

18 October 2023

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

RE: Review of Australian satellite filing procedures consultation paper

Dear Mark,

Omnispace Australia Pty Ltd ("Omnispace") sincerely appreciates the opportunity to submit a response (see attachment 1) to the Australian Communications and Media Authority's ("ACMA") Consultation Paper, "*Review of Australian satellite filing procedure*" ("the consultation paper") and its companion Draft for consultation, "*Australian satellite filing procedure*" ("the draft for consultation"). As effective government satellite filing procedures may be integral to the availability and success of Omnispace's mobile-satellite service ("MSS") business in Australia, Omnispace applauds ACMA's efforts to review its procedures with industry and public participation.

Omnispace has far ranging and specific interests in the 2 GHz S-band given that it operates a global non-geostationary orbit ("NGSO") satellite system in the 2 GHz S-band (1980-2025 MHz Earth-to-space / 2170-2200 MHz space-to-Earth) with feeder links in the 5-7 GHz band. Omnispace's NGSO system has been brought into use in accordance with applicable International Telecommunication Union ("ITU") regulations. Omnispace is leveraging over AUD\$1 billion of assets that the company acquired to deploy its NGSO system in order to provide MSS and hybrid connectivity via Non-Terrestrial Networks (NTN).

Omnispace currently offers MSS capacity in various markets through its existing operational on-orbit F2 satellite network. The F2 satellite network is the first element of the NGSO constellation that will be capable of providing 24 x 7 coverage and connectivity around the globe ("Omnispace System"). In 2022 Omnispace launched two S-band capable LEO satellites into space to test the company's next generation 5G Non-Terrestrial Network ("5G NTN"), which will be a significant expansion of the Omnispace NGSO system.

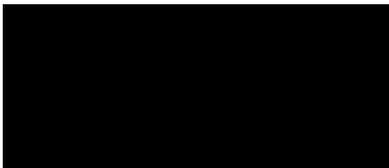
Omnispace is investing in new technology and infrastructure as part of its next generation global constellation designed to provide hybrid 5G connectivity. The Omnispace network will power critical global communications, including 3GPP Release 17 compliant 5G NTN and Internet of Things (IoT) connectivity, directly from its satellites in space to mobile devices around the world. Omnispace is building upon the investments it has already made to validate 3GPP standards-based 5G products and technologies and to demonstrate 5G connectivity from space.

Omnispace continues to invest in Australia and obtain authorizations to provide mobile satellite service in Australia, therefore Omnispace has a specific interest in this proceeding. Omnispace Australia was granted an Apparatus Licence for Space Service in Low and Remote Density Areas on July 4, 2023. In addition, Omnispace Australia has an operational satellite Earth station at Ningi QLD with MSS feeder links for its F2 satellite network in the 5 GHz and 7 GHz frequency bands. Ningi also provides Fixed Satellite System (FSS) feeder links for the ASIABSS satellite network in the 7 GHz segment. In 2022, Omnispace was added as a satellite operator on the Radiocommunications (Foreign Space Objects) Determination Amendment 2022 (No.1) ¹. Whilst Omnispace had not availed itself of the ACMA's Satellite Filing Procedures up until now there is a possibility that it will in future.

Thank you again for the opportunity to provide comments on the *Australian Satellite Filing Procedures Consultation Paper*.

Please contact me at [REDACTED] should there be a need for clarification or additional information.

Sincerely,



Les Davey
Managing Director
Omnispace Australia Pty Ltd

¹ <https://www.legislation.gov.au/Details/F2022L00701>

ATTACHMENT 1

Introduction

Omnispace Australia Pty Ltd ("Omnispace") is pleased to have the opportunity to provide comments on the Australian Communications and Media Authority's consultation on the *Review of Australia's Satellite Filing Procedures*. Periodic review and stakeholder input will ensure that these procedures are fit for purpose with a focus on improved clarity and readability, obligations of satellite operators and revision of the assessment criteria and procedures for managing the coordination and notification of satellite systems to reflect the current regulatory environment and industry practices.

Issues for Comment

Omnispace is pleased that the ACMA is reviewing its satellite filing procedures to better cater to NGSO satellite systems. We typically file for commercial MSS NGSO satellite systems so we have confined our comments to these, although we have had a series of Scientific Licences for Omnispace scientific testing in Australia.

