for a year, participating in calls, meetings, activities and other items of interest. Doing so would give Ambassador insight into the mechanics, organization, and activities of AMS at a governance level.

For Council consideration: Within the ECLA application, applicants should indicate which areas of AMS they are looking to get involved in (specific boards/committees or commissions). Following each ECLA graduation, task the ECLA Planning Committee chairs to recommend the next group of Ambassadors by matching these participants with their preferred area of AMS involvement.

2) The Early Career Ambassador cohort participate in a session or panel within the Board on Early Career Professionals Symposium to discuss their experiences and insights with other early career attendees. This effort would be coordinated between the Chair of the BECP, ECLA, and the Ambassador.

For Council consideration: Allow each ECLA graduate a *waived conference registration fee* for the Annual Meeting that proceeds their ECLA class, to enable their

participation and further promote their involvement, and provide networking opportunities.

3) Language be included in the terms of reference for every Commission, Board, and Committee that they include 1-2 early career professionals in their groups, with special emphasis on those from historically underrepresented populations and with attention to less represented sectors (e.g. private sector).

For Council consideration: Require each board/committee and commission to include this in their Terms of Reference, in addition to the Council ballot (see recommendation 3 on page 9). Task each Commissioner to work with the AMS Secretary/Treasurer to make the necessary changes to official AMS documents such as the AMS Organizational Procedures, followed by seeking Council approval.

Appendix

Methods

Virtual interviews with early-, mid-, and late-career members of the WWCE took place during the spring, summer, and fall months of 2020. The interviews collected basic information about each participant, including their name, organization, and role, before leading into a series of open-ended questions chosen to enable a freeform dialogue about leadership and leadership development. Each discussion took about thirty to sixty minutes. The following questions guided our interviews.

- 1) Tell us about your leadership journey. How did you get your first leadership role? (Open ended)
- 2) Were you thinking specifically about leadership or looking for leadership opportunities? Was something else motivating your decision? (Open ended)
- 3) What kinds of challenges did you perceive or imagine? Did any of these come to pass? (Open ended)
- 4) Why is it important for you to take on leadership roles? (Open ended)
- 5) What aspects of leading seem especially important to you from your experience in your organization? (Open ended)
- 6) What kinds of qualities and skills do you think are needed today and in the near future by people taking on leadership roles in your organization? (Open ended)
- 7) Was mentoring available to you? How valuable were these interactions? (Open ended)
- 8) Have you ever had any formal leadership training? (Yes/No) If yes, what training? (Open ended)
- 9) What advice do you have for early career professionals who are looking to get involved, and take on leadership positions? (Open ended)
- 10) How can AMS help more people become involved in the Society, such as joining boards/committees? (Open ended)
- 11) Do you have recommendations for other individuals to interview? (Open ended)
- 12) Is there anything else you would like to share with the AMS Task Force on Leadership Development? We welcome your thoughts, feedback, and suggestions! (Open ended)

A total of 29 interviews were completed. Interviewees included members from academia, private sector companies, and the public sector.

External Material and Previous Reports

Proposal to Help Integrate ECLA Graduates into AMS Governance, Dr. Jennifer Henderson

One of the known challenges of AMS membership is retaining members at the early career stage. As noted in the 2019 report by the Early Career Involvement Task Force, some of the challenges stem from different career goals that do not map neatly onto AMS activities; from obstacles related to a lack of financial support, accessibility, or diversity; and unclear pathways to continue participation beyond student status. This proposal aims to address the latter problem.

In 2017, the AMS created the Early Career Leadership Academy, whose aim is to “build and sustain a diverse network of early career leaders in weather, water, and climate science, and provide an immersion experience in leadership, such as creative problem-solving; conflict resolution; building trust and enhancing communication skills” (Task Force 2019). Creating cohorts of early career professionals who have developed networks, skillsets, and resources to make them future leaders in AMS and the larger Weather Enterprise is a concrete outcome of this initiative. However, there is no clear pathway for continued participation in or deep understanding of AMS governance.

We propose three low-cost, high profile ways to address the pipeline of ECLA to AMS governance:

- 1) We propose that the AMS create 3-5 Early Career Ambassador positions, each designated for a one-year term with appointments that rotate across the different Boards and Commissions. These ambassadors would be drawn from incoming ECLA participants and ECLA graduates and be mentored by the Chair of their designated Board or Commission. We propose that these positions are unfunded except for a small stipend to offset their attendance at AMS (\$1000 each), thus offsetting the financial challenges some may face in continued participation. With the help of ECLA leadership, Ambassador applicants would select Boards or Commissions that match their interests; once selected and they would shadow their selected group for a year, participating in calls, meetings, activities and other items of interest. Doing so would give Ambassador insight into the mechanics, organization, and activities of AMS at a governance level.
- 2) We propose that each year at AMS, the Early Career Ambassador cohort participate in a session or panel within in the Board on Early Career Professionals Symposium to discuss their experiences and insights with other early career attendees. This effort would be coordinated between the Chair of the BECP, ECLA, and the Ambassador.
- 3) We propose that language be included in the terms of reference for every Commission, Board, and Committee that they include 1-2 early career professionals in their groups, with special emphasis on those from historically underrepresented populations and with attention to less represented sectors (e.g. private sector).

TAB 4.5.1
Next Future Planning Commissioner

The Planning Commission is in the midst of spinning up the three-commissioner structure, so Yvette will transition into the Past Commissioner role in January, and Susan Jasko, who was recently appointed Future Commissioner, will move into the two-year Commissioner role. That means we need to have the Council appoint a new Future Commissioner at this meeting so that this person can be prepared to step into that role this January.

Again, as with the Professional Affairs and WWCE Commissions, we followed standard practice of having the Executive Committee create a short list and I went to each asking if they would be willing to serve if appointed. As it turned out, only one candidate on that short list said yes. That was:

Andrea Bleistein, NOAA/NWS [<https://www.linkedin.com/in/ableistein/>]

Despite having only the one candidate after going through the process, Andrea is very well qualified for this role, and has had extensive service to the AMS (including serving on the Council and Executive Committee).

Action: Appoint the next Future Planning Commissioner for a term beginning January 2022.

TAB 5.0

Selection of Fifth Councilor

The Fifth Councilor is chosen by the Council to bring balance and/or diversity to the Council in terms of sector, discipline, etc. Recent Fifth Councilors have been terrifically helpful in Council discussions and decisions, and they have shown the value of this Council-selected position.

Those Council members completing their term this January are: Erica Grow, Wayne Higgins, Kim Klockow-McClain, Jim Steenburg, Kris Ebi (5th Councilor). Here are the returning Council members after January 2022:

President: Rich Clark
 Past Presidents: Mike Farrar
 Mary Glackin
 Class of 2023:
 Deke Arndt, NOAA/NCEI
 Ruby Leung, PNNL
 Vern Morris, Howard University
 Julie Pullen, Jupiter
 Efi Foufoula Georgiou, University of California, Irvine
 [Fifth Councilor position vacant with the resignation of Councilor]
 Class of 2024:
 Joan Alexander, NorthWest Research Associates
 Shuyi Chen, University of Washington
 Mark DeMaria, National Hurricane Center/NOAA
 Mike Henry, NASA (5th Councilor)
 Andrea Lang, University at Albany, State University of New York

A president-elect and four Councilors will be chosen from among the ballot in the current election to represent the Class of 2025:

President Elect Slate:
 Maureen McCann (News 13, Orlando, FL)
 Brad Colman (The Climate Corp)
 Council – Private Sector:
 Bernadette Woods Placky (Climate Central)
 Heidi Centola (IBM)
 Scott Mackaro (AccuWeather)
 Council – Academic Sector:
 Kristin Averyt (Univ. Nevada, Reno)
 Mona Behl (Georgia Sea Grant College Program)
 Jorge Gonzalez (City College of NY)
 Council – Government Sector:
 Jennifer Sprague-Hilderbrand (NOAA, NWS)
 Kandis Boyd (NSF)
 Andrew Molthan (NASA, Marshall Space Flight Center)

In the past, the Council has identified between two and four individuals for consideration at this meeting. Then I have gone to those candidates asking each if they would be willing to be considered and if so, have them create a candidate's statement similar to the ones provided by candidates on the ballot. The Council can then use an e-mail ballot to select the Fifth Councilor from the candidates willing to be considered. Last year, the Council decided to schedule a conference call the day after the election closed in order to do the vote for the fifth Councilor so that the election results were known prior to deciding.

The EC will be discussing possible subject areas from which the Fifth Councilor might be drawn at their meeting the day before the Council meets. They may have some recommendations for the Council to consider, but you should all give this some thought and come to the meeting with ideas on how the Council might best use this position to gain better diversity and balance on the Council regardless of how the election comes out.

Action: Select two to four potential Fifth Councilor candidates.

TAB 6.1 International Affairs Committee

The IAC is a committee of the Council. Its current membership is:

Ghassem Asrar, Chair, Universities Space Research Association (Term, 2024)
 Tanja Cegnar, European Meteorological Society and EUMETNET STAC (Term 2024)
 Daniel DePodwin, AccuWeather (Term 2022)
 Natalia Donoho, NOAA NSOF (Term 2023)
 Agnes Kijazi, WMO PR-Tanzania and Third Vice President of WMO (Term 2024)
 Robert Goldhammer, International Association of Emergency Managers (Term, 2022)
 Gregory Gust (Term, 2023)
 Jack Hayes (Term, 2022)
 Renee Leduc, Narayan Strategy (Term 2024)
 Lucas McDonald (Term, 2023), Wal-Mart Emergency Operations
 Wassila Thiaw, NOAA (Term 1024)
 Mary Glackin, Past-President, ex officio (Term, 2022)

This committee provides our formal representation in the International Forum of Meteorological Societies, and is also responsible for planning the international sessions at the Annual Meeting, so they are a pretty active group.

As noted, there are three members whose terms are completed this January: Daniel DePodwin, Bob Goldhammer, and Jack Hayes. The Council makes appointments for this committee. The Organizational Procedures call for the IAC to have no fewer than six members, including the most recent past-president (so Mike will take on that role next year) and a member of the Board on Global Strategies appointed by the CWWCE Commissioner (Renee Leduc had been appointed under that provision).

Ghassem has made the following recommendations:

Reappoint for a second three-year term:

Robert Goldhammer

Appoint for three-years terms:

Dr. Maria Uhle, Director of International Program Activities, National Science Foundation, Geosciences Directorate

Professor Charles Ichoku, Dept. of Atmospheric Sciences, Howard University

Action: Appoint/reappoint three members for three-year terms ending January 2025.

TAB 6.2

Task Force on Governance

There were a number of possible changes to the Constitution and Bylaws that came out of the task force that Mike Farrar led in his year as President-Elect. We are working through various aspects of those with the notion that we will eventually have a set of changes that can be done as a package. (This is especially important for any amendments to the Constitution given the complexity and time required in that process.)

TAB 6.2.1

Student Representation on Council

We have had several discussions on possible student representation on the Council (in addition to early career representations) without really converging on exactly what should be done or how candidates might be chosen for the student Council members.

Bruce Telfeyan created a discussion document as a starting point for additional Council consideration. That is provided as Attachment A. As you will see, it suggests Constitutional changes that allow student members to vote (which would include undergraduates) and provides for two student members on the Council (but suggests they be graduate students). Bruce suggests that a Student Advisory Board (SAB) be used to select potential candidates for Nominating Committee vetting. Stephanie had a proposal for an SAB early this year that was discussed by the Council, but no action was taken at that time. In brief the SAB and its potential role in selecting students to serve on the Council can be summarized as follows:

- The Student Advisory Board (SAB) would be composed of Student Representatives currently serving on AMS committees, with an anticipated membership of 30 or so students. The two student Council members would serve on the SAB.
- The Student Representatives serving on the SAB would be chosen from the pool of student members of the various boards and committees throughout the commissions, and any student wishing to also be a member of the SAB would work through a nomination process set at the AMS Commission level.
- Each year the SAB would send the Nominating Committee a list of proposed candidates. The Nominating Committee would refer to the list to select (and recommend to the EC and Council) three student members to appear on the annual ballot for election (probably as a fourth group in addition to the three sector groups) to the Council, with one student being elected each year for a two-year term.
- In addition to its role in providing candidates for Council, the SAB would be expected to play a vital role in AMS governance through recommendations and advice provided through the two student Council members directly to the Council. It could also respond to requests from the Council to provide feedback and a student perspective on prospective policies under Council consideration. The two student Council members would serve as the liaisons between the SAB and the Council.

When the SAB and student representation on the Council was discussed early in the year, the Council suggested that Stephanie might pull together some groups of student members to get their input. We decided not to do that for two reasons: 1) we have enough information from students already to know they would value a seat at the table in Council meetings, and 2) there was a real risk of getting the students excited at the prospect and having them expect such a change to be implemented very quickly, and given prior Council discussion (as well as the time required for a Constitutional change), we were worried that not fulfilling that expectation could be demoralizing for the students involved.

Action: Additional discussion and guidance on next steps for student representation on the Council.

TAB 6.2.1
Attachment A

Student Membership on the AMS Council:

If we are to add any student voting members to the AMS Council, I think that we need to review how student membership is regulated throughout the Commissions. Across the spectrum of AMS boards and committees, nearly all have a requirement or a recommendation to have a student member. Typical of these is from the Organizational Procedures for STAC which notes that “Each Committee and Board will include as a voting member at least one student member whose terms of appointment are for one to two years, with the privilege of reappointment for a period up to two years.”

Among the nearly 140 AMS boards and committees, there are few exceptions for the mandate of including a student member. These are cases where student input would not typically be appropriate (Fellows Committee, Awards Oversight Committee, most of the numerous award committees) or where aspects of our science are not directly involved, such as the Finance and Investment Committees.

As an aside, in my experience with STAC, we pressed hard to have each board and committee have a student member. It has been an ongoing area of emphasis with it being stressed at Annual Meetings, periodic conference calls, newsletters, and in the STAC Best Practices. A few STAC committees have added as many as four student members, but in spite of our efforts, when I left STAC leadership, there were still perhaps four or five boards or committees without a student member.

If we are to be consistent with the level of student involvement on our boards and committees, it seems excessive to me to have three student members added to the Council. Instead, I would suggest a student be elected for a two-year term every year. With this method, after two years, we would always have two student members on the Council, one in their first year and the other in their second year. The two-year term is consistent with the most common student tenure on AMS boards and committees and appropriate in that students tend to graduate and move into early career status. My own feeling is that student Council members should be graduate students. Serving on the Council without having earned a bachelor’s degree seems inappropriate. The process for the Nominating Committee to select the candidates for the student Council member is a separate matter. One approach could be in concert with Stephanie’s earlier proposal regarding a Student Advisory Board (SAB). If the SAB is formed, each year they could send the Nominating Committee a list of proposed candidates. The Nominating Committee would refer to the list to select (and recommend to the EC and Council) three student members to appear on the annual ballot for election as the new student member of the Council.

Notional Proposed Constitutional Amendments for Student Membership on the AMS Council (amended wording in red):

- Article III, paragraph 2:

2. The membership of the Society shall consist of:
Honorary Members
Fellows

Members

Associate Members

Corporation and Institutional Members

Student Members

Only Honorary Members, Fellows, **Members and Student Members** are eligible to vote, to hold office, and to be members of the Council, with such further limitations as may be imposed by this Constitution and Bylaws. Notwithstanding the preceding sentence, those in the grade of Member on 31 December 1965, who became Associate Members on that date, are eligible to vote. Professional Members on 31 December 1972 shall be designated Members thereafter.

- Article VII:

1. The corporate powers of the Society shall be vested in the Council subject to the Constitution and Bylaws of the Society. The Council shall be the principal governing body of the Society. It consists of the elective officers, the last two Past-Presidents, and **17 other voting members of the Society. Councilors (other than Student Members of the Council) are elected for a three-year term, with one-third retiring each year.**

Councilors are eligible for reelection but not to consecutive terms. The Executive Director and Secretary–Treasurer shall be members of the Council ex officio and without the power to vote.

2. Five Councilors shall be elected each year for a term of three years. Four of said Councilors shall be elected by members eligible to vote in accordance with the procedure set forth in Article VI of the Constitution. One of said Councilors shall be elected by the Council of the Society by the majority vote of the membership of the Council eligible to vote or by ballot by an affirmative vote of not less than two-thirds of the entire Council entitled to vote. **Additionally, Student Members of the Council are elected for a two-year term, with one being elected every year. The Student Member will be enrolled in a graduate program, typically a master's or doctoral degree program.** The Secretary–Treasurer shall send, at his option, by electronic mail or by mail via the postal service, to each member of the Council, at the option of the Secretary–Treasurer, either a ballot or a notice of the availability of an electronic ballot, which notice shall indicate the Universal Resource Locator (URL) where the ballot is located. To be counted, the ballot or electronic ballot, as the case may be, must be received by the Secretary–Treasurer not later than thirty (30) days after the ballot or notice of ballot, as the case may be, was sent to the Councilor. For the purpose of this Paragraph 2, the election of a Councilor by the Councilors of the Society may, at the option of the Secretary–Treasurer, be conducted by electronic ballot.

By-Laws:

Article I, paragraph 3 addresses the definition of a quorum for the Council. “Eleven Council members eligible to vote shall constitute a quorum.” I recommend leaving that number at eleven as it would still constitute a majority of the expanded 21-member Council. Of course, if the Council chooses to have more than two student members, we would then need to increase the quorum.

Note: There are perhaps other portions of the Constitution and By-Laws with may need to be amended, but if there are, they have eluded me.

Early Career Membership on the AMS Council:

I don't have a solid vision of how to address any requirement for Early Career membership on the Council. Here are some of the issues that I see as considerations,

hurdles, and possible remedies in finding a meaningful way forward:

- We have gone to great lengths to ensure representation from our three primary sectors. Personally, I have to question the need for us to carve out a reserved slot for an early career individual.
- While we typically think of early career as the ten-year period after the highest degree is earned, it is not uncommon for individuals to go back for another academic degree later in their career. Hence, there are people outside of the typical under-35 age group who are early career by our current definition. Consider that a 55-year-old could be elected to the Council who would meet our early career definition, but fail to address the optics of having younger professionals on the Council.
- The definition of early career is not set in stone and could change over time. This uncertainty could result in any policies we set up being obsolete or inappropriate in years to come.
- I haven't looked at our Council membership to state authoritatively regarding the numbers of early career individuals who have been elected to the Council in recent years. But, in the past five years I can cite at least two who were elected to the Council within the first ten-years of completing their formal education. Perhaps we are already addressing this concern with our existing process.
- The Fifth Councilor provides the option for the Council to add an early career member. Of course, in doing so, it takes away the opportunity to balance out other shortcomings.
- The Nominations Committee could certainly adopt an informal practice of having an early career member added to the ballot each year.

From my view as Secretary-Treasurer, I don't see any needed changes to the Constitution or By-Laws that would be required in efforts to ensure early career members to the Council. I believe any changes could be handled within the Nominating Committee procedures and with the layout of the annual ballot.

TAB 7.1

Status of Statements in Process

Below is a listing of statements in process. The type of statement is shown in brackets after the title.

With current staffing levels, we have struggled to provide the level of staff support needed to keep these moving forward. Those statements with Council liaisons who have been able to commit the necessary time and good drafting team chairs have done well, but others have languished. Ideally, the “nagging” aspect of this would fall on a dedicated staff position, but we have not been able to commit the necessary staff resources lately.

Hurricane Forecasting in the United States [Information]

(Council Liaison: Shirley Murillo) This statement was approved pending revisions at the end of April. Those revisions have not been completed, but hopefully will be very soon.

Weather and Forecasting [Information]

(Lead: Clark Evans; Council liaison: Jim Steenburgh) This statement is before the Council for approval for the 30-day member comment period under TAB 7.4.

Urban Climate and Extreme Weather Impacts in Cities [Information]

(Leads: Chandana Mitra and Valéry Masson; Council liaison: Julie Pullen) This statement is in process and we are expecting a proposal to the Council seeking approval of the draft team soon.

