#### **EMBARGO 72**

**FREQUENCY RANGES:** 2025–2110 MHz

2200-2290 MHz

**SUBJECT:** Embargo on new frequency assignments for

terrestrial radiocommunication services in parts of

regional NSW and regional Queensland.

**DATE OF EFFECT:** 18 July 2018 (Last revised 2 August 2019)

COVERAGE: Area 1, Area 2, Area 3 and Area 4. Refer to

Attachment 1 for descriptions of Area 1, Area 2, Area

3 and Area 4.

**TIME FRAME:** It is expected that embargo 72 will be reviewed

before December 2020.

## **INSTRUCTIONS**

For the bands listed above no new frequency assignments for terrestrial services are to be made within Area 1, Area 2, Area 3 and Area 4 for all bands.

This includes assignments for existing licensees seeking to expand or modify their communications systems in the bands. Existing licences are not affected by this embargo.

For the purposes of this embargo, terrestrial services include all services other than Earth stations communicating with space objects (GSO and non-GSO satellites).

Exceptions to this embargo require case-by-case consideration and the approval of the Manager, Spectrum Planning Section.

Other embargoes and assignment restrictions should be considered in conjunction with this embargo. Particularly attention is drawn to embargo 23 which contains guidance regarding assignments for Earth station in 2025–2110 and 2200–2290 MHz.

## **REASONS**

The purpose of this embargo is to support the development of one or more areas providing long-term certainty and flexibility for the operation of commercial space communications teleport facilities in east Australia. Following on from the outcomes of the consultation on the future use of the 3.6 GHz band<sup>1</sup>, the ACMA has initially identified areas around Moree, Quirindi and Roma for further consideration as possible locations. These are described by Area 2, Area 3 and Area 4 respectively. Area 1 has been developed as protection zones of 150 km around each of Area 2, Area 3 and Area 4 to facilitate earth stations facilities being deployed in the areas.

It is recommended that, where possible, prospective commercial earth station licensees consider locating their facilities within Area 2, Area 3 or Area 4 and engaging with the ACMA in the process of choosing one or more eventual long-term earth station protection zones. These areas (2, 3 and 4) are currently the most likely areas to be identified to support the deployment and long-term operation of space communications teleport facilities in east Australia.

It is noted that if one or more of these sites are found to be unsuitable, embargo 72 will be reviewed to remove any assignment restrictions associated with the location(s).

### **COMMENTS**

Lead times for planning space communications are typically many years. In order for such planning to have certainty of spectrum access it is necessary for spectrum to be withheld from other services for considerable periods of time. This requirement can be difficult to satisfy in areas of high demand for spectrum by terrestrial services. Considering this, the ACMA

<sup>&</sup>lt;sup>1</sup> https://www.acma.gov.au/theACMA/future-approach-to-the-3 6-ghz-band

encourages the siting of such stations at locations of low demand for access to spectrum in order to minimise the impact on spectrum availability for other services.

As consideration of each area (2, 3 and 4) progresses, the ACMA, where appropriate, will work with industry to replace the embargo with coordination requirements. It is expected that any such arrangements will be developed on a band by band basis. This will protect space communications and limit the effect on access to spectrum for terrestrial services within the listed bands. The bands included in embargo 72 will continue to be revised and reviewed depending on demand and associated protection requirements for satellite services.

## **HISTORY**

In July 2018 this embargo was revised to remove frequency ranges subject to defence footnotes AUS100, AUS100A (FIXED SATELLITE), AUS101 or AUS101A (FIXED SATELLITE) that is the 4500–4800, 7250–7750, 7900–8400, 147145–14800, 20200–21200, 30000–31000 and 33400–36000 MHz bands. Previously this advice was contained in the instructions by reference to the footnotes only. The July 2018 revision avoids any ambiguity as to what frequency ranges are subject to the embargo.

Also in July 2018 the 3575–4200 and 5850–6700 MHz bands were removed from embargo 72. These bands are now subject to the coordination procedures contained in RALI MS44.

