



December 02, 2025

RESPONSE TO ACMA CONSULTATION on “Interim arrangements for W-band fixed satellite service earth station transmitters”

Dear ACMA team,

The Bureau of Meteorology would like to thank ACMA for the opportunity to comment on the proposed new arrangements for transmit earth stations in the FSS service in the bands above 92 GHz.

The Bureau currently operates radiolocation systems within the proposed bands, as well as a large number of Earth Exploration Satellite Service (EESS) instruments operating in adjacent bands.

Our in-band system — a cloud and fog radar operating at 95.04 GHz — is located at the Broadmeadows (BMTC) facility in Melbourne (-37.691, 144.947) and is expected to remain operational until end of 2026. This location is approximately 14 km from the proposed Melbourne earth station site (-37.823009°, 144.915390°).

Without access to the full technical parameters of the proposed earth stations, it is not possible to adequately assess the potential impact on the BMTC radar. Initial investigations based on nominal earth-station characteristics indicate a possibility of harmful interference.

In addition, the Bureau operates EESS systems with allocations in the following bands that are adjacent to the proposed bands for earth stations in the consultation:

- 86–92 GHz
- 94–94.1 GHz
- 100–102 GHz
- 109.5–111.8 GHz

Many of these bands support EESS (passive) services, which are highly sensitive to interference, particularly from signals arriving from the opposite direction. Any interference into these systems poses a significant risk to the quality of critical satellite-derived data received daily by the Bureau. As with the in-band situation, no sharing studies have been presented that assess these risks or support the proposed arrangements.

The Bureau also has concerns regarding allocation of these bands to the FSS service in derogation of the national table of frequency allocations, which may prejudice future consideration of allocations for FSS in these bands.

For these reasons, the Bureau recommends that ACMA reconsider the interim arrangements and refrain from granting licences until a comprehensive assessment of interference scenarios—covering both in-band and adjacent-band impacts—has been completed.

Kind regards,

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The Bureau
of Meteorology