Radio Frequency Allocations [Policy]

(Lead: Jordan Gerth; Council liaison: Mark DeMaria) This statement was on hold while the spectrum committee deals with ongoing efforts to address 5G allocations with the FCC and others on the Hill, but we are still expecting it to get back on track.

Drought [Information]

(Council liaison: Efi Foufoula-Georgiou) This one has been in process for quite a while, but hopefully work on it can be reenergized.

Geoengineering the Climate System [Policy]

(Lead: Isla Simpson; Council liaison: Joan Alexander) Council just approved the drafting team for this statement.

Bachelors’ Degree in Atmospheric Science [Information]

(Lead: Tom Guinn) The call for volunteers was posted recently so the Council should get a proposal for the drafting team soon. This one still needs a Council liaison.

AMS Statement on Water Resources in the 21st Century [Policy]

(Leads: Rob Cifelli, Mike Dettinger, Francisco Munoz-Arriola) A proposal to revised the current statement is before the Council as TAB 7.2. We will need a Council liaison for this if the Council approves it to move forward.

Best Practices

Best Practices for the Severe Weather Safety for Pre-K through Grade 12 Children at School

This best practice statement is before the Council for approval for the 30-day member comment period under TAB 7.3.

TAB 7.2

Proposal to Revise AMS Statement on Water Resources in the 21st Century

Attachment A provides the proposal from the Water Resources STAC Committee to revise the current statement on water resources. If the Council approves having this revision move forward, we need to have a Councilor volunteer to serve as Council liaison on the drafting committee.

Action: Approve proposal to revise AMS Statement on Water Resources in the 21st Century and identify Council liaison who will serve on the drafting committee.

TAB 7.2 Attachment A

Proposal to Update the AMS Policy Statement on Water Resources in the 21st Century

Submitted by Members of the AMS Water Resources Committee:

Rob Cifelli (rob.cifelli@noaa.gov)

Mike Dettinger (mddettinger@gmail.com)

Francisco Munoz-Arriola (fmunoz@unl.edu)

The purpose of this document is to propose working with the AMS Council to update/revise the AMS Policy Statement on [Water Resources in the 21st Century](#), which was adopted in 2017. This statement has a time-in-force of 5 years and will expire in May 2022, unless action is taken to reaffirm or revise the statement. Here we briefly comment on why the statement should be updated.

Broadly speaking, the Water Resources Policy Statement is still relevant today as it was 5 years ago when it was published. The statement emphasizes the criticality of society's need for adequate water resources. The statement also discusses the impacts and consequences of future hydrologic change for planning purposes, the challenge with projecting future hydrologic change at scales relevant to decision makers, and the need for adaptive management in the face of large uncertainty. Finally, the statement notes the importance for coordination among scientists, engineers, and decision makers to achieve long-term sustainability in the face of hydrologic change.

However, several water resources themes have become more prominent in the last 5 years and should be reflected in this collective statement to improve the overall vision and message. These themes include:

- Discussions of inclusion and equity with regard to professional and public decision and policy making for water resources, as well as inclusion and equity issues regarding the sustainable distribution/access of safe and reliable water resources more generally, with particular attention to how the AMS community can contribute;
- The growing availability and complexity of water-related data and computer processing power has fostered new applications of artificial intelligence in water resources and operationalization of physically-based forecast models over large areas. The AMS community has an important role to play in educating, explaining, steering and supporting these trends; and
- The incorporation of social and cultural experiences into the design, construction and management of infrastructure for water resources in a changing world.

The AMS Council has a process in place to revise policy statements as described in the AMS Guidelines for Statements and Best Practices [document](#) and this proposal is the first step in the revision process. The AMS Water Resources Committee is well poised to work with Council and other AMS Committees to adapt the Policy Statement on water resources and assert it's relevance to the AMS and broader communities.

TAB 7.3
Best Practices for the Severe Weather Safety for Pre-K through
Grade 12 Children at School

The Board on Best Practices has prepared a draft best practice statement dealing with the safety of school children, and that draft is provided as Attachment A. This is going before the Council for approval to be posted for the 30-day member comment period. While this approval can be done by e-mail ballot, we received this draft right before the packet was about to go out, so it seemed to make sense to simply include this in the packet and allow you to consider the statement while you are meeting.

Action: Approve draft Best Practice Statement for the 30-day member comment period.

Best Practices for the Severe Weather Safety for Pre-K through Grade 12 Children at School Resources

A Best Practice Statement of the American Meteorological Society (Adopted by the AMS Council XXXXXXXX)

Motivation

The 2011 census report¹ estimated that there were in 5 million children in nursery school, 4 million children in Grade 12 during the census period. This represents the most vulnerable population segment in the U.S. education system. During weather emergencies that occurs at schools, they are totally dependent on their teachers, teacher aids and school administrators to shelter them from harm's way. While some guidance is available on a region by region or school by school basis, general guidance for best practices on a national level is limited. In addition, there is limited information about weather emergency planning for Pre-K through Grade 12 children at school. In order to determine the safest/best location to shelter in the event of severe weather, administrators are encouraged to contact appropriate technical specialists. These may include structural engineers, the architect of the project, and possible your local EM and Fire Department.

¹ Jessica Davis and Kurt Bauman, 2013, School Enrollment in the United States: 2011 Population Characteristics, U.S. Census Bureau, P20-571 Accessed April 10, 2018
<https://www.census.gov/prod/2013pubs/p20-571.pdf>

Audience

The best practices are intended to be for the benefit of the public; thus, the audience includes emergency action plan developers, school administrators and educational staff members at pre-K through Grade 12 facilities in both public and private sector.

Best Practice Characteristics

This Best Practice is a concise document that addressed the resources recommended for the safety of Pre-K through Grade 12 children before, during, and after a severe weather event occurs at their school. This includes references to existing FEMA documents on weather emergency safety as well as education of pre-K through Grade 12 children on weather emergencies and their role in response to them. It provides a reviewed set of documents and websites with annotations as the grade level for which they are appropriate.

Specific Best Practices

The reviewed and recommended list of individual documents and websites the administrators, teachers and parents could use in preparing a Severe Weather Emergency Plan refer to attached list.

Title	Author	Date	Location
How to Prepare Kids for Emergencies	Save the Children	no date	https://www.savethechildren.org/us/what-we-do/disaster-relief-in-america/preparedness
Disaster and Emergency Preparedness: Activity Guide for K to 6th Grade Teachers	International Finance Corporation	2010	https://www.preventionweb.net/educational/view/13988
Disaster and Emergency Preparedness Guidance for Schools	International Finance Corporation	2010	https://www.preventionweb.net/educational/view/13989
Be a Hero Youth Emergency Plan	FEMA	no date	https://www.hSDL.org/?abstract&did=798540
Guide for Developing High-Quality School Emergency Operations Plans	FEMA U.S. Department of Education	2013	http://www.wssca.org/resources/Documents/7.3%20FEMA%20Guide%20Ed%20Dorff%204-16.pdf
Readiness and Emergency Management for Schools	U.S. Department of Education		https://rems.ed.gov/EOPinteractivetools.aspx?AspxAutoDetectCookieSupport=1
Role of Districts in Developing High-Quality School Emergency Operations Plans	U.S. Department of Education	2019	https://rems.ed.gov/docs/District_Guide_508C.pdf?utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=
The Pillowcase Project: Learn. Practice. Share.	American Red Cross	2018	https://www.redcross.org/get-help/how-to-prepare-for-emergencies/emergency-preparedness-for-kids/disaster-preparedness-for-teachers.html
Sample Childcare Emergency Action Plan	FEMA	2011	https://emilms.fema.gov/is36/assets/EAP_Sample.pdf
Mitigation Case Studies: Protecting School Children from Tornadoes	FEMA	2002	https://www.fema.gov/sites/default/files/2020-08/protecting_school_children_tornadoes_ks_ssi.pdf
When the Weather Turns Severe: A Guide to Developing A Severe Weather Emergency Plan For Schools	Barbara Watson, NOAA	2018	https://www.weather.gov/media/aly/School%20Weather%20Safety%20Plan.pdf
Lightning Safety for Schools: An Update	Lushine, Roeder & Vavrek	2005	https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.135.9032&rep=rep1&type=pdf

Sample School Emergency Operations Plan" from FEMA. Used in conjunction with E/L 361 and G 364.	FEMA	2011	https://training.fema.gov/programs/emischool/el361/toolkit/assets/sampleplan.pdf
Severe Weather Preparedness Guide for Schools	NOAA, National Weather Service, Green Bay, WI, Weather Forecast Office	no date	https://www.weather.gov/grb/schools
Tornado Preparedness Tips for School Administrators	Roger Edwards	no date	https://www.spc.noaa.gov/faq/tornado/school.html
<u>Web Sites</u>			
Multihazard Emergency Planning for Schools Site Index	FEMA		https://training.fema.gov/programs/emischool/el361/toolkit/siteindex.htm
Preschool Safe Environments: Preparing for Emergencies	Department of Defense Virtual Lab School at The Ohio State University		https://www.virtuallabschool.org/preschool/safe-environments/lesson-8

In order to determine the safest/best location to shelter in the event of severe weather, administrators are encouraged to contact appropriate technical specialists and a representative faculty group. These may include structural engineers, the architect of the project, and possibly your local Emergency Management office and Fire Department.

Conclusion

The above best practice has been established to assist public and private educational settings in developing safety plans for their students. Any questions concerning these best practices should be addressed to the Board of Best Practices at:

amsbbpchair@gmail.com

This statement is considered in force until XXXXXX unless superseded by a new statement issued by the AMS Council before this date.

TAB 7.4
Statement on Weather and Forecasting

In August, we provided a draft of the Statement on Weather and Forecasting for Council discussion in preparation for a vote on approving it for the 30-day comment period. There were a few comments that came in from Council members that Jim Steenburgh passed on to the drafting committee. We hope to have a revised draft ready for your vote before this meeting. If so, we can get it to you separate from this package and use this placeholder for the vote. If not, we'll do a regular e-mail ballot approval after the meeting.

Action: If available in time, approve the Weather and Forecasting Statement for the 30-day member comment period.

TAB 7.5

Statements requiring Action

Listed below are statements that are just now expiring or will in the coming year. Only those meeting this criteria that are not already listed in TAB 7.1 are included here. The Council needs to decide on whether we should seek revised versions of these or let them expire. If we are to seek replacements, it would be good to get guidance on the best approach, and ideally have a Councilor volunteer to help with the effort as the Council liaison.

Flash Floods: The Role of Science, Forecasting, and Communications in Reducing Loss of Life and Economic Disruptions [Information]

(Adopted by AMS Council on 17 April 2017) – Expires April 2022

Freedom of Scientific Expression

(Readopted by AMS Council on 22 January 2017) – Expires January 2022

Best Practices for Publicly Sharing Weather Information Via Social Media [Best Practice]

(Adopted by the AMS Council 22 January 2017) – Expires January 2022

Climate Services [Policy]

(Adopted by the AMS Council 17 September 2015) – Expired September 2021

Action: For each statement decide whether to let the statement expire or seek a revised version to replace it.

TAB 8.1**ARA, ORA, HRA, Suomi, Washington, and Manabe Committees for 2021**

These committees are all committees of the Executive Committee so there are no actions required of the Council for these committees. The current year committee make-up is provided here as an informational item. The Executive Committee will be working on making appointments to replace those whose terms expire in January at their mid-September meeting.

Atmospheric Research Awards Committee

The current (2021) committee is:

Class of 2022

Inez Fung (Chair)

Jennifer Kay

Gabriel A. Vecchi

Class of 2023

George Bryan

Frank Marks (Chair-elect)

Class of 2024

Elizabeth Barnes

Trude Storelvmo

Ed Zipser

Oceanic Research Awards Committee

The current (2021) committee is:

Class of 2022

Michael Alexander (Chair)

Josh Willis

Class of 2023

Andy Hogg (Chair-elect)

Emily Schroyer

Class of 2024

Fei-Fei Jin

Martin Visbeck

Laure Zanna

Hydrologic Research Awards Committee

The current (2021) committee is:

Class of 2022

Dennis Lettenmaier (chair)

Dave Gochis

Class of 2023

Chris Milly

Soroosh Sorooshian (chair-elect)

Class of 2024

Wilfred Brutseart

James Smith

Suomi Committee

The Suomi Award committee is made up of two members each from the ARA, ORA, and HRA committees. The 2021 committee was:

ARA

Frank Marks (2023)
Ed Zipser (2024)

ORA

Emily Schroyer (2023)

HRA

Dennis Lettenmeier (2022) (Chair)
Soroosh Sorooshian (2023)

Washington Committee

Similar to the Suomi Committee, the Washington Award committee is made up of two members each from the ARA, ORA, and HRA committees. The 2021 committee was:

ARA

Jennifer Kay (2022)
Ed Zipser (2024)

ORA

Mike Alexander (2022)
Emily Shroyer (2023)

HRA

Soroosh Sorooshian (2023) (Chair)
James Smith (2024)

Manabe Committee

The Manabe Committee is appointed by the EC, but specific to be chaired by the chair of the STAC Climate Variability and Change (CVC) Committee and to have three other CVC members. The 2021 Committee has been:

Class of 2022

Kerry Cook (Chair)
Gudrun Magnusdottir

Class of 2023

Robert Korty
Young-Oh Kwon

Class of 2024

Tom Delworth
Noah Diffenbaugh
David Thompson

TAB 8.2

Awards Oversight Committee

The Council reviewed the AOC report in the July meeting and dealt with the action items in the report at that time. During the July meeting, there was a request from the Publications Commission for the Council to create an additional Editor's Award that could be awarded to reviewers who served multiple journals with distinction. The Council asked the AOC to review this proposal and make a recommendation. The proposal provided to the AOC was:

Request to the Awards Oversight Committee to support the Publications Commission request to Council to approve one additional Editor's Award for reviewers who serve multiple AMS journals.

Background: Current AMS policy, as approved by Council, entitles each journal to an Editor's Award, provided there is a worthy candidate. Because of the growth in submissions over time, Council has also approved one additional award for each 500 submissions, to be shared among the journals based on the number of manuscripts submitted to each journal. Thus the Journal of Climate, with ~1,000 submissions/year, gets two additional awards. For the other journals, none of which gets 500 submissions/year, a partnering system is used in which journals are paired according to their combined submission rate. For example, JPO and JHM get one extra award to be nominated by agreement of the Chief Editors. In most cases, the paired journals alternate from year to year, with the additional awards being associated with a particular journal.

Justification: As the topics of manuscripts submitted to AMS journals have become more crosscutting, it has become more common for reviewers to serve multiple journals. The standard practice of associating Editor's Awards with individual journals is not an ideal format for recognizing such important contributions. Plans are under development for systematically combing the AMS reviewer database to identify reviewers who have served multiple journals. Only the most accomplished of these reviewers would be considered, should Council approve this additional award.

The AOC reviewed this and supports Council approval of it.

Action: Council approval for one additional Editor's Award for reviewers who serve multiple AMS journals.

TAB 8.2.1
Proposal for Earth System Predictability Prize

The AOC has been reviewing a proposal for some months that would establish an award named after J. Shukla and focus on Earth system predictability. The AOC report on this review with the AOC recommendations is provided in Attachment A. As you can see, the AOC is recommending moving forward with this new award, and it has also prepared a set of guidelines to be approved by the Council as policy governing future requests for endowed honors.

Actions:

- **Establish the Jagadish Shukla Earth System Predictability Prize pending Dr. Shukla completing the AMS Professional Conduct Disclosure Form.**
- **Adopt the guidelines in the report's Attachment 2 for any future requests for endowed honors.**

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Awards Oversight Committee Report
on
the Proposed Jagadish Shukla Earth System Predictability Prize

The Awards Oversight Committee (AOC) reviewed the proposed Jagadish Shukla Earth System Predictability Medal submitted by Dr. James Kinter (Attachment 1). The AOC recommends establishing this honor as a Prize vs. Medal starting with the 2022 award cycle and adopting the guidelines given in Attachment 2 for any future proposals.

Background: It was noted that Dr. Shukla had agreed to endow such an award at a level to allow a prize of \$10,000 to be awarded annually. Dr. Shukla is an honorary member of AMS and a Rossby Medalist; Attachment 1 provides further details including Dr. Shukla's groundbreaking work in predictability.

The only other monetary prize is for the David and Lucille Atlas Prize which Dr. Atlas endowed and was awarded as a Remote Sensing Prize until his death when it was renamed to honor him.

Considerations: The AOC has considered the appropriateness of such an award.

Scope. The AMS considered the proposed scope including fit to AMS mission and candidate pool. With further discussions with Dr. Kinter, the scope of the award would be "for researchers who make outstanding contributions to the fundamental understanding of the predictability of the Earth as a system, and its application to prediction, at all time scales from hours to decades, for the benefit of society." This scope aligns well with AMS's mission. With this scope, it appears we'd have a sufficient pool of candidates; however, there is no ready way to demonstrate that with objective data. For example, it wouldn't be easy to mine publication data for the past five years since many journals would be involved and individual articles would need to be scrutinized.

Fit with other AMS Awards and Honors. Overlap with other awards was considered as well. It was noted that for the most part our older top-level awards (e.g., Rossby Medal and Charney Medal) are described fairly broadly while more recently established awards are more targeted (e.g., Joanne Simpson Award for Tropical Meteorology Research and Syukuro Manabe Climate Research Award). It was also noted that our top-level awards tend to capture life time achievement rather than for a 'significant effort'. However, this distinction isn't clear in the write ups. And, it is noted that there can be overlap with these existing awards (e.g., this year a number of the candidates for the Charney Medal would have been competitive for the Rossby Medal). The AOC believes that the focus on predictability will distinguish this award from other awards. The AOC recommends the next review of AMS Awards (to be done in 2025) carefully review all descriptions to minimize overlap.

AMS Community Perceptions. The clear value of having an additional monetary award was noted and it will no doubt be appreciated by the AMS community. The AOC noted that Dr. Shukla as an AMS Honorary Member, is already acknowledged as having "preeminence in the atmospheric or related oceanic or hydrologic sciences, either through their own contributions to

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the sciences or their application or through furtherance of the advance of those sciences in some other way.”¹

The AOC feels there should be transparency regarding the origin of the honor. Thus, it is recommended we clearly label this honor as a “Prize” vs. a “Medal” and to be transparent on [the website](#) that Prizes are endowed by or for the honoree. This would include adding a sentence or two to the Atlas Prize to note Dr. Atlas’ financial contributions.

Further, consideration needs to be given to future requests for establishing Prizes. To this end, the AOC is proposing that Council adopt the proposed guidelines offered in Attachment 2.

Recommendations: (1) Establish the Jagadish Shukla Earth System Predictability Prize pending Dr. Shukla completing the AMS [Professional Conduct Disclosure Form](#) and (2) adopt the guidelines in Attachment 2 for any future requests for endowed honors.

Proposed website addition

The Jagadish Shukla Earth System Predictability Prize

The Jagadish Shukla Earth System Predictability Prize is presented to researchers who make outstanding contributions to the fundamental understanding of the predictability of the Earth as a system, and its application to prediction, at all time scales from hours to decades, for the benefit of society. The award includes a medallion and a monetary prize.

Nominations are considered by a committee composed of representatives from the Atmospheric Research Awards Committee, the Oceanographic Research Awards Committee, and the Hydrologic Research Awards Committee; recommendations are presented to AMS Council for final approval.

This Prize is awarded annually, and it is accompanied by a medallion and a cash prize of \$10,000. It is generously endowed by AMS Honorary Member Dr. Jagadish Shukla.

¹ AMS Constitution excerpt describing AMS Honorary Members.

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5 January 2021

Ms. Mary Glackin, President and Dr. Michael Farrar, President-Elect
 American Meteorological Society

Subject: Proposal for a new AMS Medal

Dear Ms. Glackin and Dr. Farrar,

I would like to propose that the American Meteorological Society create a new award to be designated the Jagdish Shukla Earth System Predictability Medal. The award should be on the same level as other distinguished AMS award and be accompanied by a prize. I have been in contact with Dr. Shukla, who will donate the endowment funds to support an annual prize at the level of \$10,000.

