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Consultation on Five-year spectrum outlook 2023–28 and 2023–24 work program

Dear Linda,

The Australian Space Agency (the Agency) welcomes the opportunity to provide feedback on the Five-year spectrum outlook (FYSO) draft 2023–28 and 2023–24 work program.

The Agency is the primary source of advice to the Australian Government on all civil space matters and is responsible for whole-of-government coordination of civil space activities. In our review of the draft FYSO 2023-28 within this remit, there have been several points of interest noted. The Agency's key comments as in order of context presented in the draft are as follows:

1. Section on Regional Connectivity, pg.10: Regarding the **Low Earth Orbit Satellite Working Group (LEOSatWG)** and its aim to continue meeting to provide advice and feedback to the government on possible regulatory reforms to support industry and address key considerations spanning:
 - how satellites can help close the digital inclusion gap, particularly in relation to First Nations peoples (consistent with Closing the Gap Target 17);
 - how satellites can support greater resilience and redundancy in emergency circumstances;
 - using satellites to deliver universal telecommunications services; and
 - the economic benefit that could come from greater LEO satellite use, including by facilitating the IoT.

The Agency notes that it has offered its support to the Department of Infrastructure, Transport, Regional Development, Communications and the Arts as subject matter expert in space and space communications. The Agency will continue to attend the LEOSatWG meetings as an Observer member, noting that LEO satellite services was identified as a focus segment in the Agency's Communications Technologies and Services Roadmap published in 2020.

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2. Section on Spectrum Management, pg.13: Regarding reference to the **delivery of a modernised spectrum licence system** over the coming years, the Agency notes optical (infrared) communications and laser ranging interests for space-based applications are on the rise and may need to be included as part of this revision. The Agency notes that stakeholders in this area seek clarity on the licensing process required for establishing their ground equipment in Australia, including locations where it may not be permissible (e.g. near to Defence bases or airports). Any such documentation to help guide prospective stakeholders in this regard would be a helpful reference. However, given Australia are noted to be the only Member State regulating infrared spectrum, due precaution needs to be taken to ensure potential national/international stakeholders are not discouraged by the obligations.
3. Section on Ongoing Regulatory Improvements, pg.13: Regarding **ongoing regulatory improvements**, there is a mention to bring radiocommunications equipment regulation into the equipment rules framework and as part of that body of work the *Radiocommunications Equipment (General) Rules 2021* has been made. The Agency is interested to understand whether there is (or will be) similar documentation being developed that allows the ACMA to enforce equipment compliance for optical (infrared) communications for space applications, with a view that this could also form a guideline for future quantum communications take-up in the space/earth technology ecosystem.
4. Section on Satellite Communications, pg. 20: Regarding the review of **new satellite system filing procedures**, the Agency strongly supports these developments in recognising the need to provide a more flexible, contemporary approach that supports growth of the Australian space ecosystem while meeting the ACMA's regulatory obligations.
5. Section on 2300-2302 MHz, pg. 38: Regarding the competing interests for **use of the 2300–2302 MHz band** from incumbent and new services, the Agency notes this band is in the initial investigation stage ahead of FYSO 2024–29. The Agency is interested in developments for the 2300-2302 MHz band for the stated earth-moon-earth communications and welcomes opportunities to provide input to this development.
6. Section on Satellite Planning, pg.57: Regarding **RALI MS 43**, providing simplified coordination procedures between the earth stations at the European Space Agency (ESA), the Agency notes the indicated 2022 consultation. Through its ongoing engagements with ESA and its International Space Investment Open Doors financial support for the expansion of the New Norcia ground station, the Agency welcomes opportunities to provide future input into any spectrum matters related to the ESA New Norcia site.
7. Section on Satellite Planning, pg. 58: Regarding “Activities planned for 2023-24” there is a point covering the consideration of “whether changes are required to **licensing procedures for space-based communications** to support development”. The Agency notes that its references to space-based optical (infrared) communications above may be considered as an

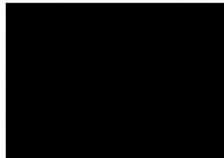


extension to this aim assuming that the changes in licensing procedures referred only apply to radiocommunications at this time.

8. Section on Satellite Planning, pg. 58: The Agency acknowledges the ACMA's continued participation in the Space Coordination Committee in support of the development of the Australian space sector.

The Agency is happy to clarify our feedback and looks forward to continuing our fruitful relationship with the ACMA.

Yours sincerely



Aude Vignelles
Chief Technology Officer, Australian Space Agency

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