

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

10 / 10 / 2023

RE: FLEET SPACE TECHNOLOGIES COMMENTS REGARDING THE REVIEW OF AUSTRALIAN SATELLITE FILING PROCEDURES

Thank you for the opportunity to comment on the Australian Communications and Media Authority ("ACMA") Review of the Australian Satellite Filing Procedures. As an established entity in the Australian space industry, Fleet Space Technologies Pty. Ltd. ("Fleet Space" or "Fleet") is committed to working with the ACMA to ensure that the Australian satellite radiocommunications regulatory regime remains relevant and effective.

Fleet Space supports this initiative by the ACMA to review and improve satellite filing procedures to ensure the procedures are more reflective of the current regulatory environment and industry practices. Specific Fleet Space comments on the consultation paper can be found in Attachment A.

If you require any further information or wish to discuss any aspects of the comments contained in this submission, please contact the Director of Telecommunications Strategy, Mike Kenneally at [REDACTED]

Best Regards

[REDACTED]

Federico Tata Nardini

Chief Financial Officer & Director
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ATTACHMENT A – SPECIFIC COMMENTS ON THE CONSULTATION PAPER

Section 2: Revisions to applications and assessment process

2.1 When an Application is Required

Fleet Space has no comment on Section 2.1.

2.2 Short-Duration Missions

Fleet Space has no comment on Section 2.2.

2.3 Filing Conditions

Fleet Space has no comment on Section 2.3.

Section 3: Revisions to Assessment Criteria

3.1. Australian Jurisdiction

Fleet Space has no comment on Section 3.1.

3.2. Operational Control

Fleet Space observes that many satellite operators often manage radio emissions on hosted payloads within satellite systems but lack authority over the satellite bus system or other payloads controlled by different entities. Fleet Space is of the view that there is an increasing prevalence of hosted payloads which will further increase this trend.

Fleet Space advocates for satellite operators to control emissions related to their specific satellite network filing, rather than having complete oversight of the entire satellite system. Fleet Space emphasizes that requirements imposed on satellite operators should focus solely on the radio emissions associated with the relevant satellite network filing.

Additionally, Fleet Space acknowledges that operators might not have day-to-day control but can override the system. However, there might be delays in executing executive control of the satellite system if ACMA directs an operator to cease radio emissions. Fleet Space emphasizes that ACMA should clarify its position on the requirement for "immediate cessation" and ensure that such requirements are reasonably feasible for space operators to implement. Fleet Space emphasises that non-geostationary satellites are not always in view of a ground station, and therefore immediate cessation of emissions needs to be interpreted in a practical manner. Fleet Space urges ACMA to clarify the requirement for "immediate cessation" and ensure practical feasibility for space operators.

3.3. Australian Benefit

Fleet Space supports the proposed changes, particularly the shift from 'substantive' to 'substantial' Australian benefit, which enhances clarity. However, Fleet Space observes that some satellite systems such as those supporting lunar missions may not necessarily include Australia in the satellite system's service area. For example, Fleet Space is involved in space mining which has applications in lunar and other extra-terrestrial applications. Fleet Space is of the view that mandating the requirement for Australia to be included in the service

area of the satellite system might preclude missions that offer significant benefits to Australia.

3.4. Coordination with Australian Satellite Systems

Fleet Space has no comment on Section 3.4.

3.5. Requirements for 'Planned Band' Applications

Fleet Space has no comment on Section 3.5.

3.6. Requirements for Amateur Satellite Bands

Fleet Space has no comment on Section 3.6.

Section 4: Revisions to Ongoing Management of Satellite Systems

4.1. ITU Satellite Coordination Process

Fleet Space has no comment on Section 4.1.

4.2. Information on IFIC Cost Recovery

Fleet Space has no comment on Section 4.2.

4.3. Management of Satellite Systems through Milestones

Fleet Space fully supports the proposed modification to the filing procedures concerning ongoing satellite system management through milestones. The prevention of 'paper satellites' and 'spectrum warehousing' is essential for upholding the integrity of the regulatory framework governing satellite radiocommunication systems.

Fleet Space acknowledges the burden placed on satellite operators by requiring strict milestone compliance. To that end, Fleet Space supports the practical approach taken by the ACMA to address this issue. Removing the mandatory milestone requirement and publishing them separately as guidelines for operators to fulfill ITU deployment standards is a welcomed step. Fleet Space believes this more 'soft touch' approach will significantly enhance the efficiency of regulatory procedures.

Section 5: Change in Ownership

Fleet Space has no comment on Section 5.

Section 6: Drivers of Future Change

6.1. International Arrangements

Fleet Space has no comment on Section 6.1.

6.2. ACMA Approach to Satellite Filing

Fleet Space has no comment on Section 6.2.

6.3. Relationship between Filing and Licensing

Fleet Space has no comment on Section 6.3.

6.4. Large NGSO Satellite Systems

Fleet Space understands and shares the concerns raised by the ACMA about the potential challenges posed by the deployment of large NGSO satellite systems, including spectrum congestion, interference issues, and the impact on other satellite technologies. Fleet Space recognizes the need for comprehensive regulation to address these concerns effectively and ensure fair competition, equitable access, and minimal interference among satellite systems.

Whilst Fleet Space recognizes the Australian Space Agency as the primary regulator overseeing physical objects in orbit, it is crucial that satellite operators thoroughly assess the impact of their satellite systems on the orbital environment. This assessment should stand as a pivotal criterion in evaluating prospective satellite network filing applications. With the proliferation of large constellations, refining orbital debris mitigation requirements has become imperative to ensure the enduring sustainability of space activities.