The reasons for creating the award and naming it after Dr. Shukla are numerous. First, an examination of the current AMS awards suggests that there is a gap in the area of predictability and prediction. While there are medals for atmospheric structure and behavior, hydrology/hydrometeorology, dynamics and physics of the ocean, technological achievement, interactions of the ocean with the atmosphere, land surface or cryosphere, remote sensing, as well as significant contributions to research, scientific leadership, service, teaching, mentorship, and outstanding contributions by individuals, corporations, authors, broadcasters, reviewers, and forecasters, none of the existing awards recognizes significant advances in understanding the predictability, and making predictions, of the Earth as a system – an area that most directly affects society. Second, the field of Earth system predictability, which came into existence only about 60 years ago, now has a large group of researchers and practitioners, as evidenced by international initiatives (e.g., Brunet et al. 2010; Shapiro et al. 2010; the Coupled Model Intercomparison Project – CMIP6), national programs (e.g., Carman et al. 2017; NASEM 2020), and the number of articles appearing in AMS journals (over 14,000 in the past decade) and elsewhere. Third, Earth system predictability is now a fundamental concern to society with the rapid changes in severe weather, flooding and drought that have been observed in recent decades and that are projected to increase in the future as a result of global climate change. Earth system predictability is the motivating concept behind the adoption of Earth system models by the major weather and climate services around the world to provide numerical guidance for their forecast products, and it has been called out as a high priority in the U.S. national research and development agenda for the past two years (OSTP 2019; 2020). Given the growing importance of this still rapidly evolving field of inquiry, the AMS can get in front of this groundswell and give scientists engaged in research on Earth system predictability the proper level of recognition.

Naming this award after Dr. Shukla is likewise an obvious choice. Shukla, as all his friends and colleagues refer to him, can be considered the initiator and chief proponent of this branch of our science. During the 1970s, the “butterfly effect” or “chaos” was the dominant theme of predictability research, and the community was skeptical about the prospects for dynamical prediction beyond weather. Shukla’s innovative research led to the notion of *predictability in the midst of chaos*, by showing that there is a scientific basis for the prediction of climate beyond the deterministic limit of the predictability of daily weather that derives from the influence of the slow variations of the underlying ocean and land boundary conditions and their interactions with the atmosphere. His early work in the 1980s, sought to put the pioneering work of Ed Lorenz on the (un)predictability of weather in context, showing that spatial

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and temporal average meteorological quantities may be predictable beyond the deterministic limit (Shukla 1981) and then that interactions of the atmosphere with the surface (ocean, land, ice) can produce longer lead predictability (Shukla 1983), culminating in his 1998 *Science* article. Thus, while Lorenz is unquestionably recognized as the father of the butterfly effect and chaos theory, Shukla can be viewed as the father of the concept of predictability in the midst of chaos (Shukla 1998).

Beyond his research pursuits, Shukla has worked tirelessly at the national and international levels to promote the science of Earth system predictability, playing leadership roles in the World Meteorological Organization's (WMO) programs on Tropical Ocean Global Atmosphere (TOGA), Climate Variability (CLIVAR), Global Ocean-Atmosphere-Land System (GOALS; NRC 1994), Global Energy and Water Experiment (GEWEX), World Climate Research Program (WCRP; as chair of the Joint Scientific Committee or JSC) and Coordinated Observation and Prediction of the Earth System (COPES). He also led the organization of the World Modeling Summit in 2008 where the world's foremost experts gathered to advocate that it is both necessary and possible to revolutionize climate prediction to create a new generation of models that will enhance predictability and prediction skill (Shukla et al. 2009). Much of the development of high-resolution Earth system models was motivated by the "manifesto" that issued from that Summit. Shukla also provided much of the impetus for the worldwide interest in re-processing past observations of the atmosphere and ocean, termed reanalysis (Bengtsson and Shukla 1988). Furthermore, he has created institutions dedicated to advancing Earth system predictability, including the Center for Ocean-Land-Atmosphere Studies (COLA), the Climate Dynamics Ph.D. program at George Mason University, the National Center for Medium Range Weather Forecasting (NCMRWF), India, and the weather and climate section, now called the Earth System Physics section, of the International Centre for Theoretical Physics (Trieste, Italy).

A short bio-sketch of Shukla is provided below, and I can provide additional information as needed.

In summary, I believe the time is ripe for the AMS to create a new award to honor scientists who are studying and predicting the Earth as a system, and there is no better person to honor than Shukla by naming the award after him. I will be happy to discuss this further.

Sincerely,



James L. Kinter III
Chair
Fellow, American Meteorological Society

Cc: Dr. Keith Seitter, Executive Director

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Biosketch of Dr. Jagadish Shukla:

J. Shukla was born in 1944 in a small village (Mirdha) in the Ballia district of Uttar Pradesh, India. This village had no electricity, no roads or transportation, and no primary school building. Most of his primary school education was received under a large banyan tree. He passed from the S.R.S. High School, Sheopur, in the first class with distinction in Mathematics and Sanskrit. He was unable to study science in high school because none of the schools near his village included science education. His father, the late Shri Chandra Shekhar Shukla, asked him to read all the science books for classes 6 through 10 during the summer before he was admitted to the S.C. College, Ballia, to study science. After passing the twelfth grade from S.C. College, he went to Banaras Hindu University (B.H.U.) where, at the age of 18, he passed BS (honors) with Physics, Mathematics, and Geology in the first class and then earned the MS in Geophysics in the first class in 1964. He received PhD in Geophysics from BHU in 1971 and ScD in Meteorology from MIT in 1976. He has held positions as Senior Scientist at NASA Goddard, Professor at the University of Maryland, University Professor at George Mason University, and the founding director of the Center for Ocean-Land-Atmosphere Studies (COLA). The author of over 250 scholarly papers, and adviser to over 25 Ph.D. students at MIT, Univ. of Maryland and GMU, Dr. Shukla's work has been cited over 30,000 times (h-index 81, according to Google Scholar). Dr. Shukla is an Honorary Member of the American Meteorological Society (AMS), Fellow of the American Geophysical Union (AGU), Associate Fellow of TWAS (the academy of sciences for the developing world), and he has been honored with the highest awards from the AMS (Carl-Gustaf Rossby Research Medal), the Indian Meteorological Society (Walker Gold Medal), the World Meteorological Organization (International Meteorological Organization Prize), and NASA (Exceptional Scientific Achievement Medal). He has also been honored with one of the highest awards given by the President of India, the Padma Shri National Award. Dr. Shukla founded and supports a college in his birth village to educate and empower girls from the rural areas.

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Attachment 2
Proposed Policy for Consideration of Future Prize Requests

The following text is recommended to be added to the [Guidelines for AMS Society and Commission Awards](#). AMS Council may consider renaming this document to: Guidelines for AMS Society and Commission Awards and Honors.

All final decisions on the creation of monetary prizes are made by AMS Council. The Awards Oversight Committee (AOC) will review proposals considering fit to AMS mission, expected size of candidate pool, and fit with other AMS Honors; the AOC will make a recommendation to AMS Council. For prizes named in honor of the donor, AOC will consider the stature of the individual; prizes should only be named for those individuals who are completing a career, or who have recently died having completed a career, of significant achievements in their field and whose contributions would make them worthy of consideration for Honorary Member of the AMS.

TAB 8.2.2
Report of the Ad Hoc Committee on Cleveland Abbe

Attachment A provides the report from the ad hoc committee looking into the history of Cleveland Abbe given concerns that had been raised that he may have been involved in the eugenics movement.

Action: Decision on whether the historical information on Cleveland Abbe requires any adjustment in the naming of an AMS award in his honor.

**AMS ad hoc Committee-Abbe Report
August 2021**

Purpose of the Report:

The Committee's charge was to present a report to the AMS Council on the most probable historical account of Cleveland Abbe. To this end, the committee worked to gather sufficient information to gain a better understanding of the contributions of Cleveland Abbe to the atmospheric science community as well as to examine parts of his biography that have come into question, so that the AMS Council can make informed decisions about how to appropriately utilize his legacy.

Committee Members:

Lourdes Avilés, Plymouth State University
Jim Fleming, Colby College
Penelope Hardy, University of Wisconsin-La Crosse
Bob Henson, Meteorologist and Freelance Journalist
Sepi Yalda (chair), Millersville University

General Structure and Plan for the Committee's Work in Preparation of the Report:

The Committee met twice (3 March 2021 and 7 April 2021) to discuss their task and a strategy for the development of the report. The committee collaboratively gathered a collection of verified resources on Abbe, including related manuscripts, books and other historical notes, and created a private shared drive. In addition, the Committee decided to interview experts and those most closely familiar with the existing research and documentation on Cleveland Abbe. The following experts were identified and invited for interviews.

Bill Hooke, American Meteorological Society
Sean Potter, Author, Too Near for Dreams: The Story of Cleveland Abbe, America's First Weather Forecaster
Greg Romano, NOAA National Weather Service
Marc Rothenberg, National Science Foundation Historian (Retired)
Louis Uccellini, NOAA National Weather Service

Two interview dates were established to speak with the experts in two group Zoom sessions. The committee put together the following questions, which were shared with the experts ahead of their interview date:

1. What were Abbe's roles and contributions in the area of science?
2. What were Abbe's roles and contributions in the area of public service?
3. Is there any evidence pointing to potential involvement by Abbe in activities in support of eugenics?
4. What were Abbe's most significant achievements related to the National Weather Service?
5. Is there anything else you think we should consider in evaluating Abbe's legacy?

The two interviews were conducted on the following dates:

13 May: Potter, Hooke, and Rothenberg

17 May: Romano and Uccellini

After the interviews were conducted, additional resources that were shared with the Committee by the experts were added to the private shared drive. The Committee met on 2 June 2021 to review the outcomes of the interviews and discuss the structure of this report. **The following consensus report is based on a final review of resources, supporting documents, and expert interviews.**

1. Introduction and Background

Cleveland Abbe (1838-1916) began his professional life as an astronomer and studied and worked with several scientists between 1858 and 1864. He studied in Russia from 1864-1866 where he worked at the Nicholas Central Observatory in Pulkovo. When he returned to the United States in 1867, he worked as an aide at the U.S. Naval Observatory and in 1868 became the director of the Cincinnati Observatory. It was during this time that he developed a professional interest in meteorology. From September to December 1869, Abbe prepared regular weather forecasts for the public from the Cincinnati Observatory, based on the contemporary scientific understanding of weather features and on observations available through telegraph reports. These activities preceded the creation of the first national weather service, which was authorized in February 1870 under the U.S. Army Signal Service. Abbe was not directly involved in the effort to authorize the new service, although he communicated with other key individuals, such as Increase Lapham, who played a significant role in the new agency's establishment. In January 1871, Abbe joined the fledgling weather service as a civilian assistant to the chief signal officer, General Albert Myer, who adopted many of Abbe's protocols for observing and reporting the weather. Abbe dedicated the remaining 45 years of his career to the weather service, where he remained focused on science and service to the field of meteorology.

2. Abbe's Roles and Contributions in the Area of Science

Among Abbe's most notable scientific contributions were bridging the two disciplines of astronomy and meteorology and operationalizing the concept of regularly produced weather forecasts based on scientific principles and observations. Fluent in both French and German, Abbe translated many of the critical works on astrophysics and atmospheric dynamics and brought them to the attention of English-speaking meteorologists. Abbe acknowledged his intellectual debts to other pioneers, such as William Redfield, James Espy, Joseph Henry, Elias Loomis, and Increase Lapham, for their significant contributions toward developing the basis for forecasting. Abbe played a key role in developing the system of storm warnings and tri-daily and long-range forecasts for the newly established weather service, supervised the service's Scientific and Study Division (also known as the "Study Room"), and helped to educate a broad audience through his work as the editor of the *Monthly Weather Review*, engaging meteorologists and other scientists in U.S. and internationally, and through public lectures. Several references ranging from written testimonies to public remarks by colleagues and contemporaries support and further validate Abbe's contributions to weather forecasting activities, atmospheric science research, and the promotion of the field of meteorology. Abbe was active in international scientific and learned societies and received several major awards, including the Symons medal of the Royal Meteorological Society, the Longstreth medal of the Franklin Institute, and the Hartley medal of the National Academy of Sciences (now the

NAS Public Welfare Medal). He was awarded honorary degrees by the University of Michigan, College of the City of New York, University of Glasgow, and Harvard University.

3. Abbe's Roles and Contributions in the Area of Service

Abbe was dedicated to public service, not only through his long-term commitment to public weather forecasting but also as evidenced through his time as a volunteer in Sunday schools in Black communities, his interest in providing education for teachers, and his efforts to improve general understanding of science. Furthermore, he was interested in inspiring teachers, lectured on various topics in meteorology at several universities, and gave a number of public lectures. He was also a strong advocate for graduate education in meteorology. Abbe stated in a letter to the Weather Bureau that "the highest ambition is to be useful and help and save others from making mistakes." He was also committed to serving the meteorological community through his service as the editor of the *Monthly Weather Review* and through communicating routinely with other scientists both at home and abroad.

4. Potential Involvement by Abbe in Activities Related to Eugenics

The eugenics movement gained popularity in the United States and reached its peak in 1926 with the founding of the American Eugenics Society, a decade after Abbe's death in 1916. Based on a review of the existing resources and expert interviews, the Committee found no direct evidence that Abbe was involved in the eugenics movement. Abbe worked with some individuals who may have been involved with eugenics, and his name and his longtime interest in genealogy were used after his death to promote the ideas of the movement. However, there exists no document that could be considered evidence of his involvement in the eugenics movement. It is also important to note that there is no evidence of Abbe adopting or advocating the social and political positions associated with eugenics. On the contrary, there exists evidence based on primary source materials that Abbe helped contribute to improving the conditions for persons of color in his free time, which included teaching in Sunday schools, making monetary contributions, and supporting those who were part of dedicated efforts to help support Black communities. Expert interviews highlighted the fact that even though some of Abbe's views on evolution would be considered dated, it is of utmost importance to consider this in the context of the time and as a reflection of thoughts and views that were then prevalent and accepted.

5. Abbe's Most Significant Achievements Related to the National Weather Service

Abbe played a significant role in establishing the forecasting methods used during the founding years of the agency that today is the National Weather Service, including the transition from a single probability forecast to a system that included three daily forecasts based on observations, and his method for long-range forecasts, described in his 1901 *Monthly Weather Review* paper titled "The Physical Basis of Long-Range Weather Forecasts." This brought him into conversation with the famous Norwegian geophysicist Vilhelm Bjerknes, who is considered the founder of geophysical fluid dynamics. Another important contribution was to encourage other researchers and scientists through the concept of the Study Room. He strongly promoted the importance of research for accurate forecasting. Abbe was not the first employee of what is now the National Weather Service and never served as its director, and there is no evidence he made either of these claims himself, although others may have done so after his death. Abbe was the agency's sole forecaster during its first year of routine daily weather predictions, and he served as a stabilizing force in the weather service, in part because of his long tenure and his dedication to advancing

the science and to public service. He also contributed to the development of standard time in the U.S., the need to standardize meteorological observations, translations and encouragement of developing academic meteorology programs.

Summary Statement:

Based on the review of all relevant resources, supporting materials and expert interviews, the Committee members agreed on the following statements:

- Cleveland Abbe made significant contributions to the field of meteorology and the weather service through helping to develop the system of storm warnings, establishing the practice of daily and long-range forecasts, supporting and nurturing the importance of basic research in forecasting and the science of meteorology, performing consistent and dedicated service, and promoting education and careers in the discipline.
- There is no evidence suggesting that Cleveland Abbe made a claim to have created the nation's weather service.
- There is no evidence suggesting that Cleveland Abbe was involved in and/or advocated for activities related to the eugenics movement.

Recommendation:

The Committee recommends that AMS consider updating the current biography of Cleveland Abbe that was previously online, with Abbe's life story and achievements presented in an appropriate context based on the historical record. Committee members would be happy to prepare a draft of such a biography upon request.

TAB 8.2.3
Possible Change for AOC and Fellows Committee Chair Terms

This item was in the July Council agenda, but on the recommendation of the Executive Committee it was deferred to this meeting.

As you know the Past President chairs the AOC and the Second Past President chairs the Fellows Committee. Both are important jobs that require time and attention to detail. The downside of this practice is that a Past President does each job once (largely figuring out how to do it on the fly in that one year) and then moves on. A different approach would be to alternate the roles so that each Past President chaired one of these two years in a row. Under this arrangement, for example, Mary would continue to chair the AOC next year in her role as Second Past President, while Mike then as Past President would take on chairing the Fellows Committee and do that for two years (with Rich then eventually doing the AOC for two, and so on).

If there is some consensus on making this change, we could plan on implementing this with the 2022 awards season and have the appropriate language changes be part of the larger Organizational Procedures update that is done at the January Council meeting.

Action: Decide on chair structure for the AOC and Fellows Committee.

TAB 8.3

Fellows and Awards Nominations Committees for 2022

Just as with the other awards committees, we need to try to achieve lots of different sorts of balance in relatively small committees. Having members who know a range of people and areas of specialization is very helpful. We have provided some names, and I hope you can add to the lists.

Fellows Committee

The Fellows Committee has traditionally been chaired by the second Past-President (pending a change based on the prior agenda item). Under that scheme, Mary would chair next year.

The membership for the 2021 committee was:

Class of 2022

Carolyn Reynolds – Naval Research Lab. - NWP
 Alan Sealls, CBM – WKRG-TV – Broadcast Met.
 Christopher Thorncroft – U. Albany – Atmos. Dynamics

Class of 2023

Linnea Avallone NSF – Atmospheric Chemistry
 Mark Powell, CCM, Risk Management Solutions– Hurricane (former Govt. sector)
 Dan Wilks, Cornell – Statistics

Class of 2024

Leo Donner, GFDL/NOAA – Atmos. Physics, Atmos. Radiation
 Rong Fu, UCLA – Hydrologic Cycle and Climate Change
 Ada Monzon, EcoExploratorio – Broadcast Met
 Christopher Veldon, SSEC Univ. Wisconsin – Satellite
 Steven Weiss, NWS/NOAA (retired) – Severe Local Storms
 Chidong Zhang, NOAA/PMEL – Tropical Met

Carolyn, Alan, and Chris complete their terms in January 2022. The Organizational Procedures call for the Fellows Committee to include at least two members from the “operational and/or private communities,” and currently Alan Sealls, Mark Powell, and Ada Monzon satisfy this requirement, with Steven Wiess also contributing to this through his experience even though he recently retired from the NWS.

Shuyi Chen had been on this committee but needed to step down after being elected to the Council. That is partly why the classes are so uneven, but the other reason is that the Council had been looking to increase the size of this committee from 9 to 12 members to make it easier to get more disciplinary diversity.

In order to work toward a stable committee of 12, you should probably appoint four new members to start three-year terms this January instead of just replacing the three outgoing members, even though that will result in 13 members next year.

Here is a “starter list” of potential members, but of course, you should feel free to suggest other Fellows for consideration (and note that committee members should be Fellows).

Government Sector:

Harold Brooks, NOAA/NSSL – Severe Local Storms

Dave Zittel, NOAA – Radar

Michelle Santee, NOAA/JPL – Remote Sensing, Atmos. Chem., Earth Sci., Middle Atmos.

Martha Anderson USDA/ARS – Remote Sensing, Hydro/Hydromet., Ag. and Forest Met.

John Cortinas, NOAA/NWS – Severe Local Storms

Wassila Thiaw, NOAA/CPC – Climate and International Met

Steven Klein, Lawrence Livermore Lab – Cloud processes

Private Sector:

R. Nick Keener, CCM, Duke Energy – Hydrology/Hydrometeorology

Paul Gross, CCM, CBM – WDIV-TV – Broadcast Met.

Pam Emch, Northrup (retired) – Hydrology/Hydrometeorology, Rem. Sensing

Janice Huff, WNBC – Broadcast Met

Academic:

Clara Deser, NCAR – Climate Variations

Bin Wang, Univ. Hawaii – Atmos. & Clim. Dyn.

