REPORT OF THE AMS SECRETARY-TREASURER FOR 2020

1. MEMBERSHIP

The membership of the Society as of 31 December 2020:

Honorary Members	31
Members (Includes Fellows)	8103
Members, Graduate Students	357
Associate Members (Includes Voting Associate)	613
Associate Members, Precollege	104
Associate Members, K-12 Teachers	172
Student Member	1820
Sustaining Corporation and Institutional Members (CIM)	8
Regular CIM	47
Small Business CIM	6
Publications CIM	79
Total	**11,340**

Election of Honorary Members

The Council elected William H. Hooke, Florence Rabier, and Sir Robert Watson as Honorary Members of the Society.

Fellows Elected in 2020

Uma S. Bhatt
Kandis Y. Boyd
Brian A. Colle
Sarah T. Gille
Rebecca Haacker
Marika M. Holland
William W. Hsieh
Jean-François Lamarque
Maureen McCann, CBM, CCM
Amy McGovern
Laura L. Pan
Kyaw Tha Paw U
Walter A. Petersen
Bo Qiu
Danny E. Satterfield, CBM
Adrian J. Simmons
Janet Sprintall
W. James Steenburgh
Yukari N. Takayabu
Robert J. Trapp
Huug M. van den Dool
Susan C. van den Heever
Junhong Wang
Matthew C. Wheeler
Robert Wood

- 31 persons were approved as Certified Broadcast Meteorologists. Their names can be found at ametsoc.org/ccmlist (numbers 839-869). There are 584 active CBMs.

- 15 persons were approved as Certified Consulting Meteorologists. Their names can be found at ametsoc.org/cbmlist (numbers 746 -760). There are 250 active CCMs.

2. MEETINGS OF THE COUNCIL AND EXECUTIVE COMMITTEE

- The Council met in Boston, Massachusetts, on 12 January; and by teleconference on 7 February, 20-22 July, 28 and 30 September, and 13 November.
- The Executive Committee met in Boston, Massachusetts, on 11 January and 4-5 March; and by teleconference on 10 and 17 July, and 15-16 September.

3. ELECTION RESULTS - PRESIDENT-ELECT AND NEW COUNCILORS

President-Elect: Richard Clark
Councilors: Shuyi Chen
**Efi Foufoula-Georgiou
Andrea Lang
Mark DeMaria
Joan Alexander
*Michael Henry

** In addition to those elected by the membership, the Council selected a "Fifth Councilor" as per Article VII of the Society's Constitution.*
***Elected to serve remainder of term resulting from vacancy on the Council*

4. PUBLICATIONS

AMS publication activities produced the following output during 2020. (Totals are based on the actual article pages published.)

	Pages
Bulletin of the American Meteorological Society	3723
Journal of the Atmospheric Sciences	4240
Journal of Applied Meteorology and Climatology	2078
Journal of Physical Oceanography	3523
Monthly Weather Review	4975
Journal of Climate	10493
Journal of Atmospheric and Oceanic Technology	2267
Weather and Forecasting	2544
Journal of Hydrometeorology	2919
Earth Interactions	108
Weather, Climate, and Society	895
Meteorological and Geoastrophysical Abstracts	±
Meteorological Monographs	0
Total	**34,042 for Journals (excluding BAMS)**

±MGA is available online only

5. BOOKS

No books published

6. Meetings and Conferences under Sponsorship or Co-sponsorship of the Society

Please note that program abstracts, extended abstracts, and recorded presentations for these meetings and conferences are, in many cases, available on-line at: ametsoc.org/ams/index.cfm/meetings-events/past-meetings/

