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English only

Committee on the Peaceful Uses of Outer Space Scientific and Technical Subcommittee Sixty-first session Vienna, 29 January–9 February 2024 Item 12 of the provisional agenda^{**} Future role and method of work of the Committee

Conference Room Paper on the Protection of Dark and Quiet Skies for science and society

Presented by Argentina, Austria, Belgium, Bulgaria, Chile, Colombia, Czechia, Denmark, Ecuador, Germany, Italy, Netherlands (Kingdom of the), Paraguay, Peru, Slovakia, South Africa, Spain, Switzerland, European Astronomical Society, European Astronomical Research in the Southern Hemisphere, International Astronomical Union and Square Kilometre Array Observatory

I. Introduction

1. At the sixty-sixth session of the Committee on the Peaceful Uses of Outer Space, the Committee requested the Scientific and Technical Subcommittee to consider at its sixty-first session, in 2024, under the item entitled "Future role and method of work of the Committee", the scope, duration and title of an agenda item related to dark and quiet skies and large constellations, with a view to recommending the item to the Committee, at its sixty-seventh session, for inclusion on the agenda of the Subcommittee.

2. The deployment of satellite constellations in low Earth orbit (LEO) may represent a valuable step forward in providing the benefits of outer space to communities around the world. However, their large number, their sun-reflected luminosity and their radio-frequency emissions can have a serious impact on astronomical observations as well as on the pristine appearance of the night sky.

3. Issues related to "Dark and Quiet Skies" have been raised to the attention of the Subcommittee since its fifty-seventh session and continued in the Subcommittee sessions fifty-eighth, fifty-ninth and sixtieth, as well in the Committee sessions sixty-fifth and sixty-sixth. During those sessions, delegations emphasized the importance of these issues to science and society. In particular, the impact of the large

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satellite constellations on astronomy and on the visibility of the night sky was discussed during the sixtieth session of the Committee under the single issue/item 17 entitled "General exchanges of views on dark and quiet skies for science and society" (A/AC.105/1279).

4. The large number of delegations that made statements under agenda item 17 demonstrates that the issue of Dark and Quiet Skies for science and society is an important one and deserves the attention of the Committee and its Subcommittees.

5. Following the recommendations contained in the Report of the Subcommittee on its fifty-eighth session, the Centre for the Protection of the Dark and Quiet Sky from Satellite Constellation Interference (CPS) of the International Astronomical Union continues to engage in discussions with all the stakeholders for studying and implementing mitigating measures of the constellations' impact. The results so far achieved are detailed in the Technical Presentation "Cooperation to protect Dark and Quiet Skies, outcomes of the IAU Symposium 385 – Astronomy and Satellite Constellations: pathways forward".

6. Even though the current results are encouraging, the fast evolution of the situation and the entry in operation of new constellations, makes it important that all delegations to the Committee are kept aware of the challenges that the increasing number of objects in the LEO shell is posing to the progress of science and they should be encouraged to adequately and fully express their position on this complex matter.

II. Concluding remarks

7. For the reasons set out above, it is proposed to introduce a single item in the agenda of the next three sessions of the Scientific and Technical Subcommittee in 2025, 2026, and 2027, entitled "Exchange of views on Dark and Quiet Skies for science and society", with a scope to discuss the effects of large constellations of satellites on astronomy and the night sky.

8. The delegations to the Subcommittee are respectfully asked to support this proposal which we believe can achieve consensus.