In August 2019, the 5091–5250 MHz, 6700–7075 MHz, 10700–11700 MHz, 12200–13250 MHz, 13750–14714.5 MHz, 15430–15630 MHz, 17300–20200 MHz, 24650–25250 MHz, 27000–30000 MHz, 37500–43500 MHz, 47200–50200 MHz and 50400–51400 MHz bands were removed from embargo 72. These bands are now subject to the coordination procedures contained in RALI MS44.

# **EMBARGO AUTHORISATION:**

Approved 2/8/2019

Zarko Krusevac

Manager Spectrum Planning Section Australian Communications and Media Authority

## **ATTACHMENT 1:**

For the purpose of embargo 72, Area 1 is described by the following HCIS:

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LT6, MT1, MT7, MT8, MU2, MU4, MU8, MU9, MV2, MV6, NV1, LT3H, LT3K, LT3L, LT3N,
LT3O, LT3P, LT9B, LT9C, LT9D, LT9F, LT9G, LT9H, LT9K, LT9L, LT9P, MT2A, MT2B,
MT2E, MT2F, MT2G, MT2H, MT2I, MT2J, MT2K, MT2L, MT2M, MT2N, MT2O, MT2P, MT3I,
MT3M, MT4A, MT4B, MT4C, MT4D, MT4E, MT4I, MT4M, MT4N, MT5A, MT5B, MT5C,
MT5D, MT5F, MT5G, MT5H, MT5J, MT5K, MT5L, MT5N, MT5O, MT5P, MT6A, MT6B,
MT6E, MT6F, MT6I, MT6J, MT6M, MT6N, MT9A, MT9B, MT9E, MU1C, MU1D, MU1G.
MU1H, MU1J, MU1K, MU1L, MU1N, MU1O, MU1P, MU3A, MU3B, MU3C, MU3E, MU3F,
MU3G, MU3H, MU3I, MU3J, MU3K, MU3L, MU3M, MU3N, MU3O, MU3P, MU5A, MU5B,
MU5E, MU5F, MU5I, MU5J, MU5M, MU5N, MU5O, MU5P, MU6B, MU6C, MU6D, MU6F
MU6G, MU6H, MU6J, MU6K, MU6L, MU6M, MU6N, MU6O, MU6P, MU7B, MU7C, MU7D,
MU7F, MU7G, MU7H, MU7K, MU7L, MV1H, MV1L, MV3A, MV3B, MV3E, MV3I, MV3M,
MV3N, MV5A, MV5B, MV5C, MV5D, MV5F, MV5G, MV5H, MV5K, MV5L, MV5P, NU1I,
NU1M, NU1N, NU4A, NU4B, NU4E, NU4F, NU4G, NU4I, NU4J, NU4K, NU4M, NU4N,
NU7A, NU7B, NU7E, NU7F, NU7G, NU7H, NU7I, NU7J, NU7K, NU7L, NU7M, NU7N, NU7O,
NU7P, NU8I, NU8M, NV2A, NV2B, NV2E, NV2F, NV2I, NV2J, NV2M, NV2N, NV4A, NV4B,
NV4C, NV4D, NV4E, NV4F, NV4G, NV4H, NV4I, NV4J, NV4K, NV4L, NV4M, NV4N, NV5A,
NV5B, NV5E, LT3C9, LT3D5, LT3D6, LT3D7, LT3D8, LT3D9, LT3F9, LT3G2, LT3G3,
LT3G4, LT3G5, LT3G6, LT3G7, LT3G8, LT3G9, LT3I9, LT3J2, LT3J3, LT3J4, LT3J5, LT3J6,
LT3J7, LT3J8, LT3J9, LT3M3, LT3M5, LT3M6, LT3M8, LT3M9, LT5H3, LT5H6, LT5H9,
LT5L3, LT5L6, LT5L9, LT5P3, LT5P6, LT9A1, LT9A2, LT9A3, LT9A4, LT9A5, LT9A6, LT9A8,
LT9A9, LT9E2, LT9E3, LT9E6, LT9E9, LT9J1, LT9J2, LT9J3, LT9J5, LT9J6, LT9J9, LT9O1,
LT9O2, LT9O3, LT9O5, LT9O6, LU3D2, LU3D3, LU6H3, LU6H6, LU6H9, LU6L3, LU6L6,
LU6L9, MS7N8, MS7N9, MS7O7, MS7O8, MS7O9, MS7P7, MS7P8, MS7P9, MS8M7,
MS8M8, MS8M9, MT2C4, MT2C5, MT2C6, MT2C7, MT2C8, MT2C9, MT2D7, MT3E4,
MT3E7, MT3E8, MT3J4, MT3J7, MT3J8, MT3N1, MT3N2, MT3N4, MT3N5, MT3N6, MT3N7,
MT3N8, MT3N9, MT4F1, MT4F2, MT4F3, MT4F4, MT4F5, MT4F6, MT4F7, MT4F8, MT4G1,