AMS 2020 Annual Meeting, 12-16 January, Boston, Massachusetts

- Presidential Forum
- Robert Dickenson Symposium
- Wayne Schubert Symposium
- Susan Solomon Symposium
- 48th Conference on Broadcast Meteorology
- 36th Conference on Environmental Information Processing Technologies
- 34th Conference on Hydrology
- 33rd Conference on Climate Variability and Change
- 30th Conference on Weather Analysis and Forecasting (WAF)/26th Conference on Numerical Weather Prediction (NWP)
- 29th Conference on Education
- 26th Conference on Probability and Statistics
- 25th Conference on Applied Climatology
- 24th Conference on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS)
- 23rd Conference of Atmospheric Science Librarians International
- 22nd Conference on Atmospheric Chemistry
- 22nd Conference on Planned and Inadvertent Weather Modification
- 21st Joint Conference on the Applications of Air Pollution Meteorology with the A&WMA
- 20th Symposium on Meteorological Observation and Instrumentation
- 20th Conference on Aviation, Range, and Aerospace Meteorology
- 19th Annual Student Conference
- 19th Conference on Artificial for Environmental Science
- 18th Symposium on the Coastal Environment
- 18th History Symposium
- 17th Conference on Space Weather
- 16th Annual Symposium on New Generation Operational Environmental Satellite Systems
- 15th Symposium on Societal Applications: Policy, Research and Practice
- 15th Symposium on the Urban Environment
- 12th Symposium on Aerosol–Cloud–Climate Interactions
- 11th Conference on Weather, Climate, and the New Energy Economy
- 11th Conference on Environment and Health
- 10th Conference on Transition of Research to Operations
- 10th Symposium on Advances in Modeling and Analysis Using Python
- 10th Symposium on Lidar Atmospheric Applications
- Eighth Symposium on the Weather, Water, and Climate Enterprise
- Eighth Symposium on Building a Weather-Ready Nation: Enhancing Our Nation's Readiness, Responsiveness, and Resilience to High Impact Weather Events
- Eighth AMS Symposium on the Joint Center for Satellite Data Assimilation (JCSDA)
- Eighth AMS Conference for Early Career Professionals

- Eighth Symposium on the Madden-Julian Oscillation and Sub-Seasonal Monsoon Variability
- Sixth Symposium on High Performance Computing for Weather, Water, and Climate
- Fifth Symposium on US-International Partnerships
- Fourth Symposium on Multiscale Predictability: Data-Model Integration and Uncertainty Quantification for Weather, Climate and Earth System Monitoring and Prediction
- Third Conference on Earth Observing SmallSats
- Major Weather Events and Impacts of 2019

2020 Specialty Meetings

- 19th Conference on Mountain Meteorology, *13-17 July*, Virtual Meeting
- AMS Washington Forum, *26-28 October*, Virtual Meeting

AMS 2020 Exhibit Program

- AMS Annual Meeting, *12–16 January*, Boston, Massachusetts

AMS 2020 Short Courses

Annual Meeting Short Courses, 9–10 January, Boston, Massachusetts

- A Beginner's Course to Using Python in Climate and Meteorology
- AI in Weather Radars
- An Introduction to Ensemble Data Assimilation and the Data Assimilation Research Testbed
- Becoming a Great Certified Consulting Meteorologist
- Experimentation and Development of Physical Parameterizations for Numerical Weather Prediction Using a Single-Column Model and the Common Community Physics Package (CCPP)
- From Satellite Data to Disaster Response: Every Decision Counts
- Integrating NWP System Components Using Container Technology and Cloud Services
- Integrating Weather and Climate with GIS Technology Part 1: Desktop and Online Applications
- Integrating Weather and Climate with GIS Technology Part 2: Analyze Data Using Python and Models
- Introducing the Community WRF-Hydro Modeling System an Interactive Hands-on Tutorial
- Machine Learning in Python for Environmental Science Problems: Advanced Topics
- Machine Learning in Python for Environmental Science Problems: Hackathon
- Machine Learning in Python for Environmental Science Problems: Introduction
- Plotting in Python with Metpy: Gempak-like Plots Made Easy
- Setting up a modern day mesonet – A TexMesonet example

7. EDUCATION PROGRAM

Courses

- DataStreme Atmosphere, Ocean, and Earth's Climate System Teacher Professional Development Online Courses, *Spring and Fall Semesters*
- Project Atmosphere Teacher Professional Development Course (held virtually), *Summer 2020*
- AMS Weather, Ocean, and Climate Studies Introductory Undergraduate Courses, licensed and locally offered by US colleges and universities throughout the year

Workshops

- DataStreme Mentor Team Virtual Workshop, *23–25 June*

Publications

- Weather Studies Textbook, 7th Edition
- Weather Studies eInvestigations Lab Manual, 2020–21
- Ocean Studies eInvestigations Lab Manual, 2020–21
- Climate Studies eInvestigations Lab Manual, 2020–21