Restructured document for readability and clarity (section 1.4.1 of the consultation paper)

Omnispace applauds the efforts of the ACMA to improve the readability and clarity of filing procedures and supports a simpler revised document structure, especially one that contains all information in a single document rendering obsolete the companion paper [*Satellite coordination and notification regulatory environment*](#).

Filing conditions (section 2.3)

Section 2.3 of the consultation notes that approval to file does not in any way imply the ACMA will issue radiocommunication licenses providing authorization for the applicant to provide a service within Australia's territories. As the filing process includes one or more milestones to formalise the dates for realisation of the entire constellation and a prerequisite for the ACMA granting approval to file that contains inclusion of Australian territories within the coverage area and authorization to provide such service requires a licence for authorization, Omnispace urges the ACMA to consider streamlining the filing and radiocommunication licensing processes. One way this can be achieved is by automatically contacting the applicant to initiate the radiocommunication licensing process once the filing process has reached the appropriate milestone.

It is relatively common for the implementation design of an NGSO constellation to differ from the original filing application, and modification of ITU satellite filings are made to reflect this. ACMA states, "Depending on the circumstances, this may require the satellite operators to submit a new filing request." In this regard, Omnispace would like further clarity on what circumstances warrant a new filing request. For example, if the change in circumstances did not materially change the status of coordination agreements/requests between satellite operators, would these changes warrant a new filing request?

The ACMA also states that ongoing support for a satellite operation (presumably this includes grant of approval and maintenance of the filing through the ITU) is conditional on there being a "substantial" benefit to Australia. The term "substantial" is subjective and may differ depending on the type of satellite payload vis-à-vis Earth Exploration, Space Research or communications payloads.

Indeed, the threshold for “substantial” may differ between types of NGSO communications constellations, e.g., mega constellations of thousands of LEO satellites providing short messaging service (SMS) applications compared to smaller constellations of hundreds of LEO satellites providing the full suite of 5G NTN applications or satellite constellations of one to three satellites in MEO providing IoT applications. There are diverse stakeholders in Australia and it is important to reflect that their perspective on the term substantial may differ, therefore Omnispace would respectfully propose that the ACMA use a less ambiguous objective metric, such as “coverage of Australian territory” rather than “substantial” (see section below).

Australian jurisdiction (section 3.1)

Omnispace Australia Pty Ltd is incorporated in Australia, carries on business here, and has management staff in the country so we do not anticipate any issues with meeting these requirements should we need to avail ourselves of the ACMA’s filing procedures. The requirements are clear.

In regards to the applicant being a subsidiary of a foreign company we would like greater clarity on the metrics that the ACMA requires to show that the subsidiary satellite operator functions independently from its parent foreign entity. In other words, what constitutes functional independence of the subsidiary satellite operator? In relation to this, does a requirement to maintain confidentiality of information about other Australian satellite operators make it clear as to what constitutes “confidential information”? The ITU publication, coordination and notification processes clearly define the information required and the submission of this information will be via the ACMA. Information derived or disclosed during coordination discussions between satellite operators is usually covered by confidentiality and non-disclosure agreements between the parties concerned so it is difficult to ascertain exactly what role the ACMA has in regards to protecting the confidentiality of information, other than that already provided for under Australia’s existing privacy legislation. Note that ratification of frequency coordination agreements is the responsibility of the ACMA and therefore appropriate information will be shared by the operator with the ACMA.

The consultation paper notes that before a new filing is approved by the ACMA and submitted to the ITU, it is required to be analysed by operators of existing Australian-filed satellite systems to determine if there are any coordination issues. This “pre-coordination” step should only be mandatory for existing Australian satellite ITU filings that involve the same bands as the applicant’s filing.. Perhaps more troubling is that it also creates a potential situation where an applicant’s filing is delayed by competing Australian satellite operators by the creation of a competing filing (i.e., one with overlapping coverage areas in the same band), or even blocked by competing Australian operators from using Australia as a filing administration, forcing the applicant to use another Administration to initiate the ITU process. In this regard, we note that the amelioration or otherwise of a coordination issue is addressed during coordination discussions between operators facilitated by Administrations. The pre-coordination step must be refined to remove the possibility of competitors creating technical barriers to completing the filing process and additional unnecessary activities for the ACMA in the future.