Chris Velden, Univ. Wisconsin – Remote Sensing

Sandra Yuter, NC State Univ., – Remote sensing

Thomas Mote, Univ. Georgia – Remote Sensing

Joyce Penner, U. Michigan – Air-Pollution, Atmos. Chem.

John Knox, Univ. Georgia – Air turbulence

Adam Sobel, Columbia – Climate Science

Jeff Collett, Colorado State – Air-Pollution, Atmos. Chem.

Michael Ek, NCAR – NWP

Courtney Schumacher, Texas A&M – Tropical Met

Jenny Sun, NCAR – Radar Met

Action: Appoint four new members for the Fellows Committee for terms ending in January 2025.

Awards Nominations Committee

This committee's current membership is listed below. As you can see, Fei Chen, Greg Fishel, and Lee Lueng Fu all complete their terms this January. Note that Fei Chen had been chair, so we will need a new chair.

The 2021 Awards Nominations Committee:

Fei Chen, chair, NCAR – Term 2022

Dara Entekhabi, MIT – Term 2023

Greg Fishel, Priogen (former broadcaster) – Term 2022

Lee-Lueng Fu, NASA/JPL – Term 2022

Dennis Hartmann, Univ. of Washington – Term 2023

Glenn Kerr, American Assoc of Climatologist – Term 2023

Shawn Miller, Raytheon – Term 2023

Andrea Ray, NOAA – Term 2023
 Teri Adams, Howard University – Term 2024
 Jennifer Alexander, USAF – Term 2024
 Chris Davis, NCAR – Term 2024
 Alex Garcia, CBM, KABB-TV – Term 2024
 Jose Fuentes, Penn State – Term 2024
 Steve Platnick, NASA – Term 2024
 Kristen Corbosiero, SUNY – Term 2024

The committee has often been a little larger than its current size and so you should feel very comfortable adding more people to increase its disciplinary breadth. The Council failed to select a chair-elect last year, so you need this year to select both a chair and a chair-elect. Fei Chen has suggested:

Chair: Dara Entekhabi
 Chair-elect: Jose Fuentes

A few possible additional member suggestions are listed below in no particular order. Former award committee members are often good on this committee since they understand the value of having more nominations for the committees to review. You all may have ideas for new members to add to this list for use now and in future years. Many all the folks listed below are university people, because they are more likely to have served on the research award committees, but we really need more sector and experience diversity than this list provides.

The ANC report that was provided to the Council in July strongly recommended that the next round of appointments include some NOAA folks and operational forecasters. Further, Fei Chen has suggested that the Council consider Roy Rasmussen from NCAR, because his expertise in cloud physics and regional climate modeling would make excellent addition to ANC. He was elected Fellow a while ago.

Roy Rasmussen from NCAR [Recommended by Fei chen]
 Ron Smith, Yale
 Antonio Busalacchi, UCAR
 Laurence Armi, Scripps
 Anne Douglass, NASA/GSFC
 M. Susan Lozier, Duke
 Amy Clement, Univ. Miami
 Paul Markowski, Penn State
 Jennifer Kay, CIRES/U.Colorado
 Richard Rotunno, NCAR
 Dusan Zrnica, NOAA/NSSL
 Lynne Talley, Scripps
 Randy Koster, NASA/GSFC
 Witold Krajewski, Univ. Iowa

Action: Recommend to the Council at least three new members to the ANC for terms ending in January 2024, and chair-elect for 2021.

TAB 9.0
Selection of Councilor to Serve on the Executive Committee

The Executive Committee includes two members of the Council, each serving for two years. Erica Grow completes her service on the Executive Committee this January as she also completes her term on the Council. Given the two-year terms for this Executive Committee position, those serving in this role are traditionally chosen from the “class” of Councilors who have two years left on their Council term.

Starting last year, we implemented a new process for selecting the Council members serving on the Executive Committee. In this process, the five Councilors who are in the first year of their term represent the eligible candidates, and a ballot will be constructed of those who indicate they would be willing to serve as the Council representative to the EC if chosen. The Council then votes by e-mail ballot, with the candidate who gets the most votes on that being chosen to serve on the Executive Committee.

The five Councilors who are in the first year of their Council terms and therefore potential candidates for the EC representative position are:

Joan Alexander
Shuyi Chen
Mark DeMaria
Mike Henry
Andrea Lang

We do not ask them to announce at this meeting if they would be willing to be considered for this service, but instead, I will reach out to each of them in October to chat about the time commitment involved, etc., and give them a chance to decide if they want to be on the ballot.

I have included all this here as a discussion item because this will only be the second time we have handled the selection this way, and if any of you want to suggest modifications to the procedure, this would be the time to do so.

TAB 10.0
Concerns about Corporate Sponsorships

In the past few months, we have had issues raised independently by two AMS members on our acceptance of corporate support from companies that provide products for the Department of Defense. You are all familiar with the first one, a letter to the editor for BAMS from Alan Robock. His letter and the draft response developed by the Executive Committee were provided to the Council earlier and are included here as Attachment A. The second case is an e-mail from Hrag Najarian, a graduate research assistant at the University of Oklahoma, raising similar concerns, and that is provided as Attachment B. I informed both Alan and Hrag that their letters would be going to the Council at this meeting, and both were pleased to have their concerns reach you.

As I noted to the Council earlier, I feel it is our obligation to publish any reasonable letter to the editor that comes to BAMS, so I feel we must publish the letter from Alan soon after this meeting. It is up to all of you what sort of response might be published with it (if any). I think a response from the Council to Alan directly coming out of this discussion, separate from what is published, might also be appropriate. I similarly feel that the Council should provide a response to Hrag.

Action: Decide on responses to the letters by Robock and Najarian.

TAB 10.0
Attachment A

Letter

June 13, 2021

The Editor
Bulletin of the American Meteorological Society

To the Editor:

The goal of the American Meteorological Society (AMS) Policy Program is “to help the nation, and the world, avoid risks and realize opportunities associated with the Earth system.” Yet the AMS has Lockheed Martin Corporation as a corporate sponsor and their logo appears at the bottom of many AMS webpages, including the home page. The greatest risk the Earth system faces is nuclear war, and Lockheed Martin is one of the major U.S. defense contractors working on nuclear weapons. In 2020, Lockheed Martin received \$2,050,000,000 in contracts to work on the Trident III ICBM land-based nuclear missiles and the Trident nuclear submarines (ICAN, 2021). The approximately \$100,000 per year AMS receives from Lockheed Martin per year is less than 0.005% of the money they receive to enhance and support weapons, that, if ever used, would produce catastrophic global climate change and impacts on the world food supply (e.g., Robock and Toon, 2010; Coupe et al., 2019; and see all our publications and work on this topic at <http://climate.envsci.rutgers.edu/nuclear/>). And in 2019, Lockheed Martin gave between \$100,000 and \$249,999 to the Atlantic Council, an American think tank that advocates for more nuclear weapons (ICAN, 2021).

In 2015 I received the AMS Jule G. Charney Medal, “For fundamental contributions toward understanding the climatic effects of stratospheric aerosols from volcanoes and other potential sources, and the role of soil moisture in climate.” Those other “potential sources” included smoke from fires that would be ignited by nuclear weapons, and I spend much of my research and public advocacy to continue to warn the world about nuclear winter, the same work that AMS endorsed with the Charney Medal. Having the AMS being complicit in this Lockheed Martin greenwashing, which makes them look good by banking on our good name, is, in my opinion, a disgrace. I hereby recommend that AMS cease to accept funds from Lockheed, so as to not unwittingly be part of the military-industrial complex that President Eisenhower warned us about in his farewell address. This would emulate the American Geophysical Union, which ceased to accept funds from Exxon several years ago because of their disinformation campaign about global warming. Yes, Lockheed Martin builds satellites that provide Earth observations, and yes, the money Lockheed Martin gives to AMS supports valuable AMS programs, but what is the message we send by accepting money from them? AMS should be better than that, and live up to our pledge “to help the nation, and the world, avoid risks.”

Sincerely,

Alan Robock
Department of Environmental Sciences
14 College Farm Road
Rutgers University
New Brunswick, NJ 08901
robock@envsci.rutgers.edu

References:

Coupe, J., C. G. Bardeen, A. Robock, and O. B. Toon, 2019: Nuclear winter responses to global nuclear war in the Whole Atmosphere Community Climate Model Version 4 and the Goddard Institute for Space Studies ModelE. *J. Geophys. Res. Atmos.*, **124**, 8522-8543, doi:10.1029/2019JD030509.

ICAN (International Campaign to Abolish Nuclear Weapons), 2020: *Complicit: 2020 Global Nuclear Weapons Spending*, June, 2021, (ICAN, Geneva, Switzerland), available at https://d3n8a8pro7vhmx.cloudfront.net/ican/pages/2161/attachments/original/1622825593/Spending_Report_Web.pdf

Robock, A., and O. B. Toon, 2010: Local nuclear war, global suffering. *Scientific American*, **302**, 74-81.

Draft Response prepared by the EC

Response:

The mission of the AMS is enabling the advancement of the atmospheric and related sciences, technologies, applications, and services for the benefit of humanity. We translate this mission into action through AMS programs and these benefit greatly from both internally-generated funds such as publications and meetings support and external funds.

The AMS only accepts external funding, whether it be corporate support, federal grants, foundation support, or any other source, that is aligned with our mission and with the Society's integrity and reputation. AMS corporate partners recognize that Society programs make the entire weather, water, and climate enterprise stronger and that they are willing to support AMS programs and initiatives to help ensure their success.

A major area of corporate support is in the AMS scholarship and fellowship program, and over the years, more than 1300 students have benefitted from scholarships or fellowships provided by corporate funding. That support helped bring the students to an annual meeting in addition to its direct stipend to the student, and we know this experience is an especially enriching one for students. Corporate sponsorships provided for AMS meetings allow for invaluable networking opportunities for the students and help expand the offerings of the meeting in numerous ways that ensure a more successful and engaging meeting for all those participating.

Both the AMS Policy Program and Education Program have also benefitted from corporate support over the years. The Policy Program, in particular, depends on corporate support to help underwrite policy study activities and having this corporate support augment federal agency funding for these studies is a great example of a public-private partnership made possible through the Society. The corporations providing support do not have control over the use of those funds, so there is no conflict or bias introduced in the process. In the AMS Education Program, corporate support has been instrumental in several aspect of the training and professional development activities the Society provides for K-12 teachers nationwide. This includes the creation of curriculum materials for that training as well as providing travel support

for teachers to take advantage of workshops administered by AMS.

AMS is particularly proud of the long-standing support provided by the Lockheed Martin Corporation as a Corporate Patron of AMS. For more than a dozen years, Lockheed Martin support has gone toward all components discussed above, with many undergraduate and graduate students receiving scholarships or fellowships and travel funding, enhanced programs at various scientific conferences and meetings, significant support for Policy Program studies, and support for K-12 teacher professional development. As Prof. Robock has noted, Lockheed Martin has divisions that provide critical support to the atmospheric and related sciences, primarily through space-based observation platforms, and it is those divisions of the company that provide the funding for important Society programs.

AMS Executive Committee

TAB 10.0
Attachment B

From: Najarian, Hrag <hrag.najarian@ou.edu>
Sent: Thursday, August 26, 2021 12:46 PM
To: kseitter@ametsoc.org
Cc: Melissa.Burt@colostate.edu
Subject: AMS's Problematic Relationship with "Defense" Contractors

Hello Dr. Keith Seitter,

Hope you and your family are staying safe and healthy during these times.

We have never met so please let me introduce myself. My name is Hrag Najarian, and I am a Graduate Research Assistant at the University of Oklahoma. I also have been an AMS student conference volunteer since AMS 2019, and I am involved in DEI efforts at our school as well as in the Geosciences as a whole.

I spoke with Dr. Melissa Burt and she had suggested me to reach out to you for guidance and thoughts on what can be done on the matter I put forth. I don't know how much she had expanded on our conversation to you, but I will reiterate my points to fill you in on any details she was not able to get to.

I am of Lebanese-Armenian descent, and I don't see myself or other Middle Easterns in cogs within any system here in America, let alone a predominately white dominated field such as Meteorology. This is an isolating feeling; however, it also allows me to provide a perspective that has previously not been critically thought of before. This might be why the problematic issue I'm about to bring up is something that has gone on without any feedback so please allow me to elaborate. In the last couple of months, I have come to realize that weapons manufacturers, or as they like to be called "defense" contractors, such as Lockheed Martin, Raytheon, and much more, are large corporate sponsors/doners to the AMS. This might not seem problematic, however, as someone who is from the Middle East (Beirut, Lebanon) and has directly been displaced due to war in our region, I can only hope my perspective can shed some light on why this relationship is problematic and **needs** to be rethought.

So, how does one go about confronting this problematic nature that the American Meteorological Society is proudly sponsored by Lockheed Martin and other weapon manufacturers?

As you might already know, Meteorology was founded through war, but is it necessary to continue this close relationship?

This issue cuts close to home for me. We fled Beirut, Lebanon after Israeli forces occupied Beirut in the 2000's. Thankfully we sought refuge in the rural regions of Lebanon, but after returning, we found our apartment building in near ruins. We fled to America 3 days later with barely anything.

But before I continue, let me be clear: I don't think anyone at AMS is pro-war. However, taking money from companies that have made billions through arms sales perpetuates violence by validating and glorifying entities that continue to sell weapons used to kill doesn't sound anti-war to me.

Lockheed Martin (LH) is a weapons manufacturer that makes billions in profits from conflicts that results in the deaths of innocent people.

They have been supplying weapons to Israel since 1981 and have since then used these weapons to kill thousands of innocent civilians or leave their lives in ruins.

LH also supplies Saudi Arabia and Egypt with weapons that are currently being used in Yemen, aiding in the blockade, which has been nothing but a humanitarian crisis. Innocent people, including children, are dying from starvation or preventable diseases every day because of this blockade.

LH also supply weapons to Turkey, a country that has continually been supplying Azerbaijan with said weapons that are being used at this very moment to destroy and power grab indigenous Armenian lands while killing Armenian civilians and destroying ancient historical lands.

The list of atrocities committed with the aid of weapons produced by LH and others are endless, and this is obviously not a new problem.

LH has been a proud sponsor of AMS for some time, which tells me that either AMS is well aware of this — yet it continues to take money — or its leaders simply aren't aware.

I choose to believe the latter.

So, what can AMS do?

Disinvest and prohibit weapon manufacturers from sponsoring the AMS conference immediately. Their money quite literally has innocent people's blood on it.

This goes for not just Lockheed's money, but for L3harris, Northrop Grumman, Ball Aerospace, Raytheon, and maybe even more...

These companies hide behind weapon deals that are used for "defense" purposes. but it is anything but defense when death tolls are nearly 10+ times greater on the other end and littered in innocent civilian deaths.

Some would argue that these companies are only the suppliers, while the governments are the true criminals. To that I ask: Why would any truly "innocent" company continue to sell weapons to governments that have shown no remorse for their historical targeting of innocent civilians?

Also, when did killing hostages become acceptable if the "bad guys" also get killed? There is a clear monetary gain in perpetuating these wars, and these weapon manufacturers are not a part of the solution to end these wars.

I absolutely love the AMS as it has opened so many opportunities for me. I am even a volunteer for the student conference to make future generations' experiences better than the one I have had, but I cannot stand idly by anymore. My moral compass won't allow it.

It's time to part ways with meteorology's historical connections with war and create a new path forward — a path that emphasizes the beauty of the science we study and the communication of information that is vital to public safety.

Like I have mentioned before, this is personal for me, and it also puts me in a vulnerable position as these companies are seemingly funneling enormous amounts of money into this conference, all while "poaching" incredibly talented meteorologists into their problematic business of supplying weapons to warmongers. My stance is firm on these weapon manufacturers to completely disinvest from AMS. They simply do not belong.

With that being said, I wanted to reach out and hear from you on what path is best to move this agenda forward. You undoubtedly have experiences within AMS that are crucial in understanding what can realistically be accomplished. Under the AMS Code of Conduct, the first General Conduct listed is "Members shall carry out their activities with integrity and the **highest ethical standards**." This spoke to me and is why I am writing to you. Like I said before, my moral compass is guiding me, and I cannot continue to ignore it, I hope it speaks to you as well.

I personally do not know the full scope of these sponsorships so I cannot formulate a remedy that would make easing off these sponsorships easier. However, I believe getting more transparent information on these sponsorships might be a great first step.

Thank you for listening and I hope to work with you and others that are passionate on this topic to create the positive and lasting change that is needed in our community. Please feel free to message me with any ideas or thoughts you might have on this issue.

Take care,
Hrag

Hrag Najarian (he/him/his)
Research Assistant, School of Meteorology
University of Oklahoma
120 David L Boren Blvd. #5409
Norman, OK 73072

TAB 11.0
Code of Conduct Issue

A Code of Conduct complaint was filed against a member of our community in mid-July. Following the formal procedures that have been approved by the Council, Stephanie carried out a full fact-finding investigation and based on that report I made a finding that a violation of the Code of Conduct occurred. In the interest of confidentiality, we are not providing the full report here, but we will brief the Council in the meeting and seek guidance on the consequences that should be imposed based on the facts and the finding.

TAB 12.1
2021 Specialty Meetings

AMS Washington Forum

26–29 April 2021, Virtual Meeting

34th Conference on Hurricanes and Tropical Meteorology

10–14 May 2021, Virtual Meeting

13th Conference on Fire and Forest Meteorology

11–13 May 2021, Virtual Meeting

16th Conference on Polar Meteorology and Oceanography

1–4 June 2021, Virtual Meeting

34th Conference on Agricultural and Forest Meteorology

Fifth Conference on Atmospheric Biogeosciences

21–23 June 2021, Virtual Meeting

Summer Community Meeting

21–23 September 2021, Virtual Meeting

TAB 12.2

2022 Annual Meeting

The 102nd Annual Meeting will be 23–27 January 2022, in the George R. Brown Convention Center, Houston, TX. Mike Farrar is working with Gina Eosco and John Lanicci. The theme is *“Environmental Security: Weather, Water and Climate for a more Secure World.”*

The meeting will be executed as a fully hybrid meeting, with all scientific sessions being live-streamed and provisions for speakers to present remotely in all sessions.

