

Statement by the International Astronomical Union The 62nd Session of the Scientific and Technical Subcommittee of COPUOS

Agenda item 15: Dark and quiet skies, astronomy and large constellations: addressing emerging issues and challenges.

Madame Chair, distinguished Delegates,

The International Astronomical Union is committed to achieving a mode of coexistence that represents a fair compromise between the increasing population of satellites in Low Earth Orbit and the need to protect the science of astronomy and society in general from interference by satellite constellations.

Indeed, the latter continues to be the subject of major attention by the IAU, and I am pleased to report encouraging progress by the IAU Centre for the Protection of Dark and Quiet Sky (or CPS), which is fostering collaboration between the astronomical community at large and satellite companies for studying and implementing mitigating measures of the constellations' impact.

Even though the current results are encouraging, the fast evolution of the situation and the entry into operation of new constellations make it important that all COPUOS Delegations are kept apprised of the challenges that the increasing number of objects in LEO is posing to the progress of science, and of the actions that Member States can take in the near term to enable more effective mitigation of impacts on astronomical observations.

For this reason, the IAU has co-signed and fully supports Conference Room Paper 22 presented by the Group of Friends on "Dark and Quiet Skies for Science and Society", which summarizes the current status of impacts on observations and science, discusses the effectiveness of current mitigation techniques, and points to several areas where additional research is required to inform astronomers, the satellite industry and policy makers about the most effective ways forward.

The IAU is grateful for the leadership of the Permanent Missions of Chile and Spain in making the Group of Friends a collegial and productive alliance on this issue. The Group of

Friends established an effective Focus Group of international experts from academia, industry and national governments to develop the content of the impactful Conference Room Paper. The side event on Wednesday, February 5th, was an excellent opportunity for all Delegations to learn more about the purpose and scope of the Group of Friends.

The advancements in understanding, many of which are fostered by the IAU CPS, have led to the identification in the CRP of several areas in which immediate support of research would be highly beneficial:

- Increasing the accuracy of predictions of position and optical brightness for observation planning and interpretation.
- Taking steps to reduce optical brightness from reflected sunlight.
- Understanding the impact on observations of launches, operations and re-entries.
- New technologies and approaches to mitigate impacts.
- Collaboration and consultation with commercial or non-governmental satellite operators and manufacturers through fora, meetings and other information exchange and publication.

The IAU urges Member States to consider seriously the practical recommendations of the CRP. We also note the opportunity for astronomers, industry and policy makers to continue their interaction in the upcoming workshop co-sponsored by UNOOSA and the Square Kilometre Array Observatory, to be held in Jodrell Bank, UK, during the week of October 27th.

In addition, the IAU notes that there is no means of mitigating the potential harm to astronomy of obtrusive space advertising. It represents the ultimate light trespass because its purpose is to be visible as widely as possible on the surface of the Earth. The IAU urges COPUOS national delegations to consider a prohibition on this technology that creates the risk of unwanted messaging and disruption of the dark night sky.

Thank you for your kind attention