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13 April 2021

Ambassador Marcia Bernicat
Acting Assistant Secretary
Bureau of Oceans and International Environmental and Scientific Affairs
U.S. Department of State

On behalf of the American Astronomical Society (AAS) and the U.S. National Committee for the International Astronomical Union, we write to express our endorsement of the "Dark and Quiet Skies for Science and Society Report and Recommendations" (DQS Report\*) for the United Nation's Office of Outer Space Affairs (UNOOSA). We ask that the U.S. State Department support the recommendations of the DQS Report at the U.N. The DQS Report is comprehensive in its scope, addressing critical and timely topics for the astronomical sciences like light pollution and its effect on the environment, satellite constellations, and use of the electromagnetic spectrum.

The Dark & Quiet Skies Conference Room Paper (CRP) is moving forward to the April U.N. sub-committee meeting, and we urge that the U.S. endorse it. This report represents a consensus by the astronomical scientific community on matters that threaten the future of our field. The National Science Foundation funded the DQS workshop that produced this CRP with the hope of seeing an impact at the U.N. The International Astronomical Union (IAU) was heavily involved in the preparation of the Dark Skies report as well. The report aims to inform international policy decisions that impact current and future investments in basic research, planetary defense, and the night sky as global common issues. We acknowledge that the larger topics of space debris, defense, and surveillance have concerned the U.S. for a long time. However, these have not yet been resolved, and we would like to emphasize the impact on observations from our outstanding facilities, most comprising large investments that are poised to make great discoveries about the universe for the benefit of all.

The cutting-edge technology and observatories that we use to understand the universe depend on a dark and quiet sky at all wavelengths of the electromagnetic spectrum. Increasingly, this scientific access is being eroded by competing interests. If we wish to continue studying the universe and benefit from the technological advances the astronomical sciences provide, we must update international policy to protect the use of the night sky for science. At the same time, we recognize that the sky does not belong just to the scientists, and we feel it is in humanity's best interest to preserve the sky and space as a global commons, so that no one stakeholder can prevent future access for others.

The AAS has also endorsed the Satellite Constellations Workshop 1 Report. We participated in this workshop and hosted a press briefing for the report. Both reports come from a collaboration between the scientific community and the satellite operators. The AAS has been

<sup>\*</sup> Report located at <a href="https://www.iau.org/static/publications/dqskies-book-29-12-20.pdf">https://www.iau.org/static/publications/dqskies-book-29-12-20.pdf</a>.

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in constant contact with SpaceX since the first Starlink launch in early 2019, and more recently via meeting with OneWeb and Amazon.

The AAS has been heavily involved in these issues of satellite constellations and their impact on astronomical observations from the ground and space, advocating on this topic for two years by speaking with OSTP, the NSC, Congressional staffers, the Office of Space Commerce, the FAA, the FCC, and the Biden transition team. The AAS hosted a meeting of ground based OIR observatory directors to discuss impacts by satellite constellations and issued a survey of observatories to measure those impacts. The AAS has also hosted several special sessions on the topic of satellite constellations at our annual meetings and two webinars with the Satellite Industry Association aimed at the satellite industry.

The International Astronomical Union also has been very concerned about Dark and Quiet Skies. The United States adheres to the IAU through the National Academy of Sciences (NAS), and the U.S. National Committee for the IAU, housed at the NAS, works in cooperation with the AAS to provide national level coordination within the IAU. Debra Elmegreen, Professor of Astronomy and the Maria Mitchell Chair at Vassar College currently serves as President-elect of IAU. Furthermore, 21.5 percent of the IAU's individual members are from the United States. Funding for the U.S. membership in IAU is provided by the National Science Foundation. As a result, the nation makes a significant scientific and financial investment in IAU and is closely involved with its work.

We encourage U.S. leadership on these important issues. The AAS and USNC/IAU hope that the State Department will support the DQS CRP at the U.N. meeting in April. This is a global issue that must be addressed by international bodies, with the U.S. playing a large role as the nation where many of these satellites are launched and operated.

Sincerely,

Paula Szkody

President, AAS

Paula Sphody

Chryssa Kouveliotou Chair, USNC/IAU