



AAS PUBLIC POLICY AND ADVOCACY

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DEPUTY DIRECTOR OF PUBLIC POLICY, INTERIM ACTING DIRECTOR
CAA, SPACE SCIENCE WEEK
19 MARCH 2024

The AAS President and Board of Trustees represent the position, functions and opinion of the AAS.



Attendees - Past Presidents and Officers Reception in New Orleans, LA - AAS 243 in 2024

RECOMMENDED PRACTICES

FOR SCIENCE COMMUNICATION
WITH POLICYMAKERS

ELIZABETH SUHAY | EMILY CLOYD | ERIN HEATH | ERIN NASH

 SCHOOL of PUBLIC AFFAIRS
AMERICAN UNIVERSITY • WASHINGTON, DC

 AAAS

“It is no longer sufficient for scientists in academia, government, nongovernmental organizations (NGOs), or industry to conduct business as usual. Today’s challenges demand an all-hands-on-deck approach wherein scientists serve society in a fashion that responds to societal needs and is embedded in everyday lives.”

—Jane Lubchenco

Former Administrator of The National Oceanic and Atmospheric Administration

Why and How does AAS Advocate?

- Congressional Visits Day, **Action Alerts**
- Participate in multiple coalitions
 - Coalition for National Science Funding (CNSF)
 - Energy Science Coalition (ESC)
 - Coalition for Aerospace and Science (CAS)
 - Heliophysics Coalition
 - And more...
- Work closely with AAS Divisions and Committees
 - SGMA Policy Memo regarding Anti-Transgender Legislation
 - DPS Federal Relations Subcommittee on Mars Program
- Establish meaningful relationships with policy makers in the White House, Congress, and agencies
- Track and monitor all relevant federal policy activities
 - Federal appropriations and Authorization legislation
 - State Dept [U.S. National Cislunar Science & Technology Strategy](#)
- Public Policy Office manages relations with policy makers

STRATEGIC PRIORITY 1

Address significant global issues that affect astronomy.

Goals

1. Commit AAS professionals to advocate for astronomy and astronomy-related issues in the USA and around the world.
2. Minimize the impact on astronomy of the burgeoning industrialization of space as well as the degradation of the sky from space and from the ground.
3. Develop and implement a plan for the role of the AAS in mitigating climate change.
4. Provide support for AAS members in times of crisis.

Actions

Government advocacy

Advocate for implementation of the Decadal Surveys Recommendations.

Advocate for STEM education, in coordination with Education Committee goals and initiatives.

Advocate for funding, programs, policies, and regulations that broadly benefit the discipline.

Ensure the AAS community is informed on government policies affecting astronomy and provide leadership on appropriate actions.

Dark and quiet skies

Establish and advocate policy and position points concerning outdoor ground-based lighting and protection of the full EM spectrum.

Provide training and resources to help members carry out dark sky advocacy to the public and to elected officials and their staff.

Large satellite constellations

Establish and advocate policy and position points concerning the increasing satellite presence in Earth orbit.

Implement relevant recommendations in the SATCON1 workshop reports.

Participate in multi-stakeholder efforts, in collaboration with appropriate organizations and agencies, on issues associated with the industrialization of space.

Climate change

Charge a task force to identify the Paris Agreement goals the Society can address and implement measures to meet them.

Professional support

Establish an emergency program to support members in need in times of crisis, most immediately the COVID-19 pandemic.





 The New York Times

Ukraine Carries On Fight While Pondering an Erosion of U.S. Aid

The government in Kyiv remains hopeful of further American assistance, but it is also looking to other resources — and trying to make clear...

1 month ago



 Axios

How one hearing brought down two Ivy League presidents

Harvard President Claudine Gay resigned on Tuesday nearly a month after a congressional hearing on antisemitism which also precipitated the...

2 days ago



 The Washington Post

Israel-Gaza war live updates: Blinken heads to Middle East amid fears of war's spread

The trip comes after a U.S. strike that killed an Iran-linked militia commander in Iraq and the suspected Israeli killing of a Hamas leader...

LIVE 1 hour ago

 CNN

Why Congress is still divided on a government spending package

With just over two weeks to go before the federal government partially shuts down if Congress doesn't act, the House and Senate remain...

1 day ago



 MSNBC News

Desperate GOP turns to election denier in race for House speaker

The House Republican conference is filled with election deniers, but after Donald Trump's 2020 defeat, few went as far as Speaker-designate...