Major Partnerships

- California University of Pennsylvania, offers graduate credits for five AMS courses and AMS DataStreme Certificate for completion of three of the five courses. All five make up the foundation of eligibility for the Certified AMS Teacher program.
- AMS/NOAA Cooperative Program for Earth System Science Education
- U.S. Navy Office of Naval Research
- NASA, Science Mission Directorate, Earth Science Division
- Climate Literacy & Energy Awareness (CLEAN) Network board member
- NOAA/NWS Weather Ready Nation Ambassador
- AIP education and diversity liaison committees, and Physical Sciences Education Policy Coalition
- Lockheed Martin support to modernize our satellite meteorology education and resources and support for teachers
- UCAR Unidata Program assistance modernizing our web-based weather product delivery

8. POLICY PROGRAM

Policy Training (ametsoc.org/spc)

- 20th Summer Policy Colloquium for emerging leaders in weather, water, and climate community, held virtually on *1-9 June* and subsequent summer dates

Policy Studies and Ongoing Projects (ametsoc.org/studies)

- New Minds for New Science: The Forecast for Work in the Weather, Water, and Climate Enterprise
- Enhanced Earth System Observations & Science: Analytic Needs & Workforce Opportunities
- Toward a Diverse, Equitable, & Inclusive Enterprise in Weather, Water, and Climate: A Roadmap
- The Value of Earth System Observations, Science & Services: Understanding, Communication, & Enhancement for Weather, Water (fresh and salt) & Climate
- Tailored Scientific Assessment: Meeting National Information Needs in Weather and Climate

Community Service

- UCAR's Advocacy for the Scientific Community committee
- Renewable Natural Resources Foundation board

9. AMS STATEMENTS AND BEST PRACTICES ISSUED

- **Tornado Sheltering Guidelines during the COVID-19 Pandemic** (Adopted by the AMS Council on 9 April)
- **Special Statement on Racism and Inequity** (Adopted by the AMS Executive Committee on 31 May)
- **Hurricane Preparedness During the COVID-19 Pandemic** (Adopted by the AMS Council on 30 July)
- **Priorities for a New Decade: Weather, Water, and Climate** (Adopted by the AMS Council on 28 September)
- **Best Practices for Large Retail Outlets in Preparation for Severe Wind and Tornado Emergencies** (Adopted by the AMS Council on 30 September)

10. DECEASED MEMBERS

With deep regret, we list below the members of the Society who passed away in 2020.

Ralph K. Anderson
Frederic W. Barnes
Ken V.K. Beard
Craig Clark Bell
William D. Bonner
Chris C. Bradley
Doral G. Conner
Michael E. Dotson
Franco Einaudi
Alfred N. Fowler
Michael H. Freilich
Falko K. Fye
Robert N. Hathaway
John Houghton
James G. Howcroft
Robert H. Johns
Brian Kennedy
James F. Kimpel, CCM
Chuck Kolb
Leslie R. Lemon
Michael I. Mishchenko
Mario J. Molina
Jinny Nathans
Wilson V. Palmore
Norman A. Pore
Peter S. Ray
Albert H. Schnell
Konrad Steffen
Kenneth R. Walters
Jon Wieringa, CCM

11. CHAPTERS AUTHORIZED IN 2020

The following chapters were authorized in 2020, with the number of active chapters now numbering 134. There are a total of 56 regular chapters, 8 pre-college chapters, and 70 student chapters. A full list of AMS chapters may be found on the AMS Web site at ametsoc.org/index.cfm/ams/about-ams/ams-local-chapters/chapter-listing/

- AMS at the U (University of Utah Student Chapter)
- SUNY Brockport (reactivation)
- New Cathedral School (pre-college)
- Hampton Roads (reactivation)

12. AMS Graduate Fellowship and Undergraduate Scholarship Programs

Since its inception in 1991, the Fellowship and Scholarship Programs have awarded 1360 fellowships and undergraduate scholarships with a value of just over $12.1 million. We are fortunate to have so many wonderful partners who see the enormous value in supporting the next generation of scientists. A list of those currently sponsoring a fellowship or scholarship is as follows:

Graduate Fellowships

AMS 100th Anniversary Campaign
Lockheed Martin Corporation- AMS Centennial Corporate Patron
NOAA's Climate Program Office
NOAA's National Weather Service