MT4J1, MT4J2, MT4J4, MT4J5, MT4J7, MT4J8, MT4J9, MT4O4, MT4O5, MT4O7, MT4O8,
MT4O9, MT4P6, MT4P7, MT4P8, MT4P9, MT5E1, MT5E2, MT5E3, MT5E5, MT5E6, MT5E8,
MT5E9, MT5I3, MT5I6, MT5I8, MT5I9, MT5M2, MT5M3, MT5M4, MT5M5, MT5M6, MT5M7,
MT5M8, MT5M9, MT6C1, MT6C4, MT6C7, MT6G1, MT6G4, MT6G7, MT6G8, MT6K1,
MT6K2, MT6K4, MT6K5, MT6K7, MT6K8, MT6O1, MT6O4, MT6O7, MT9C1, MT9C4,
MT9F1, MT9F2, MT9F3, MT9F4, MT9F5, MT9F7, MT9F8, MT9I1, MT9I2, MT9I3, MT9I4,
MT9I5, MT9I6, MT9I7, MT9I8, MT9J1, MT9M1, MT9M4, MT9M5, MT9M6, MT9M7, MT9M8,
MT9M9, MT9N4, MT9N5, MT9N7, MT9N8, MT9N9, MT9O7, MT9O8, MU1A1, MU1A2,
MU1A3, MU1A5, MU1A6, MU1B1, MU1B2, MU1B3, MU1B4, MU1B5, MU1B6, MU1B9,
MU1F6, MU1F8, MU1F9, MU1I6, MU1I9, MU1M2, MU1M3, MU1M5, MU1M6, MU1M7,
MU1M8, MU1M9, MU3D1, MU3D4, MU3D5, MU3D6, MU3D7, MU3D8, MU3D9, MU5C1,
MU5C2, MU5C3, MU5C4, MU5C5, MU5C6, MU5C7, MU5D1, MU5D2, MU5D3, MU5D4,
MU5D5, MU5D6, MU5K7, MU6A1, MU6A2, MU6A3, MU6A4, MU6A5, MU6A6, MU6A8,
MU6A9. MU6E3. MU6E6. MU6E9. MU6I3. MU6I6. MU6I8. MU6I9. MU7A1. MU7A2. MU7A3.
MU7A5, MU7A6, MU7A8, MU7A9, MU7E3, MU7J2, MU7J3, MU7J6, MU7O3, MU7P1,
MU7P2, MU7P3, MU7P4, MU7P5, MU7P6, MU7P8, MU7P9, MV1D2, MV1D3, MV1D4,
MV1D5, MV1D6, MV1D7, MV1D8, MV1D9, MV1P1, MV1P2, MV1P3, MV1P4, MV1P5,
MV1P6, MV1P8, MV1P9, MV3C1, MV3C2, MV3C3, MV3C4, MV3C5, MV3C6, MV3C7,
MV3D1, MV3D2, MV3D3, MV3D4, MV3D5, MV3D6, MV3D8, MV3D9, MV3F1, MV3F2,
MV3F4, MV3F7, MV3J1, MV3J4, MV3J7, MV3J8, MV3O4, MV3O5, MV3O6, MV3O7,
MV3O8, MV3O9, MV3P2, MV3P3, MV3P4, MV3P5, MV3P6, MV3P7, MV3P8, MV3P9,
MV4D2, MV4D3, MV4D5, MV4D6, MV4D9, MV4H3, MV5E1, MV5E2, MV5E3, MV5E4,
MV5E5, MV5E6, MV5E8, MV5E9, MV5I3, MV5I6, MV5J1, MV5J2, MV5J3, MV5J4, MV5J5,
MV5J6, MV5J8, MV5J9, MV5N3, MV5O1, MV5O2, MV5O3, MV5O4, MV5O5, MV5O6,
MV5O9, MV8D3, MV9A1, MV9A2, MV9A3, MV9A6, MV9B1, MV9B2, MV9B3, MV9B4,
MV9B5, MV9B6, MV9C1, MV9C2, MV9C3, MV9C4, MV9C5, MV9C6, MV9D1, MV9D2,
MV9D3, MV9D4, MV9D5, MV9D6, NU1A7, NU1E1, NU1E2, NU1E4, NU1E5, NU1E6,
NU1E7, NU1E8, NU1E9, NU1F7, NU1J1, NU1J2, NU1J4, NU1J5, NU1J6, NU1J7, NU1J8,
NU1J9, NU1O1, NU1O4, NU1O7, NU1O8, NU4C1, NU4C2, NU4C4, NU4C5, NU4C7,
NU4C8, NU4C9, NU4O1, NU4O2, NU4O3, NU4O4, NU4O5, NU4O7, NU4O8, NU7C1,
NU7C2, NU7C4, NU7C5, NU7C6, NU7C7, NU7C8, NU7C9, NU7D7, NU7D8, NU8E4,
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NU8E7, NU8E8, NU8J4, NU8J7, NU8J8, NU8N1, NU8N2, NU8N4, NU8N5, NU8N6, NU8N7, NU8N8, NU8N9, NV2C1, NV2C4, NV2C7, NV2G1, NV2G4, NV2G7, NV2G7, NV2K1, NV2K4, NV2K7, NV2O1, NV2O4, NV2O7, NV4O1, NV4O2, NV4O3, NV4O4, NV4O5, NV4O6, NV4O7, NV4O8, NV4P1, NV4P2, NV4P4, NV5F1, NV5F2, NV5F4, NV5F7, NV5I1, NV5I2, NV5I3, NV5I4, NV5I5, NV5I7, NV7A1, NV7A2, NV7A3, NV7A4, NV7A5, NV7B1, NV7B2, NV7B3

