

18 October 2023

**Mark Arkell**

Manager  
Space Systems  
Spectrum Planning & Engineering Branch  
Communications Infrastructure Division  
Australian Communications and Media Authority  
Email: [REDACTED]

Dear Mark

**RE: Review of Australian satellite filing procedures**

The Communications Alliance Satellite Services Working Group (SSWG) welcomes the review of the ACMA Australian satellite filing procedures. This review has been greatly anticipated, given the importance of the issues and the passage of time.

The SSWG's primary concerns are raised in the 'Technical and Financial Credentials' and on the 'Australian benefit' sections. We would like to highlight the following example of where the process needs improvement, as the current process appears to be operating as a deterrent to filing satellites through Australia.

The SSWG is aware of an Australian space start-up that has designed built and is testing satellites in Canberra. This small company employs Australians in high tech jobs within the space industry and the constellation will provide vital services to a major Government sector enhancing the safety of Australian and international aviation. This company was apparently unable to navigate the requirements to file through Australia and has instead chosen to file through another Administration.

Given the Commonwealth Government has established the Australian Space Agency to promote 'space' and given a strong focus on STEM jobs, the SSWG believes that this is a sub-optimal state of affairs. The SSWG believes the current filing procedure, at least in two main areas, serves as a barrier to innovation and stands in the way of Australian and multi-national entities who seek to file through Australia.

Please note that this submission does not necessarily represent the views of Optus.

**Technical and Financial Credentials**

While the requirement for an organisation wishing to file through Australia, and to maintain the filing, is a reasonable request, the requirement for 'finance' up front may be an unreasonable barrier to many aspiring and existing entrants.

Space industry participation is an expensive, high risk activity. Often, in order to raise the capital to support a new or existing venture, financiers require proof that an operator has a sustainable filing through a 'safe' Administration. Thus, the ACMA's requirements for verification of finance backing can become a 'chicken and egg' problem which may drive potential Australian operators to another Administration.

Additionally, relating to the timing of the ACMA's suggestion for obtaining payment from the operator for anticipated ITU cost recovery charges, there is a lengthy period of time, usually several months, between the submission of a filing to the ITU and the issuing of a cost

recovery notice by the Radiocommunications Bureau (BR) to the ACMA. Furthermore, the BR gives administrations several months to pay cost recovery fees for filings, meaning that the time between submission of the filing for ACMA's consideration and the due date of ITU cost recovery charges can be up to twelve months, or more. The requirement to pay before submission to ITU therefore appears unnecessary. Any concerns the ACMA has that the applicant might not pay would be handled at the step during which the ACMA establishes the financial credibility of the applicant. Our suggestion is to require payment within a given timeframe from the receipt of the ITU's charge notice.

On the other hand, provided the applicant can meet the required ITU and ACMA fees<sup>1</sup> a filing with the ITU is not a high risk activity for the ACMA or the Australian Government. The SSWG believes that the benefits of a more proactive and 'entry-friendly' approach to filing far outweigh any risks, especially given that following a fair process, the ACMA is able to suppress a filing at any stage.

Business cases and, indeed, technical plans often change over time. Failures at launch are not uncommon; nor are in-orbit failures, and either can render a business case obsolete very quickly. Likewise, technical plans can also change. A satellite (or constellation) in the design phase may change before the hardware is constructed, indeed some changes can be made during construction to take into account coordination agreements or new technologies. Direct-to-handset is one such new application that may require changes to both technical and financial plans. The ACMA should seek only basic information on, for instance, conceptual design, service area and demography and deployment plans.

Therefore, modifications to an ITU filing can be expected during the life of a network to accommodate design changes and technology changes as replacement satellites are added to the network in both GSO and NGSO networks/systems. The ACMA should ensure this is as simple as possible as delays to modifications could jeopardise the viability of the overall system.

Furthermore, it would be helpful to elaborate on the specific circumstances in which a modification to a filing would trigger the application process, as opposed to a modification requiring no in-depth consideration by the ACMA. We note that there can be significant cost and resourcing implications to an applicant when the application process is triggered. The examples given, i.e., adding a frequency band or using different orbital elements, seem appropriate. However, without being too prescriptive and allowing some flexibility, some examples could be given of modifications which do and do not trigger these procedures. Examples of exemptions could be the addition of Earth stations larger than the smallest of the network's Earth stations, and therefore less interfering; the addition of ESIM under Resolution 169. Additionally, service area modifications may be an example of modifications which do trigger these procedures.

We note that the existing procedures state at section 2.3 that '...in the event that the implementation of an NGSO satellite constellation differs from the original application in any detail (such as number of satellites, orbital height, inclination), the appropriate modification of the ITU satellite filing may be made to reflect the implemented NGSO satellite constellation. Depending on the circumstances, this may require the satellite operator to submit a new filing request'. It would assist if the ACMA could provide additional guidance on the circumstances in which a satellite operator may be required, or has been required, by the ITU to submit a new filing request given the potential coordination implications.

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<sup>1</sup> See section on fees.

## **Australian Benefit**

Australia benefits in a number of ways from any satellite filing. Coverage and service provision to Australia provide by far the greatest benefit. Only satellite covers all Australians all of the time. Other terrestrial systems are limited by economics and physical limitations, RF propagation and the remoteness of inland Australia make installation and maintenance of these systems very difficult if not impossible in large parts of the continent.

The SSWG does not support the use of the term 'substantial' benefit. 'Substantial' is subjective at best. Added to this, in the current procedure, the ACMA then discounts incremental but important benefits such as employment, provision of gateways or investment in facilities etc.

