

UHF TELEVISION CHANNELLING AND LICENSING

The following information was provided to prospective applicants for non-commercial UHF licences, in July 1996. The information was intended to assist those parties planning applications for use of the two blocks of UHF frequencies reserved for non-commercial television purposes. It provides an outline of how the allocation of non-commercial UHF licences may proceed; the details of licences issued over time may be confirmed with the Ministry of Commerce.

Introduction

The overall Ultra High Frequency (UHF) bands have been channelled on the same 8 MHz basis as used in the UK and Europe and are suitable for a PAL G service.

Licences suitable for commercial television services were created and sold by tender in 1990 and these licences have set a pattern in the UHF bands which to some extent pre-determines the particular channels that would be used for non-commercial services in various geographic areas.

The overall UHF band comprises 36 channels, conveniently considered as nine blocks of four channels per block. The blocks are numbered from 1 through 9 and within each block the four channels are designated as A, B, C and D.

Blocks 1, 2, and 5-9 have been licensed for commercial services with Blocks 3 and 4 being held for generally non-commercial services (including Maori television). Some pre-existing licences in the band remain and these give some constraints in particular geographic areas.

Licences provided for commercial purposes

The pattern of licences allocated by tender and the overall geographic distribution of licences is given in the following table.

CH A	CH B	CH C	CH D
CH 27	CH 28	CH 29	CH 30
CH 31	CH 32	CH 33	CH 34
CH 43	CH 44	CH 45	CH 46
CH 47	CH 48	CH 49	CH 50
etc	etc	etc	up to CH 66

CH A	CH B	CH C	CH D
Waiatarua	Maungataniwha	Hikurangi	Horokaka
Pukepoto	Parahaki	Mt Egmont	Paeroa Range
Tuhingamata	Te Aroha	Mt Edgecumbe	Taumaranui
Grampians	Whakapunake	Mt Erin	Wharite
Mt Rochfort	Kaukau	Otahua	Wither Hills
Mt Studholme	Paparoa	Kuriwao	Sugarloaf
Obelisk	Mt Mary		Little Mt Ida
	Mt Cargill		Hedgehope

Plus seven lower powered licences at each of:

Mt Erin	Wharite	Waiatarua	Ruru (4 only)
	Sugarloaf	Mt Studholme	Kopukairoa (3)
	Hedgehope		Kaukau
			Mt Cargill

The low power channels can be used for either a lower power coverage of the area or, following the necessary licensing changes, for an "infill" coverage from an alternative site or sites.

All the above licences have been sold by the Ministry and a number are in use, particularly in main urban areas. These licences are tradeable and the ownership of any particular licence is available from the Registrar of Radio Frequencies, PO Box 690 Wellington.

Licences for non-commercial purposes

It is desirable to plan the use of Block 3 and 4 in a way which is compatible with the presently licensed services. This approach avoids potential difficulties and interference from adjacent channel and adjacent area licences. Using the established pattern for Blocks 3 and 4 gives:

CH A	CH B	CH C	CH D
CH 35	CH 36	CH 37	CH 38
CH 39	CH 40	CH 41	CH 42

The above blocks and channels are expected to be capable of providing for separate Maori and non-commercial coverages, but it is not necessary to confine each purpose to an exclusive block. However for planning purposes it is useful to consider each use as being within a single block. It should be noted that the Ministry will need to have regard to Crown obligations to provide frequencies for Maori television and it is anticipated that this would generally be provided in Block 3.

The remaining coverage from Block 4 would, for reasons outlined below, be slightly restricted over that possible in Block 3. Once a reasonable number of actual licences are granted in either block it may be possible to improve the spectrum utilisation by creating licences based on these known licences at the time of further licence creation and these could potentially be in either block.

Channel 39 is presently licensed for amateur television at particular locations and TV3 has licences on Channel 42 at three locations (Paeroa Range, Towai, and Baxters Knob). A channelling allocation which recognises these would be as follows:

CH A	CH B	CH C	CH D
CH 35 CH 39	CH 36 CH 40	CH 37 CH 41	CH 38 CH 42
Waiatarua (35) Pukepoto Tuhingamata Grampians (35) Mt Rochfort Mt Studholme Obelisk	Maungataniwha Parahaki Te Aroha Whakapunake Kaukau Paparoa Mt Mary Mt Cargill	Hikurangi Mt Egmont Mt Edgecumbe Mt Erin Otahua Kuriwao Waiatarua (41) Grampians (41)	Horokaka Paeroa Range Taumaranui Wharite Wither Hills Sugarloaf Little Mt Ida Hedgehope

Plus lower powered licences at each of:

Mt Erin	Wharite Sugarloaf Hedgehope	Waiatarua (37) Mt Studholme	Ruru Kopukairua Kaukau (38)
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Notes regarding non commercial licences and coverage

- (a) Where a location has a channel number noted then only that channel would be available, otherwise the two channels would be available.
- (b) The lower power licences would probably be used for "infill" coverage from an appropriate site in the general area.
- (c) The above are based on using the sites used for development of licences for the commercial usage. Use of alternative sites in some areas may be desired (eg Auckland Skytower) and these would generally be possible with the channelling for the area as shown above.

The use of alternative sites should also take into account the performance of presently installed UHF antennae which are directed to present (generally Sky) transmissions. Depending upon the sites selected by the licensees, there may be opportunities for some additional "infill" coverage licences, but this cannot be determined with any accuracy at this stage.

- (d) In Wellington the existing TV3 use (CH 42) makes only one lower power coverage available. It may be necessary to acquire this "supplementary" coverage from Block 5 where a commercial licence exists but is not presently used. No disadvantage is caused by the amateur use, although the amateur usage may experience interference from the adjacent channel coverage.
- (e) In Auckland there are two main coverages and only one supplementary coverage. Limitations on a second supplementary coverage occur because of an existing amateur service at Nihoputu and because of amateur use of Channel 39 south of Auckland. One Waitarua main coverage (CH 35) and the supplementary licence (CH 37) is presently used for the Maori television pilot project.

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Further Information

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