For the purpose of embargo 72 Area 2, which surrounds the town of Moree, is described by the following HCIS:

MU5G, MU5H, MU5L, MU5C8, MU5C9, MU5D7, MU5D8, MU5D9, MU5K1, MU5K2, MU5K3, MU5K4, MU5K5, MU5K6, MU5K8, MU5K9, MU6A7, MU6E1, MU6E2, MU6E4, MU6E5, MU6E7, MU6E8, MU6I1, MU6I2, MU6I4, MU6I5, MU6I7

For the purpose of embargo 72 Area 3, which surrounds the town of Quirindi, is described by the following HCIS:

MV3G, MV3H, MV3K, MV3L, MV3C8, MV3C9, MV3D7, MV3F3, MV3F5, MV3F6, MV3F8, MV3F9, MV3J2, MV3J3, MV3J5, MV3J6, MV3J9, MV3O1, MV3O2, MV3O3, MV3P1

For the purpose of embargo 72 Area 4, which surrounds the town of Roma, is described by the following HCIS:

MT4H, MT4K, MT4L, MT4F9, MT4G2, MT4G3, MT4G4, MT4G5, MT4G6, MT4G7, MT4G8, MT4G9, MT4J3, MT4J6, MT4O1, MT4O2, MT4O3, MT4O6, MT4P1, MT4P2, MT4P3, MT4P4, MT4P5, MT5E4, MT5E7, MT5I1, MT5I2, MT5I4, MT5I5, MT5I7, MT5M1

The HCIS is described in the Australian Spectrum Map Grid 2012. The Australian Spectrum Map Grid 2012 is available on the ACMA website at: <a href="https://www.acma.gov.au">www.acma.gov.au</a>.