Even employing STEM specialists, or training them, is a relatively large benefit compared to the size of the existing industry. As a measurable example, ACMA trained space engineers are currently employed within Defence, the Space Agency, NBN and a number of other smaller enterprises as well as those within the ACMA. This is an important benefit to the Australian Government and space enterprises and helps the Australian space sector grow.

While the SSWG concedes that in some cases these benefits appear small, given the current size of the Australian space industry they are comparatively substantial in themselves.

## **Grandfathering**

While positive change is welcomed, the SSWG urges the ACMA to offer grandfathering to existing filings. Operators may choose to operate under any new set of requirements, however, they should not be made to retrospectively if they choose otherwise.

## **Fees and Charges**

The SSWG supports cost recovery and understands the need for ITU fees. However the upfront fee for new entrants is in the view of the SSWG, is prohibitive. The SSWG suggests that new entrants be treated in the same way as existing new filings and be decided by the EM Spectrum Planning where the expertise in space matters lies. This would significantly reduce bureaucratic overheads and assist the Australia space industry, particularly start-ups and new entrants, to grow.

## **Assessment criteria**

The procedures specify a requirement to conform to all relevant Australian domestic radiocommunications legislative requirements in effect at the time that the system becomes operational. However, there is a timing issue associated with this requirement. Specifically, it would not be possible to assess an application against a future set of requirements. This could be recast as a future requirement to comply with whatever the regulatory regime might look like seven years from now, but should in no way require a current application to be in conformity with a regulatory regime that does not yet exist.

## **When is coordination required between Australian satellite operators**

Rather concerning is the ACMA's unexplained requirement that any objection on the part of an existing operator to a new filing application must demonstrate 'severe incompatibility'. In addition to being too stringent a threshold, there is no definition in regulations or operations to determine what is specifically meant by the term 'severe', and should not be left to the subjective and arbitrary judgment of the ACMA. The SSWG urges the ACMA to remove the word 'severe', as it appears to undermine the ACMA's intent to avoid bringing into use

multiple networks which are mutually exclusive due to interference, which need not be 'severe' (whatever that means) in order to be unacceptable.

### **Procedures for approved applicants**

Section 4.1 of the procedures contains a footnote, which phrased another way is a threat that the ACMA will act in a manner contrary to the operator's interests. While the SSWG is not necessarily opposed to the ACMA's approach (since it applies exclusively to the circumstances in which an operator shirks its obligations), our suggestion is that such a heavy-handed provision should not be in a footnote, which are used in other parts of the document for definitions and references.

### **Foreign satellite systems published in an IFIC: potentially affected Australian satellite systems**

The ACMA's procedures contain an inexplicable statement that an exceedance of  $\Delta T/T$  threshold is insufficient to trigger coordination. The SSWG does not believe there is an operator, or an administration in the world who would agree with this sentence. The  $\Delta T/T$  threshold is the 'gold standard' of determining the need for coordination and compatibility between networks. If ACMA has an alternate standard, they should specify it in this part of the document, or remove its odd assertion regarding the  $\Delta T/T$  threshold.

The SSWG is not aligned with the ACMA's criticism of the coordination arc concept. It is a threshold that is very easy to apply and understand, it singlehandedly solved the ITU's multi-year backlog last decade, and saves operators a great deal of unnecessary computation. The SSWG suggests that the ACMA simply states that operators are free to make use of the  $\Delta T/T$  threshold and coordination arcs as appropriate.

### **Efforts to achieve coordination agreements**

The ACMA states in section 4.8 that 'ACMA will then send a copy of the endorsed agreement to the foreign administration requesting endorsement (and send a notice to the ITU that agreement has been reached, if required by the satellite operator).' This phrase is confusing, as the SSWG is unaware of a situation in which the ACMA would not send the endorsement to ITU. Indeed, this is a necessary part of the process, without which coordination cannot be said to have completed.

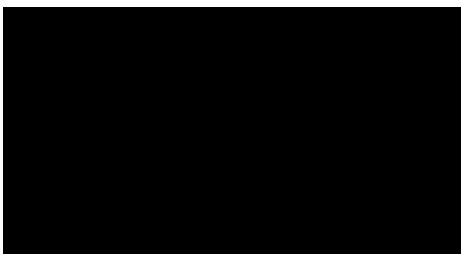
### **Final comments**

The ITU satellite filing process is an internationally recognised and respected treaty level mechanism that in most cases works well. The SSWG cautions the ACMA to not allow domestic processes to result in the gaming of the ITU procedures to gain advantage over systems that may have ITU 'priority' in some way.

While the SSWG welcomes this review it did seem to come 'out of the blue'. The SSWG suggests therefore that prior to making any changes, the ACMA undertakes a second round of consultation once its preferred option has been finalised. The SSWG looks forward to working with the ACMA to improve these procedures and build the Australian space industry.

If you have any questions with respect to this submission, please contact Mike Johns at Communications Alliance on [REDACTED].

Yours sincerely,



John Stanton  
**Chief Executive Officer**

## **Communications Alliance**

Communications Alliance is the primary communications industry body in Australia. Its membership is drawn from a wide cross-section of the communications industry, including carriers, carriage and internet service providers, content providers, platform providers, equipment vendors, IT companies, consultants and business groups.

Its vision is to be the most influential association in Australian communications, co-operatively initiating programs that promote sustainable industry development, innovation and growth, while generating positive outcomes for customers and society.

The prime mission of Communications Alliance is to create a co-operative stakeholder environment that allows the industry to take the lead on initiatives which grow the Australian communications industry, enhance the connectivity of all Australians and foster the highest standards of business behaviour.

For more details about Communications Alliance, see <http://www.commsalliance.com.au>.