Here is the preliminary listing of participating Conferences and Symposia:

- 21st Annual Student Conference
- 10th AMS Conference for Early Career Professionals
- Presidential Forum
- Richard H. Johnson Symposium
- Kevin Trenberth Symposium
- 38th Conference on Environmental Information Processing Technologies
- 36th Conference on Hydrology
- 35th Conference on Climate Variability and Change
- 31st Conference on Education
- 31st Conference on Weather Analysis and Forecasting (WAF)/27th Conference on Numerical Weather Prediction (NWP)
- 27th Conference on Probability and Statistics
- 26th Conference on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS)
- 25th Conference of Atmospheric Science Librarians International
- 24th Conference on Atmospheric Chemistry
- 23rd Conference on Planned and Inadvertent Weather Modification
- 22nd Symposium on Meteorological Observation and Instrumentation
- 22nd Conference on Aviation, Range, and Aerospace Meteorology
- 22nd Joint Conference on the Applications of Air Pollution Meteorology with the A&WMA
- 21st Conference on Artificial Intelligence for Environmental Science
- 21st Conference on Middle Atmosphere
- 20th Symposium on the Coastal Environment
- 20th History Symposium
- 19th Conference on Space Weather
- 18th Annual Symposium on New Generation Operational Environmental Satellite Systems
- 17th Symposium on Societal Applications: Policy, Research and Practice
- 14th Symposium on Aerosol–Cloud–Climate Interactions
- 13th Conference on Weather, Climate, and the New Energy Economy
- 13th Conference on Environment and Health
- 12th Conference on Transition of Research to Operations
- 12th Symposium on Advances in Modeling and Analysis Using Python

- 10th Symposium on the Weather, Water, and Climate Enterprise
- 10th Symposium on Building a Weather-Ready Nation: Enhancing Our Nation's Readiness, Responsiveness, and Resilience to High Impact Weather Events
- 10th AMS Symposium on the Joint Center for Satellite Data Assimilation (JCSDA)
- 10th Symposium on the Madden-Julian Oscillation and Sub-Seasonal Monsoon Variability
- Eighth Symposium on High Performance Computing for Weather, Water, and Climate
- Seventh Symposium on US-International Partnerships
- Sixth Symposium on Multiscale Predictability: Data-model Integration and Uncertainty Quantification for Climate and Earth System Monitoring and Prediction
- Fifth Conference on Earth Observing SmallSats
- Third Symposium on Diversity, Equity, and Inclusion
- Major Weather Events and Impacts of 2021

TAB 12.3
2022 Specialty Meetings

13th International Conference on Southern Hemisphere Meteorology and Oceanography
8–12 February 2022, University of Canterbury, Christchurch, New Zealand/Aotearoa

AMS Washington Forum
25–28 April 2022 Washington, DC

35th Conference on Hurricanes and Tropical Meteorology
9–13 May 2022, New Orleans, LA

49th Conference on Broadcast Meteorology
Sixth Conference on Weather Warnings and Communication
14–17 June 2022, Milwaukee, WI

20th Conference on Mountain Meteorology
27 June – 1 July, 2022 Park City, Utah

23rd Conference on Atmospheric and Oceanic Fluid Dynamics
June 2022, Rocky Mountains

24th Symposium on Boundary Layers and Turbulence
11–15 July 2022, Sibenik, Croatia

Summer Community Meeting
10–12 August 2022, Boulder, CO

Collective Madison Meeting:
25th Conference on Satellite Meteorology, Oceanography, and Climatology
17th Conference on Polar Meteorology and Oceanography
16th Conference on Cloud Physics
16th Conference on Atmospheric Radiation.
08–12 August, Madison, WI

Biennial Heads and Chairs Meeting
13–14 October 2022, Boulder, CO

30th Conference on Severe Local Storms
24–28 October 2022, Santa Fe, NM

TAB 12.4 2023 Annual Meeting

The 103rd Annual Meeting will be 8–12 January 2023, in the Colorado Convention Center, Denver, CO. Rich Clark is working with Melissa Burt and Scott Mackaro as his Overall Planning Committee Chairs as well as Yaireska Colladovega, Anke Kamrath, Gaike Kerr, Amy McGovern, Shang-Ping Xie as Overall Planning Committee Members.

Attachment A is the background document for the draft theme, “*Data: Driving Science. Informing Decisions. Enriching Humanity.*” It will be shared with the STAC commission as the various boards and committees decide whether to be part of the list of conferences and symposia that are part of the 2023 meeting.

Here is the preliminary listing of participating conferences and symposia:

- Presidential Forum
- 39th Conference on Environmental Information Processing Technologies
- 37th Conference on Hydrology
- 36th Conference on Climate Variability and Change
- 32nd Conference on Education
- 27th Conference on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS)
- 26th Conference on Satellite Meteorology, Oceanography, and Climatology
- 26th Conference of Atmospheric Science Librarians International
- 25th Conference on Atmospheric Chemistry
- 22nd Annual Student Conference
- 22nd Conference on Air-Sea Interaction
- 23rd Symposium on Meteorological Observation and Instrumentation
- 23rd Conference on Aviation, Range, and Aerospace Meteorology
- 22nd Conference on Artificial Intelligence for Environmental Science
- 21st Symposium on the Coastal Environment
- 21st History Symposium
- 20th Conference on Space Weather
- 19th Annual Symposium on New Generation Operational Environmental Satellite Systems
- 18th Symposium on Societal Applications: Policy, Research and Practice
- 15th Symposium on Aerosol–Cloud–Climate Interactions
- 14th Conference on Weather, Climate, and the New Energy Economy
- 14th Conference on Environment and Health
- 13th Conference on Transition of Research to Operations
- 13th Symposium on Advances in Modeling and Analysis Using Python
- 12th Symposium on Lidar Atmospheric Applications
- 11th AMS Conference for Early Career Professionals
- 11th Conference on the Meteorological Application of Lightning Data
- 11th Symposium on the Weather, Water, and Climate Enterprise
- 11th Symposium on Building a Weather-Ready Nation: Enhancing Our Nation’s Readiness, Responsiveness, and Resilience to High Impact Weather Events

- 11th AMS Symposium on the Joint Center for Satellite Data Assimilation (JCSDA)
- 11th Symposium on the Madden-Julian Oscillation and Sub-Seasonal Monsoon Variability
- Ninth Symposium on High Performance Computing for Weather, Water, and Climate
- Eighth Symposium on US-International Partnerships
- Sixth Conference on Earth Observing SmallSats
- Fifth Special Symposium on Tropical Meteorology and Tropical Cyclones
- Fourth Symposium on Diversity, Equity, and Inclusion
- First Symposium on Earth Prediction Innovation and Community Modeling
- Major Weather Events and Impacts of 2022

TAB 12.4
Attachment A

DRAFT THEME FOR THE 2023 ANNUAL MEETING

Data: Driving Science. Informing Decisions. Enriching Humanity.

We observe, create, measure, simulate, collect, and process data at a prodigious rate, propelled by modern digital technology, and use it to create new knowledge and insights; inform and validate models and hypotheses; guide policies and decisions; and advance the scientific, environmental, and societal dimensions of the weather, water, and climate enterprise (WWC). This theme uses data as the locus for interlinking heterogeneous disciplines across the WWC enterprise along braids of commonality to propel new science, expand and empower the stakeholder topography across all sectors, and ameliorate bias and socioeconomic inequity, through the suffusion of both theory and data centric approaches.

1. Data driving scientific inquiry: For centuries, data, mostly in the form of observations, have been used to test theories and validate hypotheses, but with modern digital sensors, Internet of Things (IoT) sensors, active and passive in situ and remote sensing technologies, and with the explosion of computing technologies there is an emergence of new insights inviting further inquiry and spawning innovation and discovery. The spectrum of data is diverse and includes the full suite of observations, environmental predictions generated by numerical models, data products derived from integration and assimilation of observational and model-generated sources, empirical products based on algorithms, and AI and machine learning innovations that promise to revolutionize inquiry and discovery in the atmospheric and related sciences. Full, open, and timely access to data is critical to the advancement of atmospheric and related sciences, the provision of products and services for the benefit of society, and the promotion of commerce and private-sector activities. Adopting policies for free and open access to data could accelerate scientific discoveries, broaden, and enhance participation in scientific enterprise, promote entrepreneurship, and benefit society.

2. Data transforming education and training, and bridging disciplines: Technology, computation, and/or big data can be leveraged to develop, implement, and analyze educational interventions designed to prepare a diverse and equitable workforce, including exploring how students learn to integrate knowledge and engage in transdisciplinary research to solve complex problems. Computing, sensing (e.g., active/passive remote, IoT, digital sensors, AI/ML), data storage, data access, communication, and hardware technologies continue to change our lives and work environments. These new technologies are changing the way we learn and do science, math, and engineering, and it is paramount that we not only know how to navigate these changes, but that we can ensure equitable access, engagement, and participation of all groups in the STEM workforce. To prepare scientists (environmental, data, social), technologists, and practitioners, innovative educational paradigms must be able to harness the technologies that produce unprecedented volumes of data and vast interconnectivity capabilities, such as data provided by ubiquitous sensing and the IoT. Environmental data in their myriad of formats (numerical, imagery, audio, visualizations, and others) are available at ever greater speeds, propelling innovations such as artificial intelligence and machine learning and demanding that the growing influence of data-driven science be explicitly subsumed into the new curriculum and reflected in AMS guidelines and government service requirements.

3. Data advancing racial and socioeconomic justice, equity, and visibility: Data are the foundation of evidence-based solutions needed to thwart the pernicious effects of systemic barriers to justice and equity across the racial and socioeconomic landscape. There is already a data-based awareness (e.g., AIP Statistical Research Center) that the geosciences community suffers from the lack of racial and ethnic diversity at all levels of higher education and in the workforce. The AMS is committed to, and benefits from, the full and equitable participation of a diverse and inclusive community in its membership, in its activities, and in the audiences that it serves. The advancement of the AMS mission is dependent on its ability to have a professional membership that is fully representative of societal demographics. Data are at the core of the intervention that can make this happen. Data can be used to identify unconscious and explicit biases, which can taint policies, programs, practices, perspectives, as well as the increasing number of autonomous options that play into informing decisions. Passive commitment is not enough! The Covid-19 pandemic has exposed the disproportionate impact on marginalized and minoritized communities, which is presents our community and beyond the opportunity for transformative change. Data/information can be used more effectively to deliver a fundamental shift in the way we work internally within our community and how we use environmental data to build a more just, equitable, inclusive, and accessible framework for outreach to the global community – WWC has a global reach! Open access to science must be equitable if we are to improve how we are treating the marginalized communities. We must use data to be vigilant of biases, exclusion, reinforcing dominance, and further entrenching existing inequalities.

4. Data shaping environmental attitude and behavior: We can use the deluge of Earth observations, contextual information provided by social media, unprecedented dissemination mechanisms, and high-performance computing platforms to change the way people and businesses view WWC data and experience the force-multiplying effects it has on improving life and weather sensitive decision making ([Conference summary statement.pdf \(wmo.int\)](#)). Using data to develop an impact-oriented strategy by identifying the human activities with the strongest environmental impact, where knowledge from the natural and social sciences is integrated, more adequately reflecting the nature of most environmental problems, and enabling evidence-based intervention towards solutions. Shaping new environmental attitude and behavior requires expertise from across our community and beyond, providing rich opportunities for cross-disciplinary collaboration in research, education, policy, and practice from physical and data sciences to the social sciences, technology, and engineering.

5. Data integrating public-private-academic partnerships: Partnerships can often accomplish what single entities cannot do alone. Actionable weather, water, and climate information are key to developing successful strategies to address the challenges facing society today; to develop and deliver them cost-effectively requires creative partnerships that draw on the strengths of both the public and private sectors. Public-private alliances involving the free and unrestricted exchange of data are paramount to filling gaps in the global-data coverage and delivering critical services. Environmental data can be the link for an integrated value chain connecting public and private partners while spawning the creation of proprietary products and services for economic sustainability (<https://meetings.wmo.int/WMO-Data-Conference/SitePages/Outcome%20Material.aspx>).

6. Data powering economic growth: Data fuel innovation and bring value and competitive advantage. The organization of meteorology increasingly reflects a political—economic approach that treats science as an economic entity in which market-based criteria can be used to allocate scientific resources. The emergence of weather derivatives markets — financial products

that enable trading on weather indices — have reshaped how some businesses are interacting with meteorologists; forecasting and weather modeling is being adopted within the private sector to enable product development and commercialization strategies. Space weather commerce is growing at a rapid rate and the benefits span nearly every sector from geo-location users to power grid systems and the national commercial airline fleet. There is a premise in business that "people don't simply buy products or services, they 'hire' them to make progress in specific circumstances." When data is the business, the most common circumstance people are hiring for is to inform decisions. More sophisticated users also use it to inform uncertainty and manage WWC-related risk. But data does not just fuel innovation, its often the backbone of many products and services that drive economic growth. Data fuels products, informs decisions, including uncertainty and risk, and when combined with application knowledge, can be the foundational product for the existence of an entire organization. Entire careers and organizations exist for this purpose. Ethical dissemination of data requires an understanding of its limitations, representativeness, access, biases, and equity.

Motivation for the theme on Data

Environmental Earth and space system data has one of the largest digital footprints and is a central component of scientific inquiry, but we have not yet collectively solved the problem of data access, discovery, and service. This theme will be the catalyst for a year-long inclusive and collaborative discourse on the challenges posed by the data deluge with a focus on how to stage environmental data to make it efficiently useful and accessible for the plethora of applications important to *driving science, informing decisions, and enriching humanity* within our community and beyond.

Data power hypothesis-driven science and are the substance of inductive, empirical investigation. In recent years, atmospheric, oceanic, climate, and hydrological data have come to be as much of an asset as any natural resource. Databases and their derivatives have become increasingly valuable commodities. As the value proposition of data has grown, nations of the world are revisiting arrangements to share data, improve data collection, drive research and innovation, stimulate two-way transfer of research [R] and operations [O] (R2O2R), support education and training, and economic growth. *Big Data* is revolutionizing knowledge production by enabling novel, highly efficient ways to conduct research. The field of *data science* is creating new techniques for extrapolating knowledge and emergent discovery from data. The *Open Data* movement, emerging from policy trends such as "Open Government and Open Science," encourages sharing data via digital infrastructures, which, in turn can serve as scaffolding for the development of artificial intelligence (AI) and machine learning (ML), and an incentive for more efficient processing, reuse, and knowledge creation.

The WWC research enterprise along with private and government sectors will lead the way in finding the acumen, resources, and technological prowess to effectively harness the data revolution to advance their imperatives, exploit emergent technologies, and pursue frontiers. Still, as a community we have the shared obligation to ensure that the next generation workforce is prepared for a world where data profoundly influences every facet of the enterprise. Academic curricula must evolve to accommodate a new balance between foundational underpinnings in science and mathematics, the breadth of technical skills, cross-disciplinarity and cross-cultural competencies, and the wherewithal to use data responsibly for the common good. Our imperative must be to ensure that data in all its forms, and the actions taken based on this data, are free of biases and fully accessible.

TAB 12.5
2024–2032 Annual Meetings

Here is the listing of the annual meeting locations for the out years:

28–31 January 2024 Baltimore Convention Center, Baltimore, MD (Signed)
12–16 January 2025 Morial Convention Center, New Orleans, LA (Signed)
25–29 January 2026 George R. Brown Convention Center, Houston, TX (Signed)
10–14 January 2027 Colorado Convention Center, Denver, CO (Signed)
30 January–2 February 2028 Baltimore Convention Center, Baltimore, MD (Signed)
7–11 January 2029 Morial Convention Center, New Orleans, LA (Signed)
27–31 January 2030 George R. Brown Convention Center, Houston, TX (Signed)
12–16 January 2031 Colorado Convention Center, Denver, CO (Signed)
1–4 February 2032 Baltimore Convention Center, Baltimore, MD (Signed)

TAB 13.1
Annual Meeting Oversight Committee

The current committee membership is:

Clark Evans, Chair, Univ of Wisconsin-Milwaukee (Term, 2022)
Rebecca Adams-Selin, Atmospheric and Environmental Research (Term 2024)
Andrea Bleistein, NOAA/National Weather Service (Term, 2023)
David Gochis, NCAR (Term, 2023)
Gaige Kerr, The Johns Hopkins University (Term, 2023)
John Knox, Univ. Georgia (Term, 2022)
Arlene Lang, Caribbean Meteorological Organization (Term 2024)
Scott Mackaro, Iteris - ClearAg (Term, 2022)
William Mahoney, NCAR (Term, 2023)
Elisa Murillo, Student Member, University of Oklahoma (Term, 2023)
Rich Clark, Ex Officio
Mike Farrar, Ex Officio

The report from the committee is provided as Attachment A. Since this is a committee of the Executive Committee, the EC will handle the appointment of new members and a new chair when they meet the day before the council meeting.

TAB 13.1 Attachment A

Annual Meeting Oversight Committee – 2021 Annual Report

Submitted by chair Clark Evans, September 2021

Committee Activities

The Annual Meeting Oversight Committee (AMOC) met virtually on 19 January 2021, after the virtual 2021/101st AMS Annual Meeting. Discussion topics included:

- The committee's terms of reference, specifically as it relates to the committee's size. We appreciate the AMS Council and its Executive Committee's approval to expand the committee's size so that its membership can better reflect the society's diversity.
- Progress on diversity, equity, and inclusion actions advanced by the committee in 2020.
- Collaboration between Annual Meeting planning committees and AMOC, specifically as it relates to AMOC membership on the Annual Meeting planning committees and to AMOC's role in assisting the Annual Meeting planning committees.
- A debrief from the virtual 2021/101st AMS Annual Meeting.
- Discussion on how to handle virtual meetings and virtual meeting elements in the future.
- A planning update for the 2022/102nd AMS Annual Meeting.
- An introduction to the draft theme of the 2023/103rd AMS Annual Meeting.

The committee has undertaken several major initiatives this year:

- Completed a review of the Best Practices and Recommendations document put together by 2021/101st AMS Annual Meeting Co-Chairs Tanja Fransen and Nate Johnson.
- Engaged in a discussion of Town Hall Meetings, including refining their definition and establishing a formal process for reviewing Town Hall Meeting proposals (led by a working group including Overall Planning Committee and AMOC members).
- Reviewed President-Elect Rich Clark's draft theme for the 103rd AMS Annual Meeting.
- Following from the Best Practices and Recommendations document review, provided feedback to AMS Meetings staff regarding proposed meeting terms and definitions.
- Provided feedback to meetings staff on virtual options for the 102nd AMS Annual Meeting.

Several AMOC members are engaged with working groups for the 102nd and 103rd AMS Annual Meeting: Andrea Bleistein (member, 102nd AMS Annual Meeting Overall Planning Committee), Ajay Raghavendra (review of 102nd AMS Annual Meeting session topics), David Gochis (review of 102nd AMS Annual Meeting Town Hall proposals), and Scott Mackaro (co-chair, 103rd AMS Annual Meeting).

Motivated by a desire to assist AMS Meetings staff and the Overall Planning Committee in their work and to build AMOC's institutional memory, engaging AMOC in Annual Meeting planning activities has been the primary focus of my two years as AMOC Chair. I am grateful for the willingness of each group to work with AMOC on these efforts and I hope that they have been successful for the society and its membership.

Requested Council/Executive Committee Action

None at this time.

New Chair Recommendation

I recommend that Dr. Rebecca (Becky) Adams-Selin succeed me as AMOC Chair. Dr. Adams-Selin has been one of the most active participants in AMOC discussions and reviews this year, successfully led the STAC-sponsored Weather Analysis and Forecasting Committee from 2018-21, co-chaired the 2017 Weather Analysis and Forecasting and Numerical Weather Prediction conferences held at the Seattle Annual Meeting, and has two years left on her AMOC term. I believe that she would be an excellent AMOC Chair.

New Member Recommendations

The committee recommends the following individuals for AMOC membership, listed in alphabetical order:

- [Gail Hartfield](#), Lead Forecaster with the National Weather Service in Raleigh, NC.
- [Nate Johnson](#), Director of Weather Operations for NBCUniversal Local.
- [Dr. Cassandra Shivers-Williams](#), Social Scientist with the Univ. of Oklahoma/Cooperative Institute for Mesoscale Meteorological Studies.

TAB 13.2
Investments Committee

The current committee membership is:

Paul Try, Chair, Science and Technology Corp. (Term, 2024)
Bob Brammer, Brammer Technology (Term 2025)
Matt Coleman, Nephila Advisors LLC (Term, 2023)
Joshua Darr, Guy Carpenter (Term 2025)
John Snow, The University of Oklahoma (Term, 2022)
Mike Farrar, Ex Officio, President
Yvette P. Richardson, Ex Officio, Planning Commissioner
Bruce Telfeyan, Ex Officio, Secretary-Treasurer
Rich Spaulding, Non-voting Ex Officio, Chair of Finance Committee

The Investments Committee is charged with providing guidance to the Executive Committee on the Society's reserves portfolio. We do not have a report from the committee for this meeting.

TAB 13.3
Finance Committee

The current committee membership is:

Richard Spaulding, Chair, Earth Networks (Term, 2024)
Stephen Bennett, Demex Corp (Term 2024)
Pam Emch, Emch and Assoc. (Term 2024)
John Potts, NOAA/NWS (Term, 2023)
Mike Farrar, Ex Officio, AMS President
Bruce Telfeyan, Ex Officio, AMS Secretary-Treasurer
Paul Try, Ex Officio, Chair of Investments Committee

The Finance Committee report is provided under TAB 3.2.