Fleet Space advocates for collaborative efforts among industry stakeholders, regulatory bodies, and international organizations. Together, they can establish robust guidelines that emphasize responsible satellite operations and actively contribute to minimizing space debris. By fostering cooperation and adhering to stringent standards, the space industry can create a safer and more sustainable orbital environment for future generations.

Fleet Space is committed to supporting initiatives that enhance the sustainability of space activities, including the development of technologies and best practices for the efficient deorbiting of satellites. We believe that a proactive approach to mitigating orbital debris, coupled with stringent regulations, will play a pivotal role in ensuring the long-term viability of space exploration and satellite communications.

6.5. Critical Infrastructure

Fleet Space has no comment on Section 6.5.

6.6. ITU Cost Recovery

While Fleet Space acknowledges the importance of evaluating the financial viability of satellite operators, Fleet Space would like to highlight the potential benefits of providing the free filing entitlement to new entrants in Australia's burgeoning space industry. For emerging satellite operators, this entitlement offers a significant financial reprieve, enabling them to allocate resources to crucial aspects of their operations and technological advancements. Fleet Space emphasises that the costs associated with initial ITU satellite filings is a significant disincentive to new satellite operators, as they incur large up-front expenses prior to being able to generate revenue - this can be a blocker for new and innovative entrants into the Australian space industry.

Fleet Space is of the view that the ACMA should consider a balanced approach that takes into account the financial stability of satellite operators while also nurturing innovation and growth within the industry. To that end, Fleet Space would propose a case-by-case assessment or the establishment of specific criteria for the provision of the free filing entitlement. By providing this support selectively, ACMA could contribute to fostering a competitive and innovative satellite landscape in Australia.

6.7. ITU Radio Regulations Board (RRB)

6.7.1. Extensions to Bringing into Use Timelines

Fleet Space supports the ACMA's stance, regarding extensions to regulatory timelines, specifically in cases of force majeure events. Fleet Space supports the view of the RRB in emphasizing the need for a demonstrable causal link between the force majeure event and the delay in bringing into use the filed satellite network frequency assignments.

This tailored approach, ensuring a direct connection between the force majeure event and the delay, reflects a nuanced understanding of the challenges faced by satellite operators. Fleet Space is of the view that extensions should be applied judiciously, recognizing the genuine constraints imposed by unforeseeable events while maintaining the integrity of regulatory timelines.

Fleet Space also recognizes the importance of disseminating this nuanced approach to satellite operators. By encouraging operators to familiarize themselves with the criteria set forth by the RRB, the ACMA is fostering a proactive and informed industry environment.

6.7.2. Satellite Coordination Difficulties and Filing Priority

Fleet Space has no comment on Section 6.7.2.

6.7.3. Status of WRC Decisions Recorded in WRC Plenary Minutes

Fleet Space has no comment on Section 6.7.3.

6.7.4. Equitable Use of Geostationary Orbits and Resolution 40

Fleet Space has no comment on Section 6.7.4.

6.7.5. Equitable Use of Non-Geostationary Orbit and Spectrum Resources

Fleet Space is of the view that NGSO satellite systems should be evaluated not just in terms of their spectrum utilization but also their proposed orbital resource utilization. Understanding the intricate interplay between radio-frequency spectrum and orbit resources is vital for ensuring long-term sustainability, equitable access, and rational use of these resources, aligning with the objectives of Article 44 of the ITU Constitution.

While Fleet Space acknowledges that Australia has not filed a large NGSO satellite system, Fleet Space urges a proactive approach in monitoring the ongoing work and implications highlighted by the ITU resolution. A comprehensive understanding of these developments will be pivotal in shaping our future approach to satellite filing and licensing. To that end, Fleet Space supports regulation that encourages satellite operators to efficiently deorbit their satellites at their end of life, particularly for operators of large NGSO satellite systems.

6.7.6. Radio Regulation 4.4

Fleet Space acknowledges the complexities outlined in Section 4.13 of the draft RRB report concerning the use of ITU RR 4.4, especially in the context of NGSO satellite systems. We appreciate the careful consideration given to this matter and the ACMA's cautious approach, particularly regarding applications inconsistent with ITU allocations.

Fleet Space would like to highlight the suitability of ITU RR 4.4 for satellite systems receiving signals from ground devices operating. Specifically, Fleet Space is of the view that spectrum

bands allocated for terrestrial mobile handsets or low interference potential devices could support direct-to-satellite communications in the Earth-to-space direction, provided the emissions from the associated ground devices adhere to domestic licensing requirements of terrestrial systems. Fleet Space is of the view, that this type of proposed operation of a satellite system is in compliance with ITU RR 4.4 and that the number of satellites or orbital planes in the satellite system does not affect the ability of the system to ensure that harmful interference is avoided, aligning with the principles of ITU RR 4.4 and avoids the complexities associated with other operations proposed under ITU RR 4.4.

Fleet Space appreciates the challenges posed by thousands of satellites in NGSO systems but encourages a nuanced approach. Where satellite operators can demonstrate adherence to emission requirements, the consideration of ITU RR 4.4 for specific applications should be explored. This approach allows for flexibility while maintaining the quality of service and capacity of satellite systems.

Moreover, Fleet Space proposes that ITU RR 4.4 applications for ground device signals reception be assessed on a case-by-case basis, ensuring that responsible operators can contribute to the evolving satellite landscape. By adopting this approach selectively, the ACMA can facilitate innovation while safeguarding against interference issues.