Freshman Undergraduate Scholarship

Lockheed Martin MST
Naval Weather Service Association
Edgar J. Saltsman Endowed Scholarship
Bernard Vonnegut and Vincent Schaefer Endowed Scholarship
Percival D. Wark and Clara B. (Mackey) Wark Endowed Scholarship
Karen Hauschild Friday Endowed Scholarship

Minority Scholarship Sponsor

AMS 100th Anniversary Campaign

Senior Named Scholarships

Bhanwar Lal Bahethi Scholarship
Om and Saraswati Bahethi Scholarship
Saraswati (Sara) Bahethi Scholarship
Werner A. Baum Undergraduate Endowed Scholarship
Bob Glahn Endowed Scholarship in Statistical Meteorology
Dr. Pedro Grau Undergraduate Scholarship
Richard and Helen Hagemeyer Scholarship
Larry R. Johnson Scholarship
Dr. Yoram Kaufman Scholarship
K. Vic Ooyama Endowed Scholarship
Orville Family Endowed Scholarship in Meteorology
Guillermo Salazar Rodriguez Undergraduate Scholarship
Women in Science Scholarship
Dr. Robert Fraser Scholarship
Michael A. Roberts, Jr. Scholarship
Naval Weather Service Association Scholarship
Science Systems and Applications, Inc. Scholarship
Dickerson Virtual Endowment Scholarship in Meteorology
Jay Fein Scholarship
Paul D. Try Endowed Scholarship in Solar Terrestrial Interactions
Liv and Walt Lyons Scholarship
Glickman Family Scholarship
Ken Reeves AccuWeather Memorial Scholarship
Warren and Mary Washington Scholarship
Dr. Terry C. Tarbell Scholarship

13. MEMBER DONATIONS

As the American Meteorological Society closes out our Centennial Campaign, I am delighted to tell you that it was an unprecedented success. We surpassed our original goal of $9 million, and I am happy to report that AMS members and friends have raised a total: $10,298,052 in the following categories:

- Current: $5,263,622
- Short-term commitments: $872,991
- Charitable Gift Annuities: 387,189
- Estate Commitments: $3,774,250

The support for student scholarships, fellowships, and travel grants remains very strong. A final list of Campaign contributors will be provided online later this year.

14. FINANCES

Provided below are summaries of the budgets for 2020 and 2021 as approved by the AMS Council during the autumn preceding the respective calendar year.

Summary of 2020 Budget

	Income	Expense	Net Income (Loss)
Membership & Communications	$1,992,000	$2,826,287	$ (834,287)
Publications	7,132,500	6,494,528	637,972
Meetings/Exhibits	4,815,500	4,233,755	581,745
K-13 Education Program	2,347,900	2,243,969	103,931
Policy Program	860,000	840,046	19,954
Development (incl. scholarships)	905,000	602,505	302,495
Totals	**$18,052,900**	**$17,241,090**	**$ 811,810**

Summary of 2021 Budget

	Income	Expense	Net Income (Loss)
Membership & Communications	$2,020,000	$2,972,964	$ (952,964)
Publications	6,643,400	6,285,624	357,776
Meetings/Exhibits	2,809,556	2,791,153	18,403
K-13 Education Program	2,174,200	2,384,119	(209,919)
Policy Program	850,600	846,185	4,415
Development (incl. scholarships)	550,500	454,788	95,712
Totals	**$15,048,256**	**$15,734,833**	**$ (686,577)**

We have yet to close the books on 2020, so final results for the year are not currently available. Based on a preliminary analysis of income and expenses, we expect that we will end 2020 somewhat better than what was projected in the budget shown above. Strong performance by the AMS journals and the 100th Annual Meeting, just before the pandemic, contributed to that positive result.

The Society's investments saw excellent returns in 2020 and ended the year with significant gains. Charitable giving to the Society, much of which is used to support scholarships, fellowships, travel grants, and other student programs, was relatively strong given the challenges faced by most community members during the year, allowing the Society to successfully surpass even its "stretch goal" of $10 million for the entire 100th Anniversary Campaign.

The Council approved a 2021 budget that projects a significant deficit in the operating budget for the year. This is a result of pandemic-related impacts on scientific meetings and other programs of the Society. A Payroll Protection Plan loan obtained by AMS should largely offset the projected deficit, provided loan forgiveness can be secured as expected.