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12 – 16 October 2015 Bali, Indonesia

**Document No. 15/XVI/042**

Agenda Item: 11.11

**NEW ZEALAND AMATEUR RADIO LICENSING and BAND PLANNING - 2015**

A paper from the New Zealand Association of Radio Transmitters Incorporated (NZART)

**Background**

NZART is authorized by the New Zealand Administration to hold examinations, issue licences and callsigns for New Zealand radio amateurs. This also covers the organization and frequency coordination of radio amateur repeaters and Beacons.

NZART has re-organised the former Frequency Management and Technical Advice Group (FMTAG) by splitting the operation into an Engineering and Licensing Group (ELG), and a Band Planning Group (BPG).

This has resulted in a significantly reduced work load from the original single engineer operation while introducing much needed succession planning.

Licensing and Engineering Group (ELG) has a minimum of three “Approved Radio Engineers” (ARE), or the technician grade “Approved Radio Certifiers” (ARC). These are the Administration Radio Regulator’s “approved persons” that professionally engineer and certify Spectrum & Radio licences (ARE only) or Radio licences (ARE or ARC). The Team Leader of ELG must be an ARE. Currently all three members of ELG are AREs.

Licence applications for repeater & beacon licences are received either directly by ELG & engineered by them or externally through an external ARE or ARC on behalf of the applicant. The ELG engineering team donate their professional time free of charge to NZART.

ELG also act as the NZART Licensing Agency for all New Zealand amateur radio applications. This a delegated function of the Radio Regulator, to accept or reject applications received, having regard to the published band plans, frequency reuse and other engineering criteria.

NZART council have agreed to a simplified licence application, the only details now required are those that will appear on the completed licence.

**Band Planning Group**

These are infrequently used groups that convene for a specific task. This could be a HF group consisting of members with an excellent knowledge and experience on the band under scrutiny, likewise a VHF, UHF or SHF group is assembled from members with frequent use, engineering and band planning knowledge on ghose bands. The ELG team leader is also a member of the VHF and above Band Planning Group.

Presently a 9 cm band planning group is operating. This has arisen by evolving use of the 9 cm band. The current New Zealand 9 cm band plan is obsolete as international use has changed, for example the international weak signal 1 MHz segment (including EME) has now become 3400-3401 MHz. A new beacon application was received to operate in the correct frequency segment but the band plan, being outdated, required adjusting to recognise the modernized Band Plan.

Projected Satellite spectrum has also changed although there has never been satellite operation on this band. More recently our closest neighbours, Australia have lost the use the segment above 3400 MHz in metropolitan areas including the international DX segment mentioned earlier. Consideration is being given to their new change and how we can harmonise our activities to their new DX segment.

**NEW ZEALAND AMATEUR BANDS**

New Zealand Radio Amateurs have access to all the traditional MF, HF, VHF, UHF, SHF and EHF bands, with a transmitter output power of 1,000 Watts peak envelope power (PEP).

Since the last report in 2012, the 50-51 MHz part of the six meter band has been made available for use by all amateurs with a 1000 Watt isotropic radiated power (eirp) power level. By the time of the conference the band should be amateur exclusive with a change to the standard 1000 Watt PEP transmitter output power. This is the first time since 1957 that New Zealand amateurs have had exclusive use of 50-51 MHz.

The temporary 500 kHz allocation at 505-515 kHz has ceased and has been replaced with 472-479 kHz. NZART has been able to negotiate a favourable 25 Watt eirp power limit & with no bandwidth or emission restriction. Present use is by a small but dedicated group using many modes including Digital, CW, SSB and AM.

The 614-622 MHz band which was mainly used for amateur television has been withdrawn following the change to Digital Terrestrial Television. It is hoped that a TV channel immediately below the lowest frequency channel can be used for amateur DTTV repeater outputs. This is known as (channel) DTV25, at 502-510 MHz. It is mainly used as a guard band but with short term low power commercial DTTV use also. Work is proceeding with the co-operation of the Radio Regulator and adjacent spectrum users with tests to ascertain the impact of very low level unwanted DTV emissions in the adjacent spectrum. Very clean DTV transmitters with extensive filtering are required for this application.

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