TAB 13.4
Nominating Committee

The current committee membership is:

Sue Ellen Haupt (chair) (Term 2022)
Ray Ban (chair-elect) (Term 2023)
Carol Ann Clayson (Term 2022)
Walt Dabberdt (Term 2022)
Michael C. Morgan (Term 2023)
Chidong Zhang (Term 2023)
Andrea Bleistein (Term 2024)
John Cortinas (Term 2024)
Bill Gail (Term 2024)

We do not get a report from the Nominating Committee for this meeting (their only report is to the EC in the spring with the recommendation for the ballot slate). We include this here for your information.

TAB 14.1 Departmental and Staff Structure

AMS Organizational Structure with annotations — As of September 2021

Keith Seitter	Executive Director	
Stephanie Armstrong	Associate Executive Director	Head of Development and Extramural Funding. Serves as part of the leadership team for AMS.
Bill Hooke	Associate Executive Director	Senior Policy Fellow. Serves as part of the leadership team for AMS.
Brian Papa	Associate Executive Director	Serves in a role similar to chief operations officer. Head of Project Management, Reporting & Analytics, Marketing & Design. Serves as part of the leadership team for AMS.

Note: A number of the people listed below are part-time, so the total number of FTEs is lower than the number of individuals listed here.

MEMBER SERVICES DEPARTMENT		
Beth Farley	Director of Member Services	Oversees all aspects of member services. Serves as part of the leadership team for AMS.
Maria Sarantopoulos	Member Services Manager	Handle member services (applications, renewals, orders, recruitment, voting, etc.) and journals subscriptions (including nonmember institutional subscriptions) including licensing, billing, orders, and follows-up on claims. Handle recruitment of and interactions with Corporation and Institutional Members. Provide administrative support to the Council and for the awards process.
Katelyn Angland	Senior Member Services Coordinator	
[Open Position]	Member Services Coordinator	

COMMUNITY ENGAGEMENT DEPARTMENT		
Claudia Gorski	Director of Community Engagement	Oversees community engagement activities. Serves as part of the leadership team for AMS.
Erica Callahan	Member and Volunteer Engagement Manager	Provides support to volunteer boards and committees and member engagement activities.
Tiernan Doyle	Public Outreach Manager	Responsible for public outreach and engagement activities including Weather Band and TEX.
Eric Wilke	Online Community Engagement Coordinator	Provide staff support for many of the volunteer committees across the Society. Also provide staff support for the AMS Community and Weather Band Community.

COMMUNITY ENGAGEMENT DEPARTMENT		
Kelly Savoie	Director of Career Development	Oversees professional development activities and other programs aimed at career success such as certification programs, continuing professional development programs, early career programs, job announcements, and career advice for students. Serves as part of the leadership team for AMS.
Rex Horner	Career Services Coordinator	Provides day to day staff support for certification programs and other activities in the department.

PUBLICATIONS DEPARTMENT		
Gwendolyn Whittaker	Director of Publications	Oversees all aspects of the journals, monographs, books, and <i>Glossary</i> programs. Serves as part of the leadership team for AMS.

Mike Friedman	Senior Manager for Publishing Operations	Works with production and online vendors, implements new production processes, monitors best practices in journal publication, and adjusts AMS practices accordingly.
Jessica LaPointe	Managing Copy Editor	Manages copy editing staff that supports the journals, monographs, <i>Glossary</i> , and <i>BAMS</i> . Helps set and maintain AMS house style (working with managing technical editor). Serves as a copy editor as well.
Andrea Schein	Senior Copy Editors	Copy edit manuscripts and other content to prepare it for publication the journals, monographs, <i>Glossary</i> , and <i>BAMS</i> .
Kristin Gilbert		
Nicole Rietmann		
Ramesh Pillay		
Mark Fernau	Managing Technical Editor	Manages the technical editing staff, that supports the journals, monographs, <i>Glossary</i> , and <i>BAMS</i> . Helps set and maintain AMS house style (working with managing copy editor). Serves as a technical editor as well.
Hollis Baguzkas	Senior Technical Editors	Review all material that has been copy edited to ensure the science has not been changed in the editorial process. Review figures and mathematical content to ensure proper presentation in the published product.
Rick Brandt		
Peer Review Support Team		
Tiffany Bischoff	Peer Review Support Coordinator	Provide staff support for the volunteer journal editors, monograph editors, and BAMS volunteer editorial board, guiding manuscripts through the peer-review process.
Andrea Herbst	Peer Review Support Coordinator	
Felicia Gullotta	Senior Peer Review Support Associate	
Hayley Charney	Peer Review Support Associate	
Christine Ziebarth	Peer Review Support Associate	
Erin Gumble	Senior Peer Review Support Assistant	
Al Russo	Peer Review Support Assistant	
[Open Position]	Peer Review Support Assistant	
Production Team		
Sheila Gafvert	Production Manager	Provides direct supervision of production team, as well as being a team member. Serves as a production team member as well.
Liz Wright	Production Team Coordinator	Carry out manuscript technical checks prior to the manuscript entering the peer-review process and on resubmission after revisions coming from peer review, secure copyright transfers, ensure accepted manuscripts are ready to enter the production process.
Danielle Joyce	Production Assistant	
Walton Rea	Production Assistant	
[Open Position]	Production Assistant	
BAMS (Editor-in-Chief Jeff Rosenfeld has been on extended medical leave.)		
Chris Cappella	Senior Editorial Manager	Responsible for content creation and the adaptation of technical articles for a broad base of scientifically literate readers. Controls workflow for print and online publication in coordination with <i>BAMS'</i> Managing Editor; directs article promotion online; improves and expands science communication.
Ken Heideman	Senior Editor	Works with Editor-in-Chief to create content for BAMS, including working directly with authors to create the abridged versions of articles for the new BAMS.
[Open Position]	Associate Editor	Focuses on creating content for BAMS, AMS Weather Band enthusiast initiative, social media, and related communications. The associate editor

		works both independently and in continual teamwork as part of the Bulletin of the American Meteorological Society (BAMS) staff.
Bryan Hanssen	Managing Editor	Provides staff management for the BAMS team and manages production of the publication from cover to cover. Serves as primary liaison with press vendors for both print and digital BAMS.
Denise Moy	BAMS Senior Production Editor	Does layout of articles and some other section of BAMS as needed under the guidance of the Managing Editor.
Rachel Thomas-Medwid	BAMS News Editor/Media Relations	Collects and edits content for "45 Beacon" section of BAMS, including columns, news about our members, obituaries, book reviews, and other special materials. Provides media relations, including fielding questions from reporters on weather and climate related stories they are working on to connect them with experts in the community and for articles published in BAMS or the journals, Runs press room at the annual meeting.
Matthew Gillespie	BAMS News Editor & Social Media	Edits and lays out "45 Beacon" section and some other sections of BAMS. Manages the Society's social media streams, and supports media relations activities.

MEETINGS DEPARTMENT		
Jennifer Ives	Director of Meetings	Oversees the meetings and exhibit programs for both the annual and specialty meetings. Primary liaison between the AMS President, President-elect, and their overall planning committees on different stages of the annual meeting over the year. Serves as part of the leadership team for AMS.
Jennifer Rosen	Senior Exhibitor Manager	Oversees the main exhibit hall for the Annual Meeting as well as the Career Fair and Broadcast Conference, Radar Conference by: working with our decorating vendor to layout the floor plan; selling the space and managing the event from beginning through on-site; working with Accounting office on billing; and serving as a backup for travel for the meeting coordinators during years when travel is very busy. Oversees the layout and contract negotiations for the poster hall at both the annual meeting and specialty meetings. Also helps to manage the staff of Meetings and works on specialty meetings.
Meghan Summers	Senior Meetings Coordinator	Manage specialty meetings and the Annual meeting. Duties include: working closely with program chairs on the program development and assisting them throughout the planning process; participating in contract negotiations and evaluations with a variety of vendors for meetings; ensuring all logistical details including registration, room set-up, audio visual, transportation, housing, and food and beverage for meetings are planned effectively from the initial stages of meeting planning through on-site; and tracking budgets to ensure revenue and expenses are kept within established boundaries and reconcile event bills.
Marissa Welch	Senior Meetings Coordinator	
Serena Roche	Senior Meetings Coordinator	
Christine Card	Meetings Coordinator	
Cathryn Iannarilli	Meetings Coordinator	
Jessica Hanley	Meetings Coordinator	

EDUCATION DEPARTMENT		
Wendy Abshire	Director of Education	Oversees all aspects of program, partner engagement, and leads program fundraising activities. Serves as part of the leadership team for AMS.
Beth Mills	Associate Director	Grant proposal lead, curriculum author, and public support lead.
Bernard Blair	Associate Director for Business Operations	Lead publication vendor liaison, office management, and program technical operations.
Abigail Stimach	K-12 Program Administrator	Administers all K-12 teacher courses, DataStreme mentor network
Katie O'Neill	Education Content Specialist	Copy edits and serves curriculum, maintains undergraduate website operations, provides customer support.

Liz Baugher	Education Content Specialist	Content specialist precollege education, GIS & satellite focus. Project Atmosphere & social media lead.
Diem Tran	Administrator, Education Support Services	
Maude Mason	Grant Accountant	
Chad Kauffman	Contractor	Curriculum Development/DataStreme/Proj. Atmosphere Lead
Joe Smith	Contractor	Project Ocean co-director/USNA liaison rep, oceanography
Suzanna Ribblett	Contractor	Project Ocean assistant director, wetland ecology
Ed Hopkins	Contractor	Authors curriculum weekly content
Lindsey Systemann	Contractor	Graphic design
Elizabeth Day-Miller	Contractor	NOAA award external evaluator

POLICY DEPARTMENT		
Paul Higgins	Director of Policy	Oversees and leads all aspects of the program including raising revenue, managing personnel, and budget formulation and execution. Serves as part of the leadership team for AMS.
Bill Hooke	Associate Director, Senior Policy Fellow	Leads Summer Policy Colloquium, leads or participates in policy studies and other program initiatives. In Associate Executive Director role, represents AMS in service on external boards, committees, and advisory groups, as well as in other contexts. Serves as part of the leadership team for AMS.
Andreas Miller	Policy Fellow	Subject matter expert who contributes to all Policy Program initiatives and leads policy studies.
Emma Tipton	Associate for Policy, Communication, and Collaboration	Provides support for all Policy Program activities and leadership for particular studies.
Lauren White	Assistant for Policy, Communication, and Collaboration	Provides support for all Policy Program activities and leadership for particular studies.
Liz Baugher	Education Content Spec	Content specialist precollege education, GIS & satellite focus. Proj. Atmos & Social media lead.
Katie Sullivan	Intern	Conducts independent study of mutual interest (interaction of socio-economic status and climate change vulnerability) and contributes to Policy Program initiatives as is consistent with a role entirely focused on professional development.
Shuchi Talati, Michael Morgan, Aaron Pina, Mona Behl, Jamie Hawkins, Shawn Miller, Erica Grow, Kristen Averyt, Jeff Lazo, Jon Malay, Anita Gajdecki	Nonresident Fellows/Adjuncts	Subject matter experts who extend the capacity of the Policy Program but for whom AMS is not the primary affiliation. These are typically unpaid positions intended to promote collaboration.

DEVELOPMENT AND EXTRAMURAL FUNDING		
Stephanie Armstrong	Associate Executive Director, Head of	Oversees all aspects of development activities, including cultivating and maintaining donor relationships, procurement of major gifts, and the

	Development and Extramural Funding	implementation of annual giving campaigns. Seeks and secures sponsorship for AMS programs and meetings. In Associate Executive Director role, serves as staff focal point for all diversity, equity, and inclusion programs, and coordinate and lead efforts to ensure safe and welcoming venues for all AMS functions, including leading harassment response team. Serves as part of the leadership team for AMS.
Donna Fernandez	Development and Student Program Manager	Manages all aspects of the student programs including the application and selection process for the scholarship and fellowship, travel grant, and student assistant programs. Serves as the primary liaison between AMS and student recipients. Inputs all donations into donor tracking database, generates donor reports, and creates thank you letters to all donors.
Adam Kelly	Corporate Relations Manager	Provides support in seeking and securing corporate sponsorships and maintaining ongoing corporate relations, as well as providing support for the annual giving program (this position shared with Member Services).

The following departments and staff are matrixed across all departments.

DIVERSITY, EQUITY, AND INCLUSION		
Katy Putsavage	Director of DEI	Supports effort across all society programs (including staff activities) on diversity, equity, inclusion, belonging, and accessibility, and provides staff support for the Culture and Inclusion Cabinet. Serves as part of the leadership team for AMS.

Human Resources reports to Stephanie Armstrong, Associate Executive Director

HUMAN RESOURCES		
Emily DeLuca	HR Manager	Manages all aspects of HR programs for staff, coordinating as necessary with the Finance Department on payroll and benefits.

DIGITAL TECHNOLOGY AND PRODUCTS		
Brian Mardirosian	Director of Digital Products and Design	Leads roadmap of digital product ecosystem, works with program managers on implementation, interfaces with leadership team on goal metrics and subject matter expertise, manages priorities across digital products from enhancements, bug fixes, content, budgeting, scheduling, business needs, and workflows. Serves as part of the leadership team for AMS.
Eric Jespersen	Senior Developer	Develops customized applications as well as the connections between software platforms, especially the connections between our Netforum Association Management System and other applications and services.
Open Position	Front End Developer	Develops web interfaces that users interact with directly (as opposed to the “back end” processing that carries out functionality supporting applications).
Christine Kassas	Associate Software Specialist	Leads email query creation and custom reports from NetForum Association Management System, assists other staff in their querying needs. Tracks bugs and bug fixes on the NetForum.
Alycia Rogers	Helpdesk Associate	Provides hardware/software support for all staff. Supports webinars organized by committees and boards.
Carl Brooks	Contractor-Developer	Maintains specialized apps developed in support of AMS functions and works toward migrating those functions to be carried out by the Netforum Association Management System.
Chris Paggliccia	Contractor-Network Administrator	Maintains network and IT infrastructure in terms of both hardware and software. Manages security systems and backup systems.

Project Management, Reporting & Analytics, and Marketing & Design report to Brian Papa, Associate Executive Director

PROJECT MANAGEMENT, REPORTING & ANALYTICS		
Rebecca Perriello	Project Manager	Provides support on project management for program implementation across AMS. Assists with strategic planning and annual project resource planning.
Sharon Kristovich	Reporting and Analytics Manager	Conducts surveys, focus groups, analyzes Google Analytics, and other usage data for feedback into product and design decisions.

MARKETING AND DESIGN		
Brandon Crose	Senior Creative Manager	Defines and executes the creative vision for Marketing and Design campaigns. Responsible for developing compelling visual and audio narratives. Along with managing, the SCM also plays a major part in writing for campaigns and marketing collateral. Works closely with the Associate Executive Director, Senior Operations Manager, and other stakeholders to define the upcoming priorities for Marketing and Design and long-term plans for the group.
Melissa Fernau	Senior Operations Manager	Manages the overall day-to-day operations within the M&D group to ensure individual tasks are tracked, assigned, and completed in a timely manner. This position also fills a project management role for marketing projects and campaigns in collaboration with other departments or volunteer groups. Works to develop project plans in collaboration with stakeholders and the Senior Creative Manager. Works with the Associate Executive Director, Senior Creative Manager, and other stakeholders to define the upcoming priorities for M&D and long-term plans for the group.
Sang Lee	Visual Design Manager	Responsible for crafting and executing the visual and experiential components of M&D projects. Works closely with stakeholders to ensure that a project's visual and UX/UI elements are in line with overarching project goals and strategy.
Kristen Knight	Social Media Manager	Leads content strategy and updating on social media platforms, routine content creation for email and web channels.

FINANCE AND ACCOUNTING		
Joe Boyd	Chief Financial Officer	Oversees all aspects of accounting and finance. Provides support coordinating HR activities as needed. Serves as part of the leadership team for AMS.
Annemarie Murphy	Assistant Controller	Manages accounts payable, payroll, and cash receipts. Provides support to CFO.
Caitlin Garrison	Publications Billing and AMS Office Manager	Designs ads, brochures, and other collateral material. Manages ad solicitation, growth of ad revenue, and scheduling for BAMS, meeting programs, and the web.
Eileen Greene	Accountant	Manages accounts receivable, non-author charge billing operations, and functions associated with grants and contracts Provides support to CFO.

MAIL CENTER		
Prospere Chery	Mailcenter Manager	Oversees all aspects of accounting and finance. Provides support coordinating HR activities as needed. Serves as part of the leadership team for AMS.

The AMS Archives and Library group reports to Stephanie Armstrong, Associate Executive Director.

AMS ARCHIVES AND LIBRARY		
Sophie Mankins	Archivist and Curator	Manages the AMS archives and library, maintains active history of AMS, and also interfaces with historic groups that guide preservation of the AMS historic buildings.

Department of Career Development Status Report (as of 7 September 2021)

The Department of Career Development has been very productive since the last status report in December 2020.

Due to the 2021 Annual Meeting going virtual, we offered virtual short courses for the first time. Courses were very popular and filled up quickly. We hope to have more scheduled in 2022. Below is a list of those that were offered in 2021 so far:

- **Introduction to the WRF-Hydro Modeling System (Virtual Course)**
February 23, 2021 – Full-day course
- **Python for Climate and Meteorology (Virtual Course)**
March 2, 4, 9, and 11, 2021 – multi-day/half-day course
- **Introduction to the Joint Effort for Data Assimilation Integration (JEDI) (Virtual Course)**
Wednesday, March 10, 2021 – half-day course
- **GOES-R/JPSS Hands-on Training to Process, Display, and Analyze Satellite Data Products (Virtual Course)**
March 17 and 18, 2021 – multi-day/half-day course
- **Machine Learning in Python for Environmental Science Problems (Virtual Course)**
April 8 and 9, 2021 at 10:00 AM – multi-day/full day course
- **AI and Weather Radars (Virtual Course)**
May 17, 2021 – full-day course
- **Satellite Applications Virtual Training for Students**
June 16, July 7, July 28, and August 11, 2021 at 1:00 PM–2:30 PM Eastern Time (Virtual)

New Webinars

Seventeen new webinars were produced. Links to all webinar recordings are available in the [Webinar Directory](#).

- 6 January: Your Roadmap to Successfully Navigating the Virtual AMS Conference
- 11 February: The World Through My Eyes: I'm an Atmospheric Scientist who Copes with a Mental Illness
- 22 February: Multi-Scale Modeling for Urban Environment Studies
- 25 February: AMS Black History Month 2-Part Panel
- 12 March: Thunderstorm Photography: Capturing the storm one 'flash' at a time
- 18 March: Going through a Career Event Early in your Career
- 31 March: Careers in Radar Meteorology
- 28 April: Hurricanes and Climate Change: What We Know, and What We Don't
- 5 May: Climate Change and Cities: Emerging Directions in Research and Action
- 7 May: 2-Body Problem: Challenges Navigating Life with Married and Partnered Atmospheric Scientists
- 13 May: The World Through My Eyes: I'm an Atmospheric Scientist with a Mobility Impairment
- 19 May: Fostering International Collaborations with Spanish-Speaking Countries
- 30 June: AMS Annual Meeting Webinar Series: June Edition
- 22 July: Financial Forecasting: Advice for Weathering Your Money Challenges (and Future) in Your Early Career
- 2 August: The World Through My Eyes: I'm an Atmospheric Scientist Who Copes with a Chronic Illness
- 18 August: AMS Annual Meeting Webinar Series: August Edition
- 23 August: Developing and Growing Your Support Network

New Podcasts

We released nineteen new podcasts. [Links to all podcasts are on the Career Resources site.](#)

1. 8 December - Carl Schrek, Research Meteorologist, North Carolina Institute for Climate Studies
2. 22 December - Don Berchoff, CEO, TruWeather Solutions Inc.
3. 12 January - Vanessa Alonso, Sunrise/Midday Meteorologist, WCBI-TV
4. 26 January - Doug Hilderbrand, Physical Scientist, National Weather Service
5. 9 February - Matt Fronzak, Weather Portfolio Advisor and Principal Aviation Systems Engineer, MITRE Corporation
6. 23 February - Tanya Brown-Giammanco, Managing Director of Research, Insurance Institute for Business & Home Safety
7. 9 March - Jeff Strong, Scientist / Climatology, AIR Worldwide
8. 23 March - Tom Kilpatrick, Assistant Project Scientist, Scripps Institution of Oceanography
9. 13 April - Javier Fochesatto, Professor and Chair Department of Atmospheric Sciences, University of Alaska
10. 27 April - Meredith Garofalo, Certified Broadcast Meteorologist (CBM), WeatherNation
11. 11 May - ECLA Special
12. 25 May - Sarav Arunachalam, Deputy Director, Institute for the Environment at University of North Carolina at Chapel Hill
13. 8 June - Paul Pisano, Consultant, Transportation Operations
14. 22 June - Michelle Hawkins, Severe, Fire, Public, and Winter Weather Services Branch Chief, NOAA
15. 13 June - David Curtis, Senior Vice President, WEST Consultants
16. 27 July - Kelsey Doerksen, Space Systems Engineer and Satellite, Operator, Planet
17. 10 August - Jan Dutton, CEO, Prescient Weather
18. 24 August - Irene Sans, Editorial Manager and Meteorologist, Weather & Radar
19. 7 September - JP Kalb, Weather Observer, San Jose Airport Weather Station

Certification Programs

We have received 65 applications so far this year. For the new CAT program, we will have awarded the certification to 50 teachers by the end of 2021, which is very exciting. The CCM Program continues to run smoothly with the virtual oral exam process.