 The New Republic

Kevin McCarthy, Shortest-Serving House Speaker in U.S. History, Is Retiring

"It is in this spirit that I have decided to depart the House at the end of this year to serve America in new ways," McCarthy wrote in a Wall...

1 month ago



 The Washington Post

Supreme Court faces pressure to decide if Trump is on the 2024 ballot

If other states follow Colorado and Maine, there is a risk of a patchwork of decisions, with Trump appearing on ballots in some states but...

6 days ago



Federal Budget Advocacy

Account	FY23	FY24 PBR	FY24 AAS Ask	FY24 Final	FY25 PBR
NASA SMD	7,795	8,261	9,000	7,334	7,568
Astrophysics	1,510	1,557		1,530	1,578
Planetary	3,200	3,383		2,717	2,732
Heliophysics	805	751		805	787
NSF	9,539	11,300	11,900	9,060	10,183
DOE-SCI	8,100	8,800	9,500	8,240	8,583
\$ Millions					

AAS AMERICAN ASTRONOMICAL SOCIETY

NEW Decadal Surveys for 2020's

The National Academy of Sciences' decadal surveys recommend ranked, consensus scientific priorities for the coming decade.

The 2020's surveys emphasize the health of the profession while mapping ambitious plans for answering our most pressing scientific questions.



Supporting the People, First and Foremost

Diversity, Equity, Inclusion, & Workforce Development

Ensuring broad access and participation is required to recruit, retain, and nurture the best talent, and to support continued American leadership in astronomy, planetary science, and heliophysics.

Protecting & Growing Grants

Fund the people doing the science, not just the facilities they use.

- Augment Research & Analysis Funding at NASA, NSF, & DOE
- Balance operations costs & research funding for NSF MREFC
- Augment funding for theory and laboratory astrophysics

Answering Our Biggest Scientific Questions

Uranus Orbiter

What's going on inside and around the ice giant planets?

Great Observatories Mission & Technology Maturation Program

How did we get here? Are we alone?

Mars Sample Return

What is the prebiotic chemistry and biology of Mars?

Interstellar Probe

How does the sun interact with its interstellar environment?

Rubin Observatory

How does the universe work?

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<http://aaas.org>

Threats to Dark & Quiet Skies by Satellite Constellations

American Astronomical Society

The recent, massive proliferation of commercial satellites in low earth orbit (LEO) significantly threatens astronomy unless mitigating actions are taken.

Illustration based on applications filed with the ITU and the U.S. FCC.

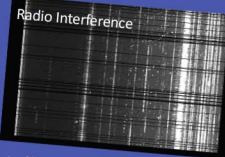


Current FCC license requests would result in 100,000+ satellites in LEO. This increases collision risk and the possibility of rendering LEO unusable to all without careful management.



All ground-based optical, infrared, and radio observatories are affected, but NSF's brand new \$400M Vera Rubin Observatory, with its wide field of view, could have streaks in 30% of images (and up to 90% at twilight). The current technical goal of 7th magnitude brightness for satellites is driven by Rubin Observatory science needs.

Satellites & debris reflect sunlight, leaving streaks across science images. Their radio transmissions interfere with radio telescopes as they pass overhead. Remote sites and software solutions are no longer enough.



Other issues

- Orbital and spectrum crowding, space traffic management
- Space debris, ASAT weapons tests, and possible diffuse sky brightening
- Environmental concerns from launch, operation, and de-orbit actions: greenhouse gases, aluminum deposition in atmosphere during de-orbit, effects of launch and night-sky brightness on ecological systems
- Global loss of cultural relationship to the sky for Indigenous peoples, loss of general dark skies for all humankind

What can be done?

- Operators and regulators need to consider the aggregate impact of these constellations.
- Coordination agreements between orbital space and night sky users (i.e., NASA, NSF, satellite operators)
- Increasing international collaboration between the US agencies and UN COPUOS, IAU, and others.
- Continued/improved financial support for mitigation efforts; for example, software mitigation for avoidance and streak removal
- Consideration of application of environmental laws to low Earth orbit

There are no current protections for optical astronomy, and limited protections for radio astronomy. AAS is collaborating with satellite operators, but all harm mitigations have been voluntary. Mitigation of harm to astronomy should be a requirement of licensing.

AAS AMERICAN ASTRONOMICAL SOCIETY

Also visit cps.iau.org
Email: public.policy@aaas.org

Tell Your Story

Answering our biggest scientific questions increasingly requires us to leverage a full arsenal of ground and space-based observatories, calling for a change in both how we think about our science and how we advocate for the future of astronomy.