Operational control (section 3.2)

Whilst the Radio Regulations require a satellite operator to ensure it can immediately cease operation (RR No. 22.1), it is not clear from the consultation document if this requirement in Australia is directly available to a subsidiary Australian satellite operator, or if may be effected through the parent company and/or via a Telemetry, Telecommand and Control (TT&C) station outside of Australia. For

the avoidance of doubt, the ACMA is requested to clarify that either the Australian subsidiary and/or parent company may effect cessation of satellite transmissions.

Australian benefit (section 3.3)

Omnispace is pleased that the ACMA is taking efforts to bring clarity to the requirement for the benefit of Australians. However, the change may not provide that clarity as both the previously used ‘substantive’ and the proposed change to ‘substantial’ are subjective terms and dependent on context. For example, if an Earth Exploration Satellite provides data for the Australian territory but similar data is already available from other sources would that be considered ‘substantial’? Or if emergency communications may be implemented via satellite direct-to-device that are already available by say the POTS does that provide a substantial increase in benefit? Or if there are competing satellite constellations providing essentially the same end-result (e.g., SMS vs. messaging apps) to Australians and not necessarily filed through the ACMA would the later filed satellite constellation made through the ACMA be considered “substantial”? There is also the question of where the threshold for “substantial” lies? For example, if a satellite constellation is to provide service to a few high value industry or government clients, or if a satellite constellation is to provide service to few low value consumer clients as part of a much bigger global client base would these constellations meet the threshold for ‘substantial’? The term ‘substantial’ will also differ between differing satellite services used to implement similar end results, e.g., BSS and FSS DTH provide for uni-directional transmission of broadcasting content while FSS ESIM and MSS both provide for an earth stations in motion on the surface of the Earth.

Instead of including the subjective requirement for ‘substantial’ Australian benefit, Omnispace strongly encourages the ACMA to instead mandate coverage of Australian territories as this would clearly meet the criteria for providing Australian benefit.

Coordination with Australian Satellite Systems (section 3.4)

Current filing procedures require an applicant to complete coordination with Australian satellite operators who already hold an ITU satellite filing. Omnispace is pleased that the ACMA proposes to adjust this requirement that domestic satellite coordination need only be *initiated* when an application is submitted to the ACMA. Omnispace suggests further refining this requirement that domestic satellite coordination need only be *initiated* with an existing competing filing in the same frequency band(s).

Management of satellite systems through milestones (section 3.5)

Omnispace concurs with the ACMA to remove the milestone requirements and their publication as a guide for satellite operators to meet the ITU requirements for bringing a satellite system into use. The ITU requirements to bring a filing into use within a specific timeframe of 7 years has been shown to ameliorate the “paper satellite” issue and reduce the ITU filing backlog.

Change in ownership (section 5)

Omnispace is of the view that if the ACMA’s requirements for the initial filing are met by the company after the change of ownership or corporate structure then the filing should be simply transferred to the new owner and the filing process and associated coordination activities continue without interruption.

Relationship between filing and licensing (section 6.3)

If, in order for the ACMA to grant a filing application, the filing is to cover Australian territory, then it logically follows that the applicant will require a licence in order to authorise its service to Australia, or in the case of unidirectional or passive services to ensure protection of its service then it logically follows that the ACMA automatically initiate the licensing process at the appropriate stage of the filing procedure, and at the same time inform the applicant. This will ensure that Australian businesses and consumers benefit from the filing without delay, thereby streamlining the filing and licensing processes whilst maintaining process independence.

Critical infrastructure (section 6.5)

Omnispace concurs with the ACMA view that critical infrastructure obligations are not applicable to satellite filing processes, and in regards to satellite operation should be approached with caution to avoid unforeseen consequences of more burdensome regulation on emerging innovations.

Article 4.4 (Section 6.7.6)

Omnispace, as an MSS operator that respects the ITU and national regulatory frameworks, is pleased that the ACMA intends to continue its practice of requiring filing applications to be in conformance with Radio Regulations Article 5 without invoking use of Article 4.4. Continuing this practice strikes a balance between supporting early innovators (such as those planning to utilise 3GPP 5G NTN specifications) without creating unnecessary interference concerns from non-compliant satellite constellation designs. Omnispace notes that in this respect, ignoring the interference concerns of existing operators does not restrict future competition, rather it respects long standing ITU treaty level text and associated processes. Furthermore, the prudent use of Article 4.4 (use only for those instances when it is entirely unavoidable) ensures a level playing field for healthy competition and equitable access to the shared satellite orbital resource.
