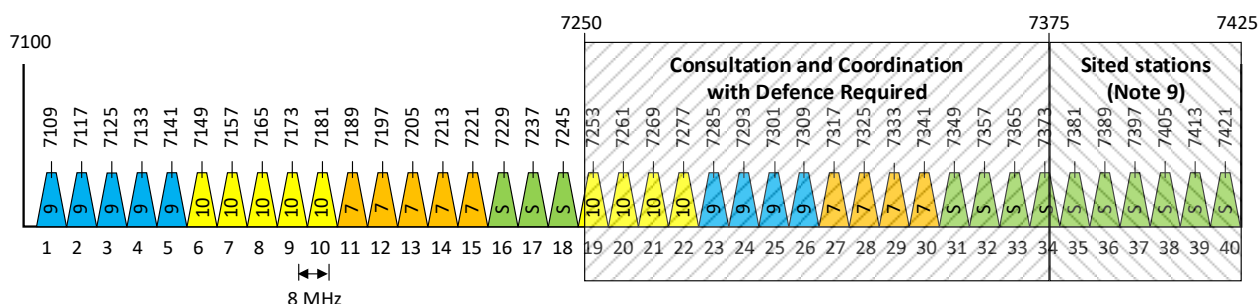


THE 7.2 GHz BAND (7100 - 7425 MHz)

RF CHANNEL ARRANGEMENTS



7	Seven Network (7)
9	Nine Network (9)
10	Network Ten (10)
S	Shared General (S)

Frequency limits (MHz)	Channel bandwidth (MHz)	Channel centre frequency formula (MHz)	Range of integer values for variable 'n'	First channel–last channel centre frequency (MHz)
7105– 7425	8	7101 + n (8)	1 to 40	7109–7421

Channel allocation	Channel number	Consultation and coordination with defence required?	Coordination with licensed earth station receivers required?
Shared (S)	16–18	No	No
	31–34	Yes	Yes
	35–40	No	Yes
Seven Network (7)	11–15	No	No
	27–30	Yes	Yes
Nine Network (9)	1–5	No	No
	23–26	Yes	Yes
Network Ten (10)	6–10	No	No

ASSIGNMENT INSTRUCTIONS

This band is designated for use by Television Outside Broadcast (TOB) services.

Typical use	: temporary video links providing live coverage of events
Assignment Priority	: not applicable
Minimum Path Length	: not specified
Antenna Requirements	: 0.6 m standard parabolic dish

Previous channel arrangements

Previous channel arrangements which provided were replaced these channel arrangements on 28 October 2022. No new assignments are to be made to the old channel arrangements. Existing services are to transition to the new arrangements. For new shared channels 16,17 &18 note there are existing licences issued before the commence of these arrangements and these should be consider under Assignment restriction 4 (that is consider whether operations will be in the same area).

Notes:

1. All TOB transmitters in the bands 7100 to 7425 MHz operate subject to the condition that they do not cause interference to other services (see Reference 1). The coordination criteria outlined in this RALI will be used in the consideration of any interference.
2. Deleted.
3. Channels designated 'S' are for shared general use and can be licensed by any entity for TOB use.
4. Defence must be consulted when a non-Defence licence applicant requests an assignment in the frequency range 7250 to 7375 MHz (see assignment restriction 1).
5. The channel raster known previously as the interleaved raster has been removed. No new assignments are to be made in accordance with that raster.
6. Earth transmit stations in the space research (Earth-space) service operate at New Norcia and Tidbinbilla in the bands 7145 to 7235 MHz. Services that operate in and adjacent to this earth station transmit band do so on the basis that they are not afforded protection from interference from earth station transmitters at the New Norcia and Tidbinbilla facilities.
7. Channels marked with 7, 9 or 10 are for exclusive use by the Seven Network, Nine Network Australia and Network Ten respectively.
8. Earth receive stations and TOB services in the band 7375 to 7425 MHz need to be coordinated as detailed in assignment restriction 3.
9. Shared channels with [area-wide access areas](#) are not afforded protection from other services. To increase visibility to other licensees, commonly used sites can be recorded as special conditions on assignments with area-wide access areas.
10. The potential for interference between TOB services is to be managed in accordance with assignment restriction 4.
11. Chanel bandwidth are notional and larger bandwidths can be assigned provided the assignment is within the segment limits. For example, assignments for shared channels can have bandwidths greater than 8 MHz, provided the bandwidth only overlaps channels allocated for shared usage.

