



The Manager
Space Systems Section
Australian Communications and Media Authority
PO Box 78
Belconnen ACT 2616

C/o: satellite.coordination@acma.gov.au

18 October 2023

Dear Sir/Madam,

RE: Review of Australian satellite filing procedures

EchoStar Global Australia Pty Ltd welcomes the opportunity to make a submission to the ACMA on its review of Australian satellite filing procedures.

EchoStar Global Australia is an Australian mobile satellite service low earth orbit satellite operator in the 1980-2010 MHz and 2170-2200 MHz band (2 GHz band). We hold International Telecommunications Union (ITU) spectrum rights through our Australian Sirion-1 ITU filing. This filing is being brought into use for a non-geostationary orbit MSS S band satellite network named Lyra.

EchoStar Global Australia has contracted Astro Digital, a renowned satellite manufacturer, to manufacture four satellites as part of this network and has entered into launch contracts with SpaceX for deployment in 2024. This effort will be an important step towards bringing innovative Non-Terrestrial Network (NTN) Services to Australia and the globe.

EchoStar Global Australia's parent company, EchoStar Corporation (EchoStar) and its subsidiaries have over fifty years' experience in the satellite industry as an operator, technology provider, system integrator and ground infrastructure manufacturer. EchoStar has been the world leader in satellite technology, launching the first commercial broadband satellite in 2008. Since then, EchoStar has continued to lead the way in both fixed satellite and mobile satellite communications. For example, in July, EchoStar constructed, launched and brought into operation Jupiter 3, the largest geostationary satellite ever deployed. This high-capacity broadband satellite complements the existing Jupiter network to provide high-speed, innovative broadband services throughout the Americas.

EchoStar has also been at the leading edge of mobile satellite services (MSS). For years, EchoStar has led the manufacture of mobile devices and network systems, including for Iridium, Inmarsat and GlobalStar, as well as supporting its own S band networks in the Americas and in Europe.

EchoStar and its affiliates today operate three S band satellite networks in Europe and the Americas to support innovative MSS services such as Internet of Things (IoT) and 3GPP-NTN services. This includes direct-to-device services. EchoStar Corporation is also running urban air mobility tests.

EchoStar Global Australia Pty Ltd

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EchoStar has been a leader in S band technology and has worked with 3GPP and other standards bodies to advance the inclusion of S band in 5G and beyond standards. With the inclusion of S band into the 3GPP Release 17 standard and completion of Release 18 expected shortly, we expect the eco-system for S band to become increasingly mature in the next couple of years, allowing EchoStar to bring S band NTN services and connectivity to Australia, especially in rural and remote areas, and the globe.

EchoStar Global Australia therefore has a keen interest in Australian satellite filing procedures and supports the ACMA's efforts to provide clarity and certainty for satellite operators wishing to submit Australian satellite filings to the ITU.

While EchoStar Global Australia have not addressed all the matters covered in the ACMA's review of Australian satellite filing procedures consultation, the areas we have focused on in this submission include:

- Allowing organisations with a current Australian filing to continue operating under existing satellite filing rules and procedures.
- Limiting coordination requirements to existing Australian satellites that have been brought into use.
- Establishing a more flexible regime for the deployment of NGSO constellations.
- Providing a point of contact for coordination purposes being made mandatory for all Australian operators and applicants.
- Allowing the flow of vital coordination information between an Australian subsidiary and its parent company.
- Establishing a realistic framework to determine the benefits to Australia by the submission of a satellite filing.

These areas are further addressed under the following sections of the ACMA's 'Australian satellite filing procedures - Draft for consultation' paper.

Section 1.3 - Scope

As the ACMA recognises in its consultation paper, it is critical that satellite operators have certainty around the requirements to develop a satellite network. Accordingly, it is crucial that licensing and related rules are not changed once an operator holds an ITU filing. The ACMA needs to provide certainty to existing Australian satellite operators who hold an ITU filing by allowing them to continue operating under current existing satellite filing rules and procedures.

EchoStar Global Australia therefore suggests that the ACMA includes the following sentence at the end of Section 1.3:

Australian operators with an existing ITU filing for a satellite system that was approved by the ACMA before September 2023 will continue to operate under the requirements, policies and procedures that are outlined in the ACMA's Australian procedures for the coordination and notification of satellite systems dated January 2012.



Section 2.3. - Before you apply

Section 3.6. - Coordination with Australian satellite systems

Coordination of satellite networks is a time and resource intensive effort. While it is understandable that the ACMA would want a new applicant to coordinate their proposed ITU filing with existing Australian filings that have been brought into use, it seems unnecessary and unduly burdensome to extend this requirement to filings that have not yet been brought into use.