Career Resources Website Enhancements

- [102nd AMS Annual Meeting Career Activities page](#)

TAB 14.3

AMS Education Program

The Education Program staff have been quite busy since the January 2021 Council Meeting. With our partners, we have successfully launched two semesters of the online DataStreme: Atmosphere, DataStreme Ocean, and DataStreme Earth's Climate System professional development (PD) courses for K-12 educators, thereby reaching 200 teachers throughout the country. As a part of implementation, we expanded our recently-launched needs-based fee waiver program, and leveraged several funding sources, including residual NOAA funds associated with the pandemic-forced movement of summer courses online, to provide no-cost PD to 168 of the 2021 DataStreme course participants. These actions were taken to both support teachers and keep our programs strong during an admittedly difficult and stressful time for educators to be participating in PD programs.

On a bright note, survey feedback confirms that both our summer 2021 teacher PD courses were offered very successfully to a total of 34 participants. The pandemic led us to conduct the NOAA and NASA-supported Project Atmosphere course fully virtually for the second time due to the unavailability of the host facility. In contrast, the first full offering of ONR-funded, Project Ocean was conducted in its full 5-week format with one week of residence instruction and field work with our new partners at Washington College in Chestertown, MD. These courses were highlighted in the Sep. 2021 issue of AMS Soundings and an article featuring teacher interviews published by NASA.

We worked throughout the year to update and adapt our digital undergraduate curriculum materials (texts, investigations manuals, and weekly current studies) in weather, ocean, and climate science. Despite the turbulent times for academia, our undergraduate course licensing and sales held strong due in part to their design being well-suited to online implementation and the continued evolution of our product delivery to meet changing demands. Staff are currently focused on a significant revision to dated content of "Our Changing Climate" curriculum package.

We are proud to have supported AMS members to create a new Atmospheric Science Education Research (ASER) page as a part of the AMS Education website (ametsoc.org/amstedu), we continue to actively support our four social media channels, and we worked throughout the year to actively market our teacher PD, Certified AMS Teacher (CAT), and undergraduate programs and resources through virtual presentations and conference "exhibits".

By the time of the Council meeting, we hope to be able to share positive news regarding the success of a major NSF proposal on which we are a subawardee. If/when we are successful, we will begin work to develop a new climate/Antarctic ice core-focused teacher PD summer course, "Project Ice". Interest among our vast teacher network in the promise of this new course is very high! We will soon begin work to renew our major awards from NOAA and ONR and our annual support from NASA, as well as our corporate partner, Lockheed Martin.

TAB 14.4 Policy Program

Brief Update

Link to Council Webinar from 2020: <http://bit.ly/AMSPolicyvideo>

COMMUNITY-ENABLED INNOVATION (STUDIES)

Council might be interested in these ongoing or recently completed Policy Program studies:

- Workforce challenges & needs (in review, White/Tipton/Miller)
- Inclusion, equity, and justice facilitation plan for the enterprise (Higgins/White/Tipton)
- Weather-water-climate value chains: The economic benefits of hydro-met services (Lazo)
- Policy and innovation: Fair Weather; legislation; and WMO Resolution 42 (Hooke)
- Science assessment to support coastal resilience (Tipton)
- Science assessment and our energy future (Tipton/Miller/Higgins)
- Structural options for policy engagement (Higgins)
- Options for enhancing NOAA's Weather Ready Nation initiative (Grow)
- A "septennial" community synthesis of opportunities and needs (aspirational)
- A community synthesis of climate solutions (bit.ly/AMSSynthesis Hooke/Seitter/Higgins)
- The Arctic: science and policy needs (Miller)
- Socioeconomic inequality and climate change hazards (Sullivan/White)
- Societal benefits in weather, water, and climate (bit.ly/sbwxc)

RELATED ACTIVITIES TO BUILD CAPACITY

Councilors and commissioners might participate in, be aware of, or contribute to:

- The AMS Summer Policy Colloquium (www.ametsoc.org/spc Hooke)
- The nonresident fellows program (bit.ly/amspwho)
- AMS Policy Program memos (www.ametsoc.org/memos)
- Public-private partnership national strategy discussions
- AMS community and volunteer engagement (e.g., STAC and CWWCE)

GOALS: We see three primary goals with respect to policy: 1) to help ensure that policy choices take full advantage of information & services relating to weather, water, & climate, 2) to increase awareness of how society's welfare depends on Earth system observations, science, & services, and 3) to facilitate collaboration across the enterprise in support of public interest.

APPROACHES: The AMS Policy Program uses three primary approaches: 1) we increase capacity within the scientific community to contribute to the policy process (e.g., the Summer Policy Colloquium), 2) we inform policy makers about policy-relevant scientific understanding, and 3) we synthesize insights and ideas for public use of science (e.g. through workshops and working groups).

BUDGET AND FUNDING: The public-private partnership that primarily funds the AMS Policy Program is very strong for 2021 and looks solid for 2022. We had four grants and five corporate underwriters in 2021. The budget for 2023 is more uncertain, which is not unusual at this point.

WHO WE ARE: The AMS Policy Program has five permanent staff (Lauren White, Emma Tipton, Andy Miller, Bill Hooke, and Paul Higgins), one adjunct staff (Anita Gajdecki), and 10 nonresident fellows (Shuchi Talati, Aaron Piña, Mona Behl, Michael Morgan, Jamie Hawkins, Shawn Miller, Erica Grow, Kristen Averyt, Jon Malay, and Jeff Lazo).

PRINCIPLES OF THE AMS POLICY PROGRAM

- Policy choices have the greatest chance to benefit people and the planet when grounded in the best available knowledge and understanding
- Science (observations & research) can inform decision-making (and value judgments) but science alone is insufficient for societal decision-making because choices involve interests, political preferences, religious beliefs, cultural views, and ethical principles
- The consideration and appropriate weighting of opinions & values is an important complement to evidence in decision-making on any issue for a democratic society

Therefore, the AMS Policy Program:

- Promotes evidence-based decision-making on behalf of:
 - The weather, water, & climate community (members & non-members)
 - The broader society with respect to Earth observations, science, & services
- Strives to provide objective evidence that people can understand, trust, & use
- Tries to identify, to the extent possible, shortcomings with evidence, limits of information, relevant contradictory results, and credible scientific disagreements
- Respects that people can be familiar with scientific evidence and make different choices about how best to use that evidence and/or disagree about the appropriate role of scientific information in value-laden decisions
- Identifies policy options and characterizes their advantages and disadvantages
- Avoids policy prescription

EVIDENCE-BASED DECISION-MAKING

We champion the scientific process and the use of scientific information in decision-making. We work constructively with all who wish to make good-faith efforts to understand, communicate, and use science, irrespective of their political, religious, cultural, moral, & ethical values.

Through our activities, the AMS Policy Program advances societal decision-making with respect to weather, water, and climate. This helps policy-makers recognize & manage Earth system risks & take advantage of emerging opportunities.

TAB 14.5 Publications

Gwendolyn Whittaker, Director of Publications
10 September 2021

COVID-19 and AMS Publications

The Publications Department has operated routinely through the pandemic with minimal impacts on author and editor support or on production schedules. Regular work-from-home days were a long-established practice for Publications staff prior to the pandemic, and the department's systems and workflows do not rely on physical office locations. Key vendor services (submission tracking and author/reviewer database, composition and related services, online hosting) have also operated normally during this time.

Business model and Open Access

Most AMS journals operate under a hybrid business model, as [subscription journals with options for immediate Open Access for individual articles](#). This model has so far allowed us to accommodate author and funder requirements and provide a level of [public access](#) to published research, while at the same time sustaining Publications as a key revenue source for AMS. Our current model presents barriers for "PlanS" funded authors in the UK and EU. Via JISC in the UK, we are exploring the viability of a consortial model for UK-based authors and subscriber institutions.

Routine Operations

AMS journals are known for rigorous peer review and for publishing high impact papers. AMS provides above-average levels of user support and editorial service for authors, as well as staff support for peer review editors. At the same time, journals staff pursue ongoing refinement of workflows, aiming to keep costs and production times down, and ensuring that AMS journal operations are in line with standard industry practices.

2021 Projects: Responding to Stakeholder Needs and Technology Advances

New journal launch

Following Council approval of the new journal *Artificial Intelligence for the Earth Systems (AIES)* in July 2021, staff is moving as rapidly as possible to set up the submission and production systems, aiming to begin accepting submissions in mid-fall 2021. Staff support also includes working closely with AIES Chief Editor Amy McGovern as she establishes the journal's Editorial Board, recruits Associate Editors, and promotes submission to the journal.

Author name change policies

Authors of published articles may need to change their names for a variety of reasons, and can contact AMS Publications to request [name changes on published articles](#). In August 2021, AMS Publications was pleased to join a transgender inclusive [US National Labs](#) initiative which enables researchers from those labs to ask their respective institutions to pursue name changes on their behalf directly with publishers and journals.

New submission requirements

Effective 1 Sept 2021, all submissions must include a [Data Availability Statement](#). Additional new formatting requirements will allow us to provide Early Online Release versions of articles in a more polished format. These include line spacing of 1.5 (instead of 2.0), and presenting captioned figures and tables in the body of the manuscript as they are cited.

SmartProof (online proof editing tool)

To be implemented in fall 2021. Once integrated into our author proof workflow, the tool will provide authors a simpler proof correction interface, and save time to final publication. _

AMS Books

As of July 2020, there is no longer a staff position solely tasked with books: activities are incorporated into the responsibilities of other department staff. Promotion and distribution support for published books continue via Chicago University Press and the AMS online bookstore, as does support for manuscripts under contract. AMS may occasionally publish a book of particular importance to the community, but we are not actively seeking new titles.

Publications staff

Director of Publications, Gwendolyn Whittaker

Peer Review Support

Tiffany Bischoff (Coordinator)

Andrea Herbst (Coordinator)

Hayley Charney

Felicia Gullotta

Erin Gumbel

Ali Russo

Christine Ziebarth

(one open position as of 1 Sept 2021)

Production

Senior Manager for Publishing Operations, Mike Friedman

Sheila Gafvert (Production Manager)

Danielle Joyce

Lindsay Moore

Walton Rea

Liz Wright

(one open position as of 1 Sept 2021)

Copy Editors

Jessica LaPointe (Manager)

Kristin Gilbert

Ramesh Pillay

Nicole Rietmann

Andrea Schein

Technical Editors

Mark Fernau (Manager)

Hollis Baguskas

Rick Brandt

TAB 14.6

Weather Band

Weather Band Update

AMS staff recently held a full-day retreat to review the current state of Weather Band (WB), better align Weather Band mission and strategy within the framework of the new AMS Department of Engagement, and plan goals and approaches for the upcoming year. We expect to further develop a year-2 strategy and plan with the Weather Band Committee over the upcoming weeks. Outlined here is a high-level overview of initial outcomes from the retreat. More detailed discussions will be occurring that will further refine our plans for WB.

Background and Refined Approach

Weather Band was conceived primarily as an additional revenue stream for the AMS, but was not aligned well with the overall mission and goals of the AMS. Following Council guidance, WB was managed primarily as a separate entity from AMS professional organization. Moving forward, we see adjusting WB to better align with AMS's overall engagement strategy and recent restructuring to better prioritize our engagement efforts. As part of this approach, some high-level objectives for WB include:

- Using WB as a primary channel to broaden the reach of the AMS beyond the core weather, water, and climate (WWC) professional community and to extend that to the general public in alignment with AMS's strategic goal, "To build knowledge of the atmospheric and related sciences among varied audiences"
- Using WB as a channel to better organize existing AMS communication and outreach efforts into a more cohesive approach and effort (podcasts, blogs, BAMS content, public outreach events, etc.) that informs the community and public about the importance of the work the AMS performs and how it benefits and serves them (per the AMS mission to "for the benefit of society").
- Focusing WB as a way to foster engagement, collaboration, and understanding between professional members and non-professional enthusiasts (including the general public), thereby advocating for the importance of the scientific process and positioning AMS as a trusted source of information for the public.
- Leveraging WB as an outreach channel for community science events, collaboration, and engagement at a local level

Product Positioning

The WB's current goal is to provide a place for weather enthusiasts of all types to gather and share their love of weather. Content is focused on educational webinars about a variety of weather topics as well as weather stories, history, and observation instruments. Competition in this area is growing quickly. There already exist a large number of content channels that provide unidirectional communication from the content provider to a passive audience receiving content (examples include the Weather Channel and Fox News' new 24 hour weather offerings). Many of these content channels are freely available, already have well-established audiences, have large resources, and would be competing directly with AMS WB should we continue to focus on this type of content. We do not think that competing directly with these other content providers will result in financial success or contribute significantly to the overall AMS mission and strategic goals.

AMS already produces a number of channels of content that can be leveraged for a WB audience. These include blogs (Front Page, Living in the Real World, etc.), podcasts (AMS on the Air, Clear Skies Ahead, etc.), BAMS, and other public outreach events and activities (chapters, BPO, etc.). Much of this content is appropriate for an audience that goes well beyond or professional Members and members of the WWC. This existing content can be leveraged to feature the AMS, and how its work, members, and community serve and benefit the general public and society.

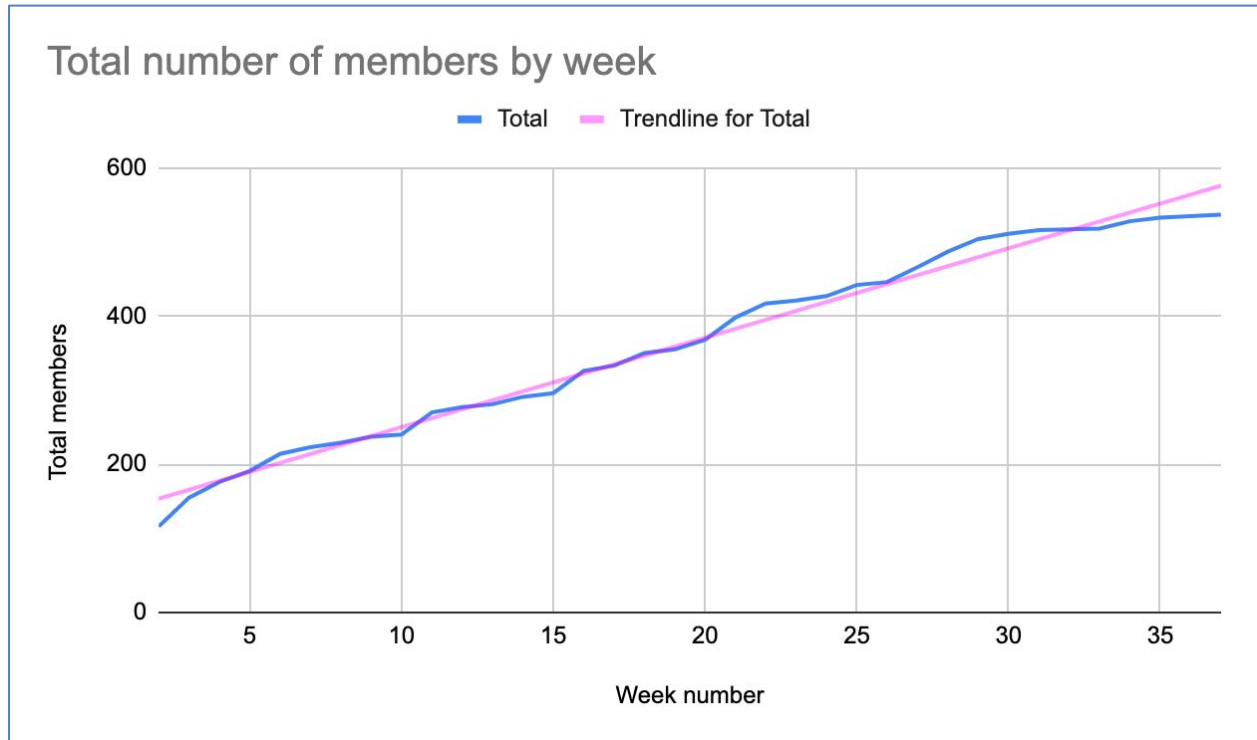
In addition to better repurposing and showcasing existing AMS content, we propose repositioning WB as a tool for engagement, coupled with an emphasis on citizen and community science. This aligns the Weather Band with the historical roots of AMS' citizen science beginnings, fosters innovation and service to society by encouraging collaboration between professional and non-professional membership, and lays the groundwork for new outreach to historically underserved communities who have lacked means and access to professionalization in WWC fields. Initial ideas to build on this approach include:

- Better focusing WB as a gateway for communication and engagement between WWC professionals and the broader public through two-way communication events. We see WB acting as the bridge between these two groups and providing a community where professionals and non-professionals are able to come together, share ideas, communicate science, discuss local impacts and efforts related to WWC, and break down the divide between experts and the general public.
- Highlighting how local (non-professional) communities are contributing to and already engaging with the WWC community work (e.g. highlighting community science efforts). We see WB as an avenue for communicating more of the work that takes place at the local chapter level, offering new ways for AMS boards and committees to understand how their work impacts the general public, and also producing more public awareness of what AMS is and what it does.
- Creating engagement events specifically to highlight community and citizen science, that will both leverage existing partnerships (such as with AGU's Thriving Earth Exchange) and provide value to AMS government partners by recruiting new members for programs such as CoCoRaHS and the Cooperative Observers Network.
- Recruiting professional members of AMS to act as "science mentors" for non-professional members of WB in order to provide one time or ongoing advice on community science projects. We see this as a way to create direct advocacy for the scientific process, provide community service and professional development opportunities for professional members, and create a pipeline of community oriented volunteers that will also benefit the work of the Board on Community Service.

Current State of WB

Briefly, Weather Band membership is on a steady, but slow, increase as shown in Fig. 1. We have found that our marketing efforts to various audiences and via a variety of different channels have resulted in measurable increases in membership. However, we need to increase the slope of member joins over the upcoming months and through 2022 so that WB is able to become self-sustaining and contribute to the overall AMS revenue stream. While we want WB to act as a path for engagement that fulfills the AMS's strategic goals, we still believe there is significant potential for WB to develop into a new, reliable, and significant revenue stream for AMS.

FIG 1.



For 2022 we have budgeted a revenue of \$35,000. This is based on us increasing membership to 3000-3500 members by the end of 2022. Note that we only apply a fractional amount of the dues to the annual revenue budget line. For example, an individual that joins on October 1, we only count 3/12 of the revenue. The \$35,000 revenue is based on us increasing the slope of new members more significantly toward the last quarter of 2022. The full revenue of 3000+ members would be realized in 2023 with revenue >\$100k.

