

## Item 12: Long-term sustainability of outer space activities

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Madam Chair,

We welcomed the agreement on the preamble and 21 Long-term Sustainability Guidelines as a significant achievement of international cooperation. The ability for COPUOS to agree these guidelines shows the value of a multilateral approach to space sustainability and we hope that in this session of the Sub-Committee, we can regain the momentum that we achieved when we collectively agreed the Guidelines.

As host to a commercial launch service, New Zealand takes our responsibilities as a 'gateway to space' seriously. For this reason, our space activities are guided by the principles of: safety, responsibility, and sustainability, and our application of these principles is informed by the Long-term Sustainability Guidelines.

New Zealand is already working quickly to implement the guidelines in our space regulatory regime. We have carried out an initial assessment of our law and practices to ensure that we are acting consistently with the guidelines and we are satisfied this is the case.

All space objects that are launched from New Zealand are required to have an orbital debris mitigation plan that meets international standards. In addition, we cannot launch space objects from New Zealand unless we have an agreement that they will be registered either by the country that procures the launch of the object or we intend to register them ourselves.

### LTS 2.0 Working Group

There is no doubt about the urgency and importance of building on the agreement of the guidelines. We very much welcome the establishment of the LTS 2.0 working group which will ensure that we can learn from the experiences of other States about effective implementation of the guidelines, and identify challenges and areas where further guidelines may be warranted.

We would like to thank Ms. Pontsho Maruping of South Africa, and the Secretariat, for their continued support of the process towards the establishment of a new Working Group. We would also like to thank Japan and Switzerland, who have demonstrated their flexibility and leadership by agreeing to withdraw candidates in order to facilitate consensus on the bureau.

New Zealand has co-sponsored, alongside a number of countries, a proposal on a Terms of Reference, Method of Work, and Workplan for the establishment of the LTS working group, which we believe provides a practical roadmap for the working group. We see as four necessary components for this working group:

- Discussing effective implementation of the voluntary guidelines at the national level.
- Developing a process to facilitate international cooperation, information sharing, and capacity building on implementing the guidelines.
- Acknowledging and integrating industry's views.
- Reflecting on lessons learned from implementation, including any additional areas where new guidelines may be necessary.

### Example of New Zealand's implementation of the Guidelines

In the spirit of information sharing, we would like to offer a practical example of how New Zealand is implementing the Guidelines.

To meet our obligations for 'continuing supervision' of national space activities (Guideline A.3), the New Zealand Space Agency sought a way to monitor objects launched from New Zealand and verify that they are being operated safely and in accordance with the conditions of their permit.

New Zealand collaborated with LeoLabs, a commercial radar tracking service provider for objects in Low Earth Orbit, to create a Space Regulatory and Sustainability Platform. A first of its kind among space agencies, this platform enables the New Zealand Space Agency to:

- track and monitor objects launched from New Zealand, in real time, using the LeoLabs radar network;
- set regulatory limits for specific objects and receive automated alerts when an object is outside of any prescribed parameters;
- record object behaviour over time, and build a picture of New Zealand's "catalogue", both historical and current.

We welcome others sharing their experiences of implementing the Guidelines.

### Dark and quiet skies

New Zealand recognises the value of Astronomy and the night sky to humans worldwide. In principle we agree that the science of Astronomy and the visible night sky will be impacted by the current planned growth of LEO 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 scientists and researchers who have developed recommendations in the CRP 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 ITU.

To inform states' discussion of this issue in any forum, we consider that future work on this area by the IAU 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.

### Closing

Thank you, Chair