Therefore, we recommend that the first paragraph of subsection 2.3.2 - Initiate coordination with other Australian satellite systems, be amended as follows.

In cases where any part of a satellite system to be included in the application has frequency overlap with an existing Australian satellite system already brought into use, an assessment of the potential for interference needs to be made and if necessary, coordination activities with all potentially affected Australian satellite operators needs to commence before the application is lodged with the ACMA.

EchoStar Global Australia also recommends the following amendments to subsection 3.6.2 - Failure to coordinate between Australian satellite operators.

Coordination between Australia satellite systems already brought into use will need to be completed before bringing the frequency assignments of the satellite filing into use. The ACMA will not advise the ITU that a satellite system has been brought into use until coordination agreements are reached with all Australian satellite systems already brought into use and a copy of each agreement is provided to the ACMA.

The ACMA's policy is to not permit frequency assignments of a satellite system to be brought into use where domestic coordination with previously Australian satellite systems brought into use is outstanding. This policy only applies to the relevant frequency assignments for which coordination is outstanding, not the entire satellite system.

For operators to coordinate with one another and meet the proposed requirements of Section 2.3, it is critical that operators provide a technical point of contact. Failure to have this information available could make it impossible for the new applicant to meet its obligations under Section 2.3.1. Therefore, we recommend that the ACMA requires, as part of a satellite application, a technical point of contact be provided to the ACMA.

To accomplish this, we suggest the ACMA modify the second paragraph of subsection 2.3.2 as follows.

Applicants who do not have contact details for Australian satellite operators should contact the ACMA. Australian operators and applicants must provide a technical point of contact for other operators to utilise for coordination purposes.



Section 2.5. - How we assess an application

It is critical that the ACMA allow operators the opportunity to amend their application within a reasonable time frame and not have to resubmit the whole application. This is a common practice by other regulators and results in less work for the operator and the regulator. For the operator, it means they don't have to repeat the whole application process and for the regulator, they only need to go through a review process one time for the entire application.

EchoStar Global Australia recommends the ACMA modify subsection 2.5.1 - Review for completeness, to allow for applicants to provide any missing information/documentation within a reasonable time, instead of returning the application. We recommend the ACMA modify the subsection to read:

The ACMA will review applications to determine if all required information has been supplied. If the ACMA finds that the application is incomplete, the ACMA will require the applicant to submit any missing items. The applicant will have 60 days to submit, otherwise the application will be returned to the operator without assessment.

EchoStar Global Australia is concerned with the ACMA's proposal that requires a satellite operator to modify or file updated ITU filings based on the deployment of its satellite networks. It is common practice for NGSO networks to be modified over time as services are developed and additional capabilities for the network are required.¹ By relying on their existing ITU filings, satellite operators have the long-term certainty to bring a robust satellite system into operation. Accordingly, we urge the ACMA to provide NGSO operators flexibility on the deployment of their satellite networks and delete the fourth point under subsection 2.5.4 - Conditions of approval, that reads:

If the implementation of an NGSO satellite constellation differs from the original application in any detail (such as number of satellites, orbital height, inclination), an appropriate modification of the ITU satellite filing may be required to reflect the implemented NGSO satellite constellation. Depending on the circumstances, this may require the satellite operator to submit a new filing request.

In relation to NGSO milestones, we believe the consultation is unclear on whether ITU or additional milestones will be applied to a satellite network. An operator should only be required to comply with all relevant ITU milestones. Therefore, we recommend the ACMA modify the third point in Section 2.5.4 - Conditions of approval, as follows:

If the application to file an NGSO satellite constellation is approved, the ACMA will enforce any applicable milestone regime established in the ITU Radio Regulations for the realisation of the entire constellation.

¹ There are examples of both Fixed Mobile Satellite NGSO operators, who have evolved their systems over times in response to increasing demands for capacity and capabilities without their ITU rights being modified to reflect their initial deployments. This has provided the certainty they need to raise capital to support this network evolution.



Section 3.2 - Australian jurisdiction

Section 4.3 - On-going obligations of the satellite operator

In most, if not all companies, functions are shared across subsidiaries. Accordingly, it is not reasonable for companies not to share information across functions. However, it is reasonable for such information to be treated as confidential. Therefore, EchoStar Global Australia recommends the ACMA replace the second point in Section 3.2 - Australian jurisdiction, with:

Access to confidential information about other Australian satellite operators if shared outside the applicant in the company must be treated as confidential and used only for the purposes of coordination.