References:

1. [Radiocommunications Licence Conditions \(Fixed Licence\) Determination 2015.](#)
2. [Australian Radiofrequency Spectrum Plan 2021](#), May 2021.
3. [RALI MS 03](#), *Spectrum Embargoes* – embargos 47, 49 and 59.
4. [Recommendation SF.1006](#): ‘Determination of the interference potential between earth stations of the fixed-satellite service and stations in the fixed service’.
5. [Recommendation ITU-R S.465](#): ‘Reference radiation pattern of earth station antennas in the fixed-satellite service for use in coordination and interference assessment in the frequency range from 2 to 31 GHz’.
6. [Recommendation ITU-R P.452](#): ‘Prediction procedure for the evaluation of interference between stations on the surface of the Earth at frequencies above about 0.1 GHz’ using 20% time percentage.

THE 7.2 GHz BAND (7100 - 7425 MHz)

ASSIGNMENT RESTRICTION

1. Non-Defence assignments between 7250 and 7375 MHz

The frequency range 7250 to 7375 MHz (channels 19 to 34) is subject to footnote AUS100 in reference 2. In accordance with this footnote, assignments to non-Defence licence applicants must not be made in this frequency range unless Defence has been consulted and the licence applicant agrees to coordinate with Defence prior to each transmission being undertaken.

Licence applicants are to consult with Defence before applying for a licence and send details of agreed coordination arrangements to Manager, Spectrum Planning Section via freqplan@acma.gov.au.

Special Condition FH must be applied to all the licences in this band. Special Condition FH reads:

The licensee must coordinate any proposed transmissions in the frequency range 7250 MHz to 7375 MHz with the Department of Defence before commencing such transmissions.

2. TOB exclusion zones

There are a number of embargoes that restrict TOB assignments. Refer to RALI MS 03 to confirm current restrictions. Currently (at the time this channel plan was prepared) TOB assignments are not permitted in the areas and frequencies as listed in RALI MS 03 Embargos 47, 49 and 59 (reference 3):

- Embargo 47: 7250–7425 MHz near Geraldton WA
- Embargo 49: 7135–7245 MHz and 7250–7425 MHz near Mingenew WA
- Embargo 59: 7250–7425 MHz near Kapooka NSW.

3. Coordination requirements with earth station receivers in the 7375–7425 MHz band

To facilitate the use of shared TOB channels, the coordination requirements in the 7375–7425 MHz band have been designed to support handheld-like TOB cameras (with a maximum EIRP of 26 dBm and a notional antenna height of 1.5 m). Coordination of proposed TOB services consistent with these parameters is not required beyond a distance of 75 km from a licensed earth station receiver that has overlapping frequencies and operates in the 7375–7425 MHz band.

Sited TOB services that operate above these parameters will be considered on a case-by-case basis, provided it can be demonstrated that the protection requirements for earth station receivers are achieved.

Coordination between a proposed TOB transmitter and earth station receiver is deemed completed if the received power from the TOB transmitter at the earth station receiver is less than -158.6 dBW/MHz (derived from Recommendation SF.1006 – see reference 4).

The antenna pattern of the earth station antenna should be used if known. Otherwise, the latest version of Recommendation ITU-R S.465 should be used (see reference 5).

When calculating interference levels, propagation model P.452 using 20% time percentage should be used with Digital Elevation Model of 3 seconds or better (see reference 6).

Note: Proposed earth station receivers are required to be coordinated with existing licensed sited TOB stations.

4. Coordination requirements between TOB services

Shared channels and airborne transmitters

To facilitate sharing, airborne TOB transmitters (e.g., aboard helicopters) are not intended to be supported on shared channels. Usage will be considered on a case-by-case basis.

Coordination of shared channels

There are no coordination requirements between TOB services on shared channels. Shared channels are to be self-managed within the TOB industry to manage interference. TOB licensees are encouraged to coordinate usage of shared channels with other TOB licensees.

Adjacent channel coordination

TOB licensees are to self-coordinate adjacent channel use with other TOB licensees.

5. Coordination requirements with space research services

Space research services transmit in the 7145 to 7235 MHz band from New Norcia (WA) and Tidbinbilla (ACT), and TOB services are not afforded protection from these services.