HOW TO ENGAGE WITH THE AAS PUBLIC POLICY PROCESS

Action Alerts, News Digest, and Policy Blog



ACTION ALERT

"The pursuit of science, and scientific excellence, is inseparable from the humans who animate it."

— Panel on the State of the Profession and Societal Impacts, Decadal Survey on Astronomy and Astrophysics 2020: Pathways to Discovery in Astronomy and Astrophysics for the 2020s

Dear Kelly,

This week, we learned about significant [layoffs](#) at NASA's Jet Propulsion Laboratory (JPL), which represent a devastating blow for the space science workforce. As the quote above eloquently expresses, supporting talented and skilled people is critical for achieving scientific excellence and a key investment in our future.

These layoffs are a direct result of uncertainty in the final fiscal year 2024 (FY24) appropriations, which have been subject to significant Congressional delays. These delays have a substantial near-term impact and foreshadow future threats to the astronomical sciences. We ask that you call your congresspeople now to ask for support to fund NASA, NSF, and the Department of Energy's Office of Science at the highest levels possible in FY24, to protect these agencies from severe budget cuts, and let them know how important federal funding is for the astronomical sciences and our workforce.

Act Now!

Please act now to get an [example phone script](#) to help you craft your message. Let us know how well your calls went by using the form to send feedback. Thank you for advocating for your research, the people you work with, the students you teach, and all of the US astronomical community.



AAS NEWS DIGEST: 15 FEBRUARY 2024

ACTION ALERT: [Help Protect Funding for Astronomical Sciences](#)
We've made it easy to contact your congresspeople to ask for support to fund NASA, NSF, and Department of Energy's Office of Science to protect these agencies from severe budget cuts and let them know how important federal funding is for the astronomical sciences in the US. The AAS Public Policy Action Center contains an example message and phone script.

ACT NOW!

[Realizing Decadal Priorities in Astronomy](#)

AAS President Kelsey Johnson shares her perspective on the importance of advancing decadal priorities in the astronomical sciences and urges the community to help the AAS in its advocacy efforts.

[Results of the 2024 AAS Election](#)

The 2024 AAS Election closed on 1 February and the results are in!

<https://aas.org/posts/news/2024/02/realizing-decadal-priorities-astronomy>

<https://aas.org/advocacy/policy-blog>

Policy Blog

The AAS Public Policy team uses the Policy Blog to communicate with the membership about current events in the science policy world. Most policy blog posts are written by the [John N. Bahcall Public Policy Fellow](#).

[NSF Cuts in FY24 Appropriations](#)

12 Mar 2024

Cuts to NSF in FY24 Appropriations are deep. What will this mean for astronomy, as well as our current and future telescopes and observatories?

[Bipartisan Budget Agreement for FY24 NASA Funding](#)

7 Mar 2024

Congress has just released the latest budget agreement for its fiscal year 2024 (FY24) funding. In this post, we take a closer look at what this budget agreement means for key NASA missions.

[Shaping the Future — Planetary Decadals Driving Scientific Discovery](#)

7 Mar 2024

In a new feature, the AAS Policy Blog hosts a series of posts written by guest authors who assess our progress on decadal priorities and identify new opportunities and challenges for the coming decade. This week, Bethany...

[Science for a Technological Society](#)

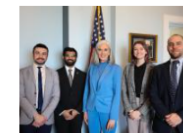
26 Feb 2024

The AAS Policy Blog will have a series of posts written by guest authors who will assess our progress on the decadal priorities and identify new opportunities and challenges for the coming decade. This week, Daniel Baker...

[Sign Up for Congressional Visits Day 2024](#)

17 Jan 2024

Congressional Visits Day (CVD) is an opportunity for AAS members to advocate for their science with policy makers in Washington, DC. The deadline to sign up for AAS CVD 2024 is Friday, 2 February.



Tiers of Communication

“The President shall serve as the Society’s public spokesperson;” (AAS Bylaws, Article III, Section 3.04)

“Each Division shall have a Board liaison selected by the Board of Trustees.” (AAS Bylaws, Article IV, Section 4.20, line 6)

[DDA, DPS, HEAD, HAD, LAD, and SPD]

“The **Strategic Assembly shall be a standing **Advisory Committee** of the Society consisting of: the members of the Board of Trustees; the Executive Officer; the **Chairs of any other standing Committees** or Advisory Committees; and the **chairs of the Divisions of the Society.**”** (AAS Bylaws, Article IV, Section 4.13). There are Board of Trustee liaisons to each **Committee**.

