

Statement – Australia

60th Scientific and Technical Subcommittee

Agenda item 17 – General exchange of views on dark and quiet skies for science and society

Thank you Chair, distinguished delegates.

Australia appreciates this opportunity to share its views on the topic of dark and quiet skies for science and society.

The inclusion of this item in this year's agenda is an opportunity to provide an update on relevant Australian space and astronomy activities, and our review of current national measures for the protection of observing conditions for such activities.

Civil space and astronomy

Chair,

Australia has both a growing civil space sector, and strong research capabilities in astronomy, supported by world-class infrastructure.

The Australian Government has tasked the Australian Space Agency with implementing measures and conditions to grow Australia's civil space sector.

This includes the regulation of Australian civil space activities, such as the launch of objects into outer space. To date, a number of satellite constellations have been launched by Australian nationals. For example, constellation M2, comprised of two satellites, launched in March 2021 to test systems such as decoupling, artificial intelligence and space situational awareness capabilities. More recently, constellation Block II, comprised of five satellites, was launched. Constellation Block II is a technology demonstrator and pathfinder for the roll-out of a space-based Air Traffic Management system.

Australia also continues to advance investments in optical and radio astronomy and their underpinning ground-based infrastructure. Australia's Strategic Partnership with the European Southern Observatory, which commenced in 2017, enables Australian astronomers to access the world's most advanced suite of optical telescopes and instruments. The Strategic Partnership leverages Australian infrastructure and world-leading instrumentation expertise.

Additionally, as a member of the SKA Observatory, Australia is involved in intergovernmental efforts to build world-leading radio telescopes. The SKA Observatory has commenced construction of the SKA-Low telescope on Wajarri Yamaji Country in Western Australia. The site is now known as Inyarrimanha Ilgari Bundara, the CSIRO Murchison Radio-astronomy Observatory. Inyarrimanha Ilgari Bundara means “sharing the sky and stars”. Australia looks forward to sharing the journey of this global project.

Protecting observing conditions for astronomy

Chair,

Australia strives to develop and implement ‘best practice’ measures to protect observing conditions and safeguard its infrastructure investments in optical and radio astronomy in defined zones.

In line with this approach, Australia has been undertaking an examination of current domestic measures – legislative, policy or otherwise – against the recommendations in the Dark and Quiet Skies Conference Reports. To date, this work has included a review of current national measures for the protection of observing conditions, with a view to assessing whether Australian practices may meet the recommendations.

Early assessment of this review indicates that Australia has implemented a range of terrestrial-based measures to protect observing conditions for optical and radio astronomy, in defined zones. However, there may be scope for consideration of further potential measures to protect observing conditions.

This work is ongoing, and we look forward to sharing our progress with the Subcommittee in due course.

Delegations wishing to learn more about Australia’s approach to protecting observing conditions are encouraged to refer to the technical presentation delivered by Prof Fred Watson AM and published to the UNOOSA website.

Dark and quiet skies at COPUOS

Chair,

Australia continues to be supportive of discussions that bring together stakeholders to develop practical solutions that seek to address unintended impacts of satellite constellations on astronomy.

Australia supports the proposal presented by Chile, Spain, Slovakia, Bulgaria, Dominican Republic, South Africa, the International Astronomical Union, European Southern Observatory, and the SKA Observatory for the maintenance of this agenda item, and the creation of an expert group.

Australia is considering the proposal, and supports discussions that bring stakeholders together.

Conclusion

Chair,

We look forward to the exchange of views on dark and quiet skies continuing within this Subcommittee.

Thank you.