[A full summary of the WB retreat](#), resulting action items, and analytics is available.

TAB 14.7

Community Engagement

AMS Department of Community Engagement

Over the past couple of years we have been building AMS's community engagement efforts. In large part this has been driven by the new centennial initiatives that were defined, but we have also seen community engagement evolve in other areas, including our partnerships with other organizations, new journal proposals, the evolving BAMS, the AMS Community, and more recent initiatives like Weather Band.

The AMS has restructured to create a new Department of Community Engagement. Previously, engagement activities were part of the Membership (and Engagement) Department. By separating out community engagement activities, we expect to be able to better prioritize and support engagement work, while maintaining strong support for existing member services. This follows the recent restructuring of what is now the Education and Engagement Commission and allows for better support of the volunteer structure.

The Department of Community Engagement staff consists of:

Claudia Gorski, Director of Community Engagement
 Erica Callahan, Manager of Member and Volunteer Engagement
 Tiernan Doyle, Public Outreach Manager
 Erik Wilke, Online Community Engagement Coordinator

Initial activities supported by this department include, but are not limited to:

- Commission engagement
 - Centennial Initiatives
 1. Local-Collaboration Networks
 2. Member Volunteer Portal
 1. TEX
 2. International Academic Volunteering
 3. AMS-WMO
 3. Partner-Organization Web
- Volunteer Engagement
 - AMS Online Community platform
 - Volunteer platform (centennial initiative) and associated How to Get Involved campaign
- Chapters Outreach and Engagement
- Public Outreach
- Weather Band (Enthusiast and public engagement)
- Volunteer support

A more detailed strategy and approach to engagement is being developed. Please refer to the Community Engagement summary for more initial strategic information.

These efforts help serve AMS's mission to benefit society and strategic goals:

- To convene a wide range of related disciplines and professions in tackling critical problems of societal importance that center on weather, water, and climate
- To build knowledge of the atmospheric and related sciences among varied audiences
- To develop greater synergies among all sectors of the enterprise
- To support collaborative national and international programs that benefit society, help protect lives, build economic value, and foster resilience

TAB 14.8 Membership

AMS Membership – Fall, 2021 Update

Beth Farley, Director of Membership

2021 Memberships

- The total number of individual members on August 31, 2021 was 11,001 vs. 11,089 on August 31, 2020. (A breakdown of the total by member type and a comparison to 2020 appears at the end of this write-up.)
- As of August 31, the average amount paid by an individual Member was \$108. The average paid by full Members in 2020 was \$111.
- So far this year, 31% of members selected to auto-renew their membership for 2022. The percentage of members who selected auto-renew last year was 22%.
- As of August 31, just over 35% of members chose to receive print BAMS by mail vs. the 39% in 2020.

Membership marketing in 2021

So far in 2021, marketing for the purposes of member recruitment and retention has consisted of the following efforts:

- Renewal Campaign for active members (Oct-May)
- Nurture Campaign for new members (sequence of 6 messages to promote engagement)
- New member recruitment: Outreach after annual and specialty meetings (4 message campaign to non-member attendees), social media posts, Facebook, and Google ads.
- A renewed effort to recruit lapsed AMS members by providing them with information on recent improvements and additions to AMS's products and/or services, such as our tiered-dues structure, career development resources, online community, CAT, virtual meetings, etc.

Member Strategy

As we've noted in previous reports, there has been a gradual decline in membership numbers across non-profit societies, including AMS, for a number of years. We have been actively working with the Board on Membership to review our overall membership strategy and associated membership revenue model. Our discussions so far this year have focused primarily on the following:

- Tiered dues: Implemented for the 2020 membership year, the tiered dues structure was created in order to reduce the financial barriers to membership for those in the lower salary ranges, such as recent graduates and retirees. While some members have been vocal about their dislike of the structure, it is unclear how the membership feels about the change. The BoM, with the assistance of staff, continues to discuss how best to gauge the opinions of current members and those who have let their memberships lapse.
- Member demographics: Research done by staff shows that since the tiered dues structure was implemented, the percentage of younger members has increased, while the number

of older members has decreased. In addition, there is a notable drop-off of members in their late 30s/early 40s, possibly because members find AMS no longer relevant or beneficial once their careers are off the ground. Given the possible negative impacts of the pandemic and the fact that the new dues structure has been in place for just two renewal seasons, staff and the BoM will continue to monitor the age distribution of the membership in order to get a better sense of the tiered dues structure's impact and whether a change to our pricing model is warranted.

- Member benefits: A staff audit of program offerings seems to indicate that AMS provides many of the same benefits that other similar professional orgs offer to their memberships. The BoM is in the process of reviewing these offerings in order to better assess the pros and cons of making certain of them members only vs. free to all.

Recruitment and retention efforts for the remaining of 2021 include:

- Coordination with partner societies to promote affiliate memberships (i.e., with CMOS, CMS, IMS, and others)
- Survey of first-year members to determine reason for joining/use of benefits
- Further definition of different target audiences (i.e., nonmember job board users) and appropriate messaging

Member Type	8/31/21	8/31/20
Member (includes Fellow, Honorary, Graduate Student)	8619	8455
Associate (includes Voting Associate & Teacher)	769	878
Student Member	1613	1766
Corp & Inst Members	129	135
Total	11,130	11,234

TAB 14.9

Science, Service, and Society

It is under this banner that we report to the Council on activities that fall under the Council-approved “Framework for Government Interactions.” In most cases, these activities represent letters to agencies or the Hill.

There are always quite a few draft letters being passed our way by various coalitions to see if AMS will sign on, and this year has been no exception. In many cases, we are one of many organizations that sign a letter to the Hill on an issue of importance to the scientific community, and it is good to have our name listed with those other organizations. We are frequently asked to sign onto letters that deal with specific aspects of agency budgets, and our signing on would go against the Framework that guides this process. While it is possible that the absence of our name has been conspicuous in a few instances, I continue to feel that the Council’s Framework has been critically important for our success in being viewed by the Hill as an “honest broker” on a variety of issues.

A particularly active area for letters this year has been on spectrum issues related to the rollout of 5G and communications companies seeking to acquire rights to portions of the spectrum that are used by our community. This is a complicated issue and the letters we have sent or signed onto have been long and technical. There is strong evidence that our efforts on this front have had an impact, however.

Here are the letters that have been sent this year, in reverse chronological order. All are posted on the AMS website here: <https://www.ametsoc.org/ams/index.cfm/about-ams/ams-position-letters/>.

8 September 2021

Multi-society letter to Congress requesting an increase in EB visas for STEM

26 July 2021

AMS, AGU, and NWA comments to FCC on protecting the 24 GHz spectrum band

20 July 2021

Joint statement from AMS, AGU, and NWA for the Congressional hearing on "Spectrum Needs for Observations in Earth and Space Sciences"

27 May 2021

Multi-society letter supporting increased funding for the National Science Foundation

24 May 2021

Letter from AMS, AGU, and NWA to the Secretary of Commerce on spectrum issues

20 May 2021

Letter from AMS, AGU, and NWA to the Senate Committee on Commerce, Science and Transportation on spectrum issues

29 April 2021

Multi-society letter for the new Congress and new Administration on policy principles for the physical sciences

22 April 2021

Multi-organization letter to President Biden expressing concerns about the Ligado Order

22 April 2021

Multi-organization letter to Congress expressing concerns about the Ligado Order

8 April 2021

Letter to President Biden from the Medical Society Consortium on Climate and Health

23 March 2021

Multi-organization letter of support for the Scientific Integrity Act

19 January 2021

Multi-organization letter to FCC expressing support for action to preserve portions of the spectrum

TAB 15.0

AMS Affiliation with Other Organizations

Organizations with which the AMS has formal membership affiliations

Below is the list of other organizations with which AMS has a formal connection as an organizational member. The Council asked that the Executive Director review the list each year and report.

AAAS (American Association for the Advancement of Science)

We are members of three sections of AAAS, including the Atmospheric and Hydrospheric Science; Physics; and Information, Computing and Communication. The Executive Director is the official representative to AAAS. We participate in the AAAS Congressional Fellow Program. AAAS has also cosponsored with us some of the Hill briefings organized by the APP.

AGI (American Geosciences Institute)

AMS became a member society of AGI in October 2017, but had been collaborating with them on projects for a number of years. AGI provides information services to geoscientists, serves as a voice for the geosciences community, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources, resilience to natural hazards, and the health of the environment.

AIP (American Institute of Physics)

We are a Member Society which allows AMS members to receive *Physics Today*, as well as including other benefits for AMS members and for AMS as an organization. In addition, the AMS provides both sponsorship funds and volunteer support for their Inside Science initiative, which creates short science segments for use in television news programs.

ASAE (American Society of Association Executives)

This is a group that consists primarily of executives of the various societies. They run a number of good courses throughout the year and provide information on publishing journals and running meetings. They have seminars on financial management and a wide variety of activities related to societies. They also follow activities in the Congress and the Administration that could impact society activities and occasionally take positions on various topics. I try to follow the activities as much as possible.

ASLI (Atmospheric Science Librarians International)

The AMS is an organizational member of ASLI. We provide meeting space for the annual meeting of ASLI at the venue of the AMS annual meeting, and ASLI has been very helpful to AMS as a sort of "users group" of our journals that can provide good feedback on how we are doing from the library perspective.

CAST (Council for Agricultural Science and Technology)

A group that has many affiliated societies, including AMS, that has been producing reports on various aspects of agriculture for a long period of time. John Prueger, a soil science researcher (and long-time AMS member) with the USDA in Ames, Iowa, is the current AMS CAST representative.

I am of the opinion CAST is quite responsible in its studies, reports, and lobbying but we must recognize that they are fostering the agricultural community, so from time to time one or more of our members could become concerned about CAST activities.

CESSE (Council of Engineering and Scientific Society Executives)

This organization has two meetings a year and they are exclusively devoted to trying to exchange

information among society executives and staff with regard to the operation of the societies. CESSE is most useful as a clearinghouse for information about how other societies approach common issues, from membership retention, to human resources, to open access publishing, to how to have “green” meetings. A number of staff members are active in CESSE programs, and several have served as session or track chairs over the past few years. I think we gain a great deal from these interactions with colleagues in similar societies.

CHORUS (Clearinghouse for the Open Research of the United States)

This is a public-private partnership that seeks to provide an appropriate process for publishers to make federally funded research results published in their journals available as open access content in response to the OSTP memo of February 2013 calling for all major funding agencies to have an open access plan. AMS is a signatory on the CHORUS initiative, and a member of CHOR, its parent organization.

IABM (International Association of Broadcast Meteorologists)

The AMS is an organizational member of the IABM, which supports the broadcast and media technology industry for meteorology worldwide. It is a small organization with very limited resources, but promotes professionalism in broadcast meteorology in other countries and certainly furthers the goals of the AMS in these areas worldwide.

IFMS (International Forum of Meteorological Societies)

This organization was founded under the leadership of Walt Dabberdt during his year as AMS president and they had their first Global Meeting at the AMS annual meeting in Atlanta in 2010. The AMS provides modest IT support for the group by maintaining its web site at www.ifms.org. As an umbrella organization promoting information sharing among the meteorological and related societies around the world, it has the potential to be a very useful group. AMS helped IFMS become a registered 501(c)(3) nonprofit. Keith currently serves as VP-Finance for IFMS, which makes him part of its Executive committee and Council.

ITSA (Intelligent Transportation Society of America)

The Intelligent Transportation Society of American is a not-for-profit organization established in 1991 to coordinate the development and deployment of ITS in the United States. ITS America also has alliances with ITS organizations in other countries, most notably in Europe and Asia. The Society also provides numerous member services and programs to assist its member organizations to achieve their ITS deployment and business objectives. Originally formed as a utilized Federal organizing committee, ITS America works closely with the Department of Transportation on projects and programs in support of the National ITS Program.

Medical Society Consortium on Climate and Health

AMS become an Affiliate Member of the consortium in March 2017. This organization is dedicated to raising awareness of the impacts climate change will have on public health and the healthcare industry. It brings together organizations representing over 400,000 health professionals.

Renewable Natural Resources Foundation

This group’s purpose is to advance the science and public understanding on renewable natural resources. Many societies similar to the AMS are affiliated with this group (AGU, ESA, and AAG, for example). Paul Higgins in the APP is serving as the official AMS representative on our behalf, which is working well since he is located in the DC office and can easily attend the lunchtime meetings this group has from time to time. I go to the RNRF Roundtables when I can, and have been to several. They tend to be quite good.

Societies Consortium on Sexual Harassment in STEMM

This organization is a collection of scientific and engineering societies that is developing

framework documents and procedures for dealing with harassment and other ethics issues. The concept is that if all societies do this along common approaches the result will be uniform application across all STEMM fields.

Organizations with which the AMS has other forms of affiliations

The above list ignores the organizations such as AGU and UCAR with whom AMS does a lot both formally and informally. The following represent organizations with which the AMS is affiliated in ways other than as an organizational member.

AAG (Association of American Geographers)

The journal *Earth Interactions* is copublished with AAG (and AGU), but with AMS as the lead publishing society. We have been cultivating a more extensive relationship with AAG recently, helping to organize sessions at their annual meeting, for example.

AGI Geopolicy Working Group

This is the group under the umbrella of AGI that organizes the Geosciences Congressional Visits Day that the AMS has been participating in recently. Paul Higgins is the key contact on the AMS staff.

AGU

As one of the more closely related scientific societies, there are a number of ways in which the AMS and AGU collaborate, and we have formalized that collaboration with an MOU between the two organizations.

Since many AMS members are also AGU members, it is typical for the AMS governance to include many AGU members (and vice versa) and occasionally for an individual to be in a governance position in both organizations.

The journal *Earth Interactions* is copublished with AGU (and AAG), but with AMS as the lead publishing society.

For the past several years, AGU has held its biennial heads and chairs meeting jointly with the AMS/UCAR meeting.

The AMS has participated in a number of AGU-sponsored efforts, such as efforts in increasing diversity in the geosciences led by AGU.

AMOS (Australian Meteorological and Oceanographic Society)

AMS and AMOS have an MOU that supports sharing of information, cooperation, and a form of reciprocal membership between the two societies so that members of one can join the other at a reduced dues rate.

CMOS (Canadian Meteorological and Oceanographic Society)

AMS and CMOS have an MOU that supports sharing of information, cooperation, and a form of reciprocal membership between the two societies so that members of one can join the other at a reduced dues rate.

Cosponsors for AMS meetings

There are a number of organizations that serve as cosponsors to the AMS annual meeting. These organizations make no financial commitment to the meeting, but agree to promote the meeting through their normal communication channels to their members. In exchange, members of these organizations can attend the AMS meeting at the cosponsor registration rate. The typical list of cosponsoring organizations includes: AGI, AGU, ANS, ASA, ASLI, AWRA, AWWA, ESA, GSA, IEST, NHWC, and WMO.

We also have some other societies or other organizations that cosponsor specialty meetings where there is a financial commitment. A few recent examples of these include the Canadian Meteorological and Oceanographic Society, Weather Modification Association, EPA, the Bureau of Meteorology in Australia, and EUMETSAT.

COSEE (Centers for Ocean Sciences Education Excellence)

We now have an MOU with COSEE that codifies the sort of cooperative collaborations that the AMS Education Program has undertaken with them informally for several years (sharing booth space at conferences, exploring grant partnership opportunities, exchange of educational materials, etc.) and they have always been good partners.

CMS (Chinese Meteorological Society)

AMS and CMS have an MOU that supports sharing of information, cooperation, and a form of reciprocal membership between the two societies so that members of one can join the other at a reduced dues rate.

EMS (European Meteorological Society)

The AMS has a formal agreement with EMS that we will work together to try to avoid scheduling meetings in conflict. In addition, the agreement suggests that, when possible, someone in the governance of the EMS will attend the AMS annual meeting and someone in the governance of the AMS will attend the EMS annual meeting.

IMS (Indian Meteorological Society)

AMS and IMS have an MOU that supports sharing of information, cooperation, and a form of reciprocal membership between the two societies so that members of one can join the other at a reduced dues rate.

ISEF (International Science and Engineering Fairs)

The AMS provides funding for ISEF to support the science fair program and also to sponsor prizes for the top entries each year in the atmospheric and related sciences. The Society also supports science fairs in much less formal ways through the involvement of members who serve as judges. This is often organized through local chapters.

NCIM (National Council of Industrial Meteorologists)

All members of NCIM must be CCMs, so the entire membership of NCIM is made up of AMS members. We partner with NCIM on workshops and other programs, and I recently finished a term on their board of directors.

NEEF (formerly NEETF)

The National Environmental Education Foundation is a private non-profit organization dedicated to advancing environmental education in its many forms. The AMS has partnered with NEEF to create some special educational sessions for the broadcast meteorology community in our efforts to move them toward being viewed as the “station scientist.” It is also a partner (without financial implications) in the NEEF “Earth Gauge” program, which provides short environmental stories for broadcasters to use.

NHMA (Natural Hazards Mitigation Association)

The AMS has an MOU with NHMA that was signed in April of 2012 that provides a framework for future collaboration on shared goals. This organization is relatively young (founded in 2008) and it works to bring together groups working on hazard mitigation. There has been some good collaboration with the AMS Policy Program in the past, and an increasing level of participation in Enterprise Commission activities by NHMA folks.

NSBP (National Society of Black Physicists)

Through an agreement with NSBP, students interested in physics and atmospheric sciences can become members of both NSBP and AMS when they join NSBP. That is, if a student wishes to be a member of both, NSBP covers the AMS student dues as well.

NSPS (Nigerian Society of Physical Sciences)

AMS and NSPS have an MOU that supports sharing of information, cooperation, and a form of reciprocal membership between the two societies so that members of one can join the other at a reduced dues rate.

NWA (National Weather Association)

About half the members of the NWA are also AMS members, so there is a strong informal connection between the two organizations. Many local chapters are simultaneously local chapters of AMS and NWA, and most of the regional meetings carried out have been jointly sponsored by both organizations. In addition, the executive director of the NWA has served on some AMS committees, such as the Steering Committee of the Enterprise Commission.

RMetS (The Royal Meteorological Society)

AMS and RMetS have an MOU that supports sharing of information, cooperation, and a form of reciprocal membership between the two societies so that members of one can join the other at a reduced dues rate.

Sigma Xi Distinguished Lectureship Program

The AMS supports one Sigma Xi Distinguished Lecturer each year, with the lecturer chosen by the Executive Committee.

Taylor and Francis

The AMS had an agreement with Taylor and Francis, the publisher of *Weatherwise* magazine, for many years that allowed AMS members to subscribe to *Weatherwise* at a significant discount off the list price.

UCAR

The AMS collaborates with UCAR in a number of ways both formally and informally. It is typical for UCAR and AMS staff to work together on meetings with congressional staff on issues related to the concerns of AMS and UCAR. For the most recent few changes of administration, a briefing document for the new administration was prepared jointly by AMS and UCAR.

UCAR and AMS had jointly sponsored a AAAS Congressional Fellow annually, but UCAR's support is on hiatus at this time. UCAR and AMS jointly sponsor the biennial heads and chairs meeting, with space for the meeting provided by NCAR.

The Oral Histories Project is supported jointly by AMS and UCAR with the resulting tapes and transcripts housed in the NCAR library archives.

WMO

The AMS for many years served as the official North American distributor for World Meteorological Organization (WMO) publications. That relationship was dissolved at the end of 2013 because it was making less and less sense with so many of the WMO publications being online. It was not really cost effective for AMS or WMO to continue to maintain this distributor relationship.

It has been longstanding practice for someone in the governance of the WMO to participate in the AMS annual meeting and for someone in the governance of the AMS to attend the WMO Congress.

An MOU between AMS and WMO that encourages greater communication and coordination in activities has been discussed from time to time, but none has been executed.

TAB 16.0
Executive Director Search

This is just a placeholder to provide an agenda item for anything related to the search for the next Executive Director.