[CAPP, COMPASSE, CSMA, CSWA, SGMA, etc.]

Public Policy Methodology

- **Mission, Vision, Strategic Plan**
- [AAS Resolution](#) is a formal position statement by the Board. A resolution may include justification for the statement and/or an action. (Similar to APS Statements and AGU Position Statements.)
 - Rigorous approval process
 - Reviewed regularly
 - Work with other scientific societies
- **AAS Policy Action** is anything undertaken that does not require the adoption of a formal AAS Resolution.
 - Sign-on letter
 - Issuing a presidential statement of concern ([Message about the Scientific Community in Ukraine](#))
 - Issuing Action Alerts or calls to action
- **Public Statements**
 - Presidential Communications
- [Organizational Ethics and Policies](#) are set of guidelines and best practices for professional behavior
 - [AAS Code of Ethics](#)
 - [Anti-Harassment Policy](#) for AAS & Division Meetings & Activities

CAPP

Andrew J. Baker
Heather Bloemhard
Joel N. Bregman
Blake M. Bullock
Alberto Conti
Megan Donahue
Richard F. Green
Ryan C. Hickox
Kelsey E. Johnson
Emma M. Loudon
John S. Mulchaey
Dara J. Norman
John O'Meara
Rebecca Phillipson
Kurt D. Retherford
Britney E. Schmidt
Brian Welsch
Beth Willman

Co-chairs: Joel Bregman and Andrew Baker

AAS Staff: Bethany Johns and Yaswant Devarakonda

Mission: Support and develop policies that advance the astronomical sciences in the United States.

The committee shall:

- Maintain a high level of awareness of current developments in government science policies and funding.
- Formulate and carry out initiatives of an informational and advocacy nature with governmental agencies and congressional committees.
- Bring frequently to the attention of the Board of Trustees the results of its activities and possible courses of action that Board may take (provide advice upon request to the AAS President).
- Maintain liaison with other professional societies which are engaged in closely related informational activities.

CURRENT POLICY ISSUES

Constituents of NSF Facilities

FINDING

NSF's budget strategy for large research facilities is unsustainable, hinders scientific progress, and risks underutilizing its facilities.

GOAL

The scientific community must come together to urge the NSF to develop a new vision for supporting the design and development, construction, and operations and maintenance costs of its large facilities, while preserving an appropriate balance with funding foundational grants programs, to maintain American leadership in building world-class scientific facilities.

STRATEGIES

- The AAS, AURA, and AUI are committed to working together to solve this issue.
- Work with sister-societies to advocate for NSF Facilities
- NSF decisions on how it manages AST facilities will also impact all MPS facilities.

Age of Mid-scale Missions

Recommendation: The National Science Foundation should increase the funding available in its mid-scale programs that support astronomy and astrophysics with a target of reaching \$50 million per year for the combination of the Mid-Scale Innovations Program and the Mid-Scale Research Infrastructure Program.

Appropriations bills do not normally have directed language to support MSIP. However, the FY24 Appropriations bill includes support for Mid-scale RI-1, yet stops short of appropriating a specific amount of funds.

In 2023, NSF put out a call for Mid-scale RI-1 grants and since that call they have funded only five in 2023 and 2024 totaling about \$78 million, none of these awards went to astronomy mid-scale projects. There has not been a call for MSIP since 2019.

Decadals or Chaos

- Are the value of the decadals being called into question?
- Congressional delegation battle
 - More than 40 members of Congress from **California** have asked the White House in a Feb 1 [letter](#) to reverse cuts NASA has imposed on the Mars Sample Return (MSR) program, warning of job losses and a “decade of lost science.”
 - Nine Senators and Representatives from **Maryland** and **Virginia** implore colleagues in a Jan 9 [letter](#) to fund NASA Goddard Space Flight Center program priorities amidst impending budget cuts in FY24.
- Appropriations bill and NASA Budget clearly states HWO project office at GSFC.

Habitable Worlds Observatory.—The Senate report language regarding “Habitable Worlds Observatory” is adopted, and the agreement provides no less than \$10,000,000 for the mission. In addition, the agreement directs NASA to establish a Habitable Worlds Observatory project office at Goddard Space Flight Center to leverage existing expertise in astrophysics and segmented mirror technology.