And modify Section 4.3 as follows:

If the satellite operator is a subsidiary of, or controlled by, a foreign entity, it must ensure that confidential satellite information about another Australian satellite operator is treated accordingly in the case such information needs to be shared with the associated foreign entity (including staff of the foreign entity).

Section 3.5 - Australian benefit

Section 4.10 - Support conditional on a substantial benefit to Australia

While it is reasonable for the ACMA to require that a satellite filing benefits Australia and is included in the service area of a proposed satellite system, requiring that the benefit be 'substantive' or 'substantial' is too restrictive and could drive investment away from Australia.

EchoStar Global Australia believes the criteria, while appearing simple in essence, is cumbersome and has caused some operators to file through other administrations, even when the filing would have benefited Australia.

The requirements and examples outlined in Section 3.5 such as:

- a substantial benefit that is limited to that derived from the use of the radiofrequency spectrum;
- information about the proportion of service capacity provided to Australia compared to the proportion provided abroad (if applicable) needs to be included along with a justification for such a service area;
- the provision of a majority of a satellite service's capacity being provided to Australians;

cannot be met during the application phase due to ACMA's own subsequent conditions under subsection 2.5.4 - Conditions of approval, which state that:

'Approval to file does not in any way imply that the ACMA will issue radiocommunications licences providing authorisation for the applicant to provide a service within Australia's territory.'



This being the case, how can an operator demonstrate a substantial benefit to Australia, a proportion of service capacity be provided to Australia, or the majority of a satellite's service capacity is provided to Australian's without having obtained a service license?

Based on EchoStar Corporation's comprehensive insights into the global satellite industry, we understand how a GEO operator might be able to meet the requirement of providing a majority of the services capacity to Australians, however, we would be astounded if any NGSO operator with global service plans could provide a majority of the services capacity to Australia.

Given the restrictive nature of the wording and requirements in Section 3.5, EchoStar Global Australia recommends the ACMA modify this section to read:

The services that would be provided by the proposed satellite system, should it be brought into use, must:

- *provide benefits to the Australian public that:*
 - *are limited to that derived from the use of the radiofrequency spectrum;*
 - *aligns with the object of the Radiocommunications Act; and*
- *include Australia in the service area of the proposed satellite system.*

Applicants must provide detailed claims against this assessment criterion. Examples of services that might be considered to provide Australian benefits include:

- *the provision of a satellite service's capacity to Australians, particularly if this meets the needs of consumers that are under-served or not served.*
- *a service that assists the Australian Government (or government agency) in performing its activities.*
- *radiocommunications links to be used by recognised research bodies for the purposes of scientific research or environmental monitoring, or by Australian industries providing commercial services either exclusively into Australia or into other countries in addition to Australia.*

We also note subsection 3.5.1. Non-qualifying benefits could be perceived as discouraging investment in Australia. We believe that any investment in satellite related infrastructure, initiatives that will grow a company and its workforce in Australia or the provision of third-party services to help build and deliver a satellite system should be viewed positively by the ACMA and seen as benefiting Australia. Therefore, we recommend subsection 3.5.1. Non-qualifying benefits should be removed.

We also recommend Subsection 3.5.2. Consideration of past performance is removed.

It is surprising to see in Section 4.10 - Support conditional on a substantial benefit to Australia, that the ACMA is also proposing that it may not support an operators request to maintain an ITU filing unless there is a substantial benefit to Australia. As indicated, it is not always certain what will or will not ultimately benefit Australia.



It is possible that an operator who files through Australia will not obtain a service license (Australian market access) even if they have fully met all requirements of their ITU filing. It will be exceedingly difficult for any operator to demonstrate that obtaining support from the ACMA, for instance in the coordination process, will provide a substantial benefit to Australia. However, failure of an operator to obtain the ACMA's support could negatively impact benefits, including investment, in Australia. Therefore, we recommend that ACMA remove Section 4.10.

Review of findings / further consultation

Given that there was no discussion with existing Australia satellite operators prior to this consultation, the substantial changes that the ACMA is recommending to the Australian Satellite Filing Procedures and the extensive recommendations EchoStar Global Australia has made throughout this submission, we respectfully request that the ACMA does not make any changes to the current procedures without allowing key stakeholders the opportunity to participate in a further round of consultation based on the ACMA's initial findings.

EchoStar Global Australia thanks the ACMA for the opportunity to provide a submission to this important consultation.

Should the ACMA have any questions regarding our submission please contact us at

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Yours sincerely,

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