

Viasat response to the ‘Remaking instruments for the 3.4 GHz spectrum-licensed band’ consultation paper

Viasat, together with its subsidiaries, Inmarsat Leasing (Two) Limited and Inmarsat Solutions BV (as “**Inmarsat**”), welcomes the opportunity to comment on the Australian Communications and Media Authority (ACMA)’s proposal on *‘Remaking instruments for the 3.4 GHz spectrum-licensed band’* dated May 2025 (the “**Consultation Paper**”).

Background

Inmarsat operates C-band feeder links to support its satellite network from the Landsdale Earth Station in Perth and the Earth Station in the remote Mingenew Earth Station Protection Zone (ESPZ) in WA. Inmarsat operates several antennas which are used to receive the feeder downlinks of our mobile satellite service (MSS) satellites, for which signals are received in the band 3600-4200 MHz. The Landsdale Earth Station is also used for reception of telemetry, tracking and control (TT&C) links which are received in the band 3700-4200 MHz. The TT&C links support Inmarsat’s ‘L-band series of satellites (“Inmarsat 4” and “Inmarsat 6”). These satellites provide a wide range of satellite services using service links in L-band. The services are extensively used by Australian citizens, companies and government organisations for remote and resilient communications, including for maritime vessels and aircraft. Inmarsat services are heavily used in Australia and elsewhere to support safety-of-life requirements such as the global maritime distress safety system (GMDSS) and aeronautical mobile satellite (route) service (AMS(R)S).

Inmarsat also provides in Australia support to other satellite operators by providing telemetry communications in the band 3700-4200 MHz, during transfer orbit phase and during regular on-station operations. While the amount of spectrum required for spacecraft TT&C is relatively small, given that TT&C is used for the control and safe operation of the satellite in orbit, it is very important that telemetry signals are received without interruption due to interference. Also, the carrier frequencies used for TT&C vary depending on the satellite design, so the Inmarsat earth station may be required to operate over a large range of C-band frequencies to allow reception of telemetry from a variety of satellites.

Changes during 2022-23 to the three 3.4 GHz band technical framework instruments associated with the technical framework for spectrum licences in the 3400-3800 MHz frequency band (3.4 GHz band) and area-wide licences in the 3400–4000 MHz frequency range to allow additional Wireless Broadband (WBB) services into these bands, have adversely impacted on Inmarsat’s C-band services. In 2023, as a result of these changes, Inmarsat terminated licences to operate in the band below 3700 MHz in Perth, having taken significant steps to adapt its operations in Australia to accommodate WBB services in that band. Inmarsat has invested in the new earth station located in the Mingenew Earth Station Protection Zone (ESPZ) that has now picked up the loss of access at Perth for operations below 3700 MHz.

Inmarsat is therefore very cautious about any further changes to the band that could introduce new and additional constraints on our operations in the remaining C-band spectrum in Australia. Inmarsat also wishes to emphasise the need for protection of its operations in the Mingenew ESPZ throughout the entire band 3400-4200 MHz, to provide a long-term safe location for C-band FSS operations in Australia.

Specific comments on ‘Remaking instruments for the 3.4 GHz spectrum-licensed band’

Viasat notes that the coordination guidelines for the Earth Station Protection Zones (ESPZ) are maintained in the draft *Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters – 3.4 GHz Band) 2025*, with the requirement that spectrum licence transmitters must comply with RALI MS44. However, in the draft *Radiocommunications (Unacceptable Levels of Interference — 3.4 GHz Band) Determination 2025* (ULoI Determination), in section 7 sub-section (1) it says:

“(1) A level of interference caused by a radiocommunications transmitter operated under a 3.4 GHz spectrum licence is unacceptable if: ...

(b) subject to subsections (2) to (5), any part of the device boundary of the transmitter lies outside of the geographic area of the licence;”

In section 7 sub-section (3) it says:

“(3) A level of interference mentioned in paragraph (1)(b) is not unacceptable in relation to a part of the device boundary that:

- (a) lies outside the geographic area of the licence; and
- (b) lies inside an earth station protection zone;”

It is noted that the ACMA has created a definition in the draft ULoI Determination 2025:

“***earth station protection zone***: see Schedule 2.”

The earth station protection zones named in Schedule 2 are Moree, Quirindi, Roma and Uralla which is a subset of ESPZs covered in RALI MS44.

Viasat would request that the section 7 sub-section (3) (b) of the draft ULoI Determination 2025 be amended to:

7 (3) (b) “lies inside an ***earth station protection zone***;”

By putting “earth station protection zone” into bold italics this will reference the text to the definition in section 5 of the same document.

Viasat appreciates the opportunity to make comments on this consultation and stands ready to discuss further with ACMA if required.

Sincerely,

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