Item 3: General Exchange of Views

Madam Chair,

I would first like to acknowledge your work as Chair, and the ongoing work of the Secretariat under Simonetta di Pippo's leadership, especially in the face of the unique and difficult year since we met last. In particular, we commend Niklas Hedman and his team for their tireless effort to organise this session, so that the STSC can continue its work despite the global pandemic.

New Zealand continues to value the opportunity to be able to contribute alongside, and learn from, our distinguished colleagues in this Committee.

New Zealand is committed to taking a safe, sustainable and responsible approach to space activities. As our space industry grows, New Zealand is seeking to:

- Open access to space;
- Apply data in innovative ways to shared challenges; and
- Take a pioneering and transparent government approach.

As I provide an update on New Zealand's space activities, I want to focus particularly on the first of these objectives; opening access to space**,** for all,

Commercial launch provider, Rocket Lab, has maintained its high pace of launches from New Zealand despite the impacts of COVID-19. Since March 2020, Rocket Lab has conducted 8 launches from its launch facility in the Māhia Peninsula.

These launch activities enable a diverse range of customers to access space, including remote sensing companies, universities, and other space agencies.

In a world first, another New Zealand-grown launch company, Dawn Aerospace, received a license to operate a sub-orbital, autonomous space plane from a conventional airport in New Zealand, which would enable multiple launches into orbit in one day, further opening new opportunities for frequent access to space.

We are also supporting other technologies that are critical for sustainable access to space. An example of this is our recent announcement of deepening aerospace research collaboration with Germany's Aerospace Centre. Just last week, New Zealand and Germany announced collaboration on three areas of space technology: propulsion, space communications, and remote sensing.

These research areas build on our ongoing support to lift space situational awareness: in 2019, the LeoLabs Kiwi Space Radar became operational, enabling the measuring of debris and satellites as small as 2cm in Low Earth orbit. New Zealand continues to believe in the important role that the private sector will play in promoting the sustainable use of space.

We are working with NGO Environmental Defence Fund to develop, launch and operate New Zealand's first national space mission, MethaneSat. MethaneSat will monitor methane emissions as part of our government's wider commitment to addressing climate change.

Our approach to space permitting

In 2019, New Zealand agreed that our space activities would be guided by the three overarching principles: safety, sustainability and responsibility. These principles have continued to guide our decisions in relation to every satellite launched from New Zealand, many of which are experimental and highly unique.

In addition to these principles, we have also committed to ensuring that launch activities conducted from New Zealand are not contrary to our policies and values; and do not breach New Zealand and International laws.

As a party to the Registration convention we are committed to transparency in our use of Outer Space. We have worked closely with UNOOSA to ensure we register our space objects in an efficient and timely manner.

In addition we proactively release more detailed information about the space objects we launch on the New Zealand Space agency website, including information about their mission and purpose.

Dark and quiet skies

New Zealand recognises the value of Astronomy and the night sky to people worldwide. In principle we agree that the science of Astronomy and the visible night sky will be impacted by the current planned growth of low earth orbit satellite constellations.

We also recognise the value that the growing market of space enabled services can provide, and we note that global coordination will be required to address this situation.

We thank the authors and co-sponsors who have developed recommendations in the conference room paper entitled, 'Recommendations to Keep Dark and Quiet Skies for Science and Society', and we appreciate the clear metrics and goals they have outlined. We also thank the space industry for engaging with this issue and participating in developing and trialling mitigations.

While we support further consideration of this report we recognise the interconnected nature of these issues and we consider that some may be better served with involvement from other bodies such as the International Telecommunications Union.

To inform states' discussion of this issue in any forum, we consider that future work on this area by the International Astronomical Union, or by industry, could usefully focus on consideration and development of:

- Ready-made analytical tools for satellite operators and regulators to assess reflectivity and brightness at all stages of mission.
- Best-practice guidance on satellite design and materials to address reflectivity on orbit. These should incorporate any trade-offs and other impacts.
- Guidance for applying existing Space Situational Awareness data by astronomers and other actors seeking to mitigate impacts of satellites on astronomy.

We look forward to working with members of the IAU and international partners to better understand the technical aspects of this problem and how they interact with other space sustainability issues.

Reference to other work underway in other multilateral forums

To finish, we would like to acknowledge the important work underway in other multilateral forums which will make an important contribution to what we are trying to achieve here in COPUOS and its subcommittees. I want to highlight two in particular:

1. the ongoing work in the International Telecommunications Union, which has an important impact on space sustainability through its management of spectrum rights for constellations; and

2. UN Resolution 75-36, on 'Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviours', which has the sustainability of outer space at its core.

New Zealand acknowledges the importance of these pieces of work while also noting the importance for COPUOS to stay focused on its core areas of competence around the peaceful uses of outer space.

Close

Thank you Madam Chair.