FY24 Appropriations, Commerce, Justice, Science, and Related Agencies [Explanatory Statement](#)

Case Studies

SGMA

- Spring 2022 SGMA contacted Public Policy Office on their concerns of states actions against LGBTQ+ community, also received letter of concern from AAS members
- SGMA and CAPP joint policy memo on Anti-Transgender Legislation to Board on recommended actions
 - Update Resolution, May 2023
 - Endorsed AIP, APS, AAPT, Optica Venture Fund Proposal
 - Shared APS webinars
- SGMA webpages have resources to track this issue and inform membership

MSR

- Resolution, “Decadal Surveys Guide AAS Advocacy,”
- Public Policy Office informed DPS FRS of Senate language on MSR and recommended DPS draft a response
- DPS review draft letter, then refer to CAPP
- CAPP call with MSR IRB Chair, Orlando Figueroa, to be informed on issue
- CAPP review draft letter and advise AAS President



“The pursuit of science, and scientific excellence, is inseparable from the humans who animate it.”

-- Panel on the State of the Profession and Societal Impacts, Decadal Survey on Astronomy and Astrophysics 2020: Pathways to Discovery in Astronomy and Astrophysics for the 2020s

State of the Profession

- *The Profession vs. the Professional*
- Update the AAS Resolutions, e.g. International Collaboration
- 2024 AIP Annual Forum, March 21
When is it appropriate for societies speak out about issues facing society at large? Should professional associations only speak on issues affecting science? How can societies effectively respond to members' concerns?

“

NEVER DOUBT THAT A SMALL GROUP
OF THOUGHTFUL COMMITTED CITIZENS

**CAN CHANGE
THE WORLD;**

INDEED, IT IS THE ONLY THING THAT EVER HAS.

”

- Margaret Mead (1901-1978)

Questions?

Policy on Capitol Hill

Authorization Committees

Oversight of Depts. & Agencies: provide policy direction, permit new programs, recommend funding

Appropriation Committees

Provide the actual funding for government programs and agencies on an annual basis

	Authorizing Committee	Appropriations Subcommittee(s)
Department of Education	House Education and the Workforce Senate Health, Education, Labor, and Pensions	Labor, Health and Human Services, and Education
Dept. of Energy (DOE), Office of Science	House Science, Space & Technology Senate Energy & Natural Resources	Energy and Water Development
NSF, NASA, NOAA	House Science, Space & Technology Senate Commerce, Science, & Transportation	Commerce, Justice, & Science

Current Issues

Status of MSR, potential impact on NASA SMD

- Decadal priority, scientific importance
- Ensure balanced SMD and Planetary budgets, decadal said don't let MSR budget in any given year exceed 35% of PSD.
- IRB Response, led Sandra Connelly Deputy Associate Administrator for SMD, propose a path forward that balances the portfolio. Complete by March 2024.

NSF Facilities

- NSF's budget strategy for large research facilities is unsustainable, hinders scientific progress, and risks underutilizing its facilities.
- **P5 Report will be release in Dec**
- Senator Schatz asked NSF Director, Panch, "What are your plans for continuing the funding and the work to design TMT in fiscal '24?", "You have Astro 2020, you have a scientific review process...So where are you with FY25 and construction money for ELT?"

Dark and Quiet Skies

- Senator Hickenlooper, "It's not just the increase in objects that are out there, but it's the traffic and in many cases pose potential impacts to **astronomy**. How should the US balance maintaining our leadership in space with our obligations to making sure that we are maintaining a safe and operable space environment?"

Other Legislation

- Commercial Space legislation
 - In Aug, the House SST committee sent the AAS a draft bill for comment. We worked with COMPASSE to write a comprehensive set of comments that included general themes, such as consideration of ground and space-based government research assets when developing space policy, as well as specific, section-by-section comments.
 - The Senate CST requested input in developing a Commercial Space bill in Oct. We submitted comments based on our current advocacy messaging and reports, such as SATCON2 and Dark and Quiet Skies II.
- NASA Authorization
 - Senate Commerce, Science, and Transportation Chair, Sen. Maria Cantwell, said a multiyear NASA authorization was needed
 - House Committee on Science, Space, and Technology Authorization and Oversight Plan says, “The Committee will prioritize a NASA reauthorization bill”
- The Space Situational Awareness Transition Act of 2023
 - Establish a civil SSA capability under the Department of Commerce and provide new congressional oversight to support spaceflight safety and space sustainability. The bill would also support NASA research and development activities to help inform and improve space situational awareness.