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**RADIO FREQUENCY TENDER:
CALL FOR TENDERS**

MINISTRY OF COMMERCE
RADIO FREQUENCY TENDER
CALL FOR TENDERS

1 I, James Richard Alan Stevenson, General Manager Communications Division, Ministry of Commerce, acting on behalf of the Secretary of Commerce and with his authority, subject to the terms and conditions specified in the First Schedule hereto, hereby call for tenders:

- i for management rights to be transferred pursuant to section 42 of the Radiocommunications Act 1989 in lots as specified in the Second Schedule hereto; and
- ii for licences to be granted pursuant to section 48 of the Radiocommunications Act 1989 in lots as specified in the Third Schedule hereto.

FIRST SCHEDULE

TERMS AND CONDITIONS

2 The terms and conditions applicable to this tender are as follows:

AMENDMENTS TO THIS CALL FOR TENDERS

3 This notice may be amended or revoked by the Secretary of Commerce, in whole or in part, and at any time, by notice in the New Zealand Gazette.

ACQUISITION OF LICENCES

4 Section 138 of the Radiocommunications Act 1989 provides for the application of the merger or takeover provisions of the Commerce Act 1986 to the acquisition of management rights or licences under the Radiocommunications Act 1989.

5 In terms of section 51 of the Commerce Act 1986, the contract created by the acceptance of bid(s) will be subject to the condition that none of its provisions relating to the acquisition of the relevant management right(s) or licence(s) will come into force unless and until the merger or takeover proposal constituted by that acquisition has been given a clearance or an authorisation has been granted in accordance with Part V of the Commerce Act 1986. This condition does not, of course, apply if the acquisition of the relevant management right(s) or licence(s) does not constitute a merger or takeover proposal for which clearance or authorisation is required under the Commerce Act 1986. It is the responsibility of each tenderer to determine the application of the Commerce Act 1986. Legal advice as to whether clearance or authorisation is required should therefore be sought at an early stage.

6 For the purposes of determining whether clearance or authorisation is required you should note the following:

- (a) for the purposes of Class A of the First Schedule of the Commerce Act 1986, the Crown is regarded as having assets valued in excess of \$100,000,000; and
- (b) for the purposes of Class B of the First Schedule to the Commerce Act 1986, the Crown, through Television New Zealand Limited and Radio New Zealand Limited, carries on the activity broadcasting.

7 In the event that any required Commerce Commission clearance or authorisation is not obtained, the Secretary of Commerce reserves the right to re-tender the lot concerned, or to offer it to the next highest tenderer in accordance with paragraphs 38 to 40 of this schedule.

8 This call is also made subject to any other legal requirement that pertains to the acquisition of management rights or licences as specified.

WHO MAY BID

9 Any person or organisation may bid. A bid should be made in a name which is ordinarily used by the tenderer.

HOW TO BID

10 All bids must be made on the form prescribed (form RFT 1). A form has been provided with this notice. More than one form may be used if this is necessary to express bidding intentions. A cheque should accompany each form used. It should be noted that a tenderer may make only one bid for a particular lot.

11 The bid form must be signed.

12 The bid form should be completed in accordance with the directions on the bid form. It is the responsibility of the tenderer to ensure that information provided on the bid form is complete in all respects and is legible. **THE BID FORM SHOULD BE COMPLETED IN TYPED CAPITALS.** The Secretary does not accept responsibility for errors or omissions arising from bid information which is not clearly stated.

13 Bids may be posted, or delivered by hand. Bids should be addressed: 'Radio Frequency Tender, The Manager, Administration, Corporate Services Department, Reserve Bank of New Zealand, PO Box 2498, Wellington.' Bids being hand delivered should be delivered to the Receptionist, 1st Floor, Reserve Bank of New Zealand Building, No. 2 The Terrace, Wellington. In both cases, bids should be in a sealed, addressed envelope. A pre-addressed envelope is provided with this notice. Only the bid form(s) and the required bank cheque with each bid form should be put in the bid envelope. Sending a bid by facsimile is not acceptable, as a bank cheque must accompany the bid form. Bids should not be presented to the Ministry of Commerce.

PAYMENTS**Deposits**

14 A deposit equivalent to 25 percent of the amount bid is payable in respect of each bid. This is payable at the time the bid is made. The deposit should not include Goods and Services Tax.

15 All bids should be in whole New Zealand dollars. If part dollar bids are made, cents will be ignored, not rounded. Zero dollar bids are acceptable. In this event, no deposit is payable.

16 Payment must be made by way of a currently dated bank cheque made payable to the Ministry of Commerce. A 'currently dated' cheque means a cheque which can be banked by the Ministry at any time. Post-dated cheques are therefore not acceptable. A bank cheque is a cheque raised on a bank's account by the bank. Personal or company cheques are therefore not acceptable. Cash payments should not be made.

17 Where more than one bid is made, the deposit payable should be calculated by taking 25 percent of the total for all amounts bid. This is to avoid rounding discrepancies that would arise if the deposit were calculated by taking the sum of 25 percent for each amount bid.

18 Deposits received will be banked in trust accounts by the Ministry of Commerce. Deposits paid by successful tenderers will be held in trust accounts until any necessary clearances or authorisations under the Commerce Act 1986 have been produced, at which time they will be transferred into the Crown's own bank account.

19 Deposits paid by unsuccessful tenderers will be repaid with interest shortly after the names of provisional successful tenderers have been published.

20 Deposits will accrue interest while held in trust accounts. Interest will be paid to unsuccessful tenderers at the time their deposits are repaid to them. Interest will be paid to successful tenderers at the end of the tender round. Interest of less than five dollars will not be paid to successful tenderers.

21 In making possible an interest-bearing facility to tenderers, the Secretary makes no representations as to the rate at which interest will accrue. Interest will be paid after withholding tax has been deducted.

22 Failure by the successful tenderer to provide payment in settlement as set out below will result in forfeiture of part or all of any deposit paid by that tenderer and any interest that would otherwise be payable. The amount liable for forfeiture will be the difference between the amount invoiced and the amount eventually paid by another tenderer, plus administrative costs incurred by the Ministry in having to re-offer the lot(s) concerned.

Payments in settlement

23 Except where paragraphs 24, 25 and 26 apply, the amount required in settlement in respect of each lot will be equivalent to the second highest bid for that lot, less the total deposit already paid. The 'second highest bid' means the second highest amount bid by tenderers for a particular lot irrespective of the working of preferences as provided for later in this notice. Bid(s) found to be invalid as provided for under this notice will not be counted in determining the second highest bid, and will not be counted in determining the price on which amounts are payable under paragraphs 24, 25 and 26.

24 In the event that there are two or more equal highest bids, the successful tenderer will be determined randomly. That tenderer will be required to pay on the basis of the amount of the losing bid(s), that is the same amount the tenderer bid. In the event that there is only one bid for a particular lot, the next highest bid defaults to zero, and therefore nothing is payable. In the event that the next highest bid is actually zero, the successful tenderer will pay nothing.

25 In the event of the failure of the successful tenderer to provide payment in settlement in relation to a lot as required above, the next highest tenderer will be offered the lot. The amount required to be paid in this instance will be based on the amount equivalent to the next highest bid (in this instance, the third highest bid) for the relevant lot. The lot in question will continue to be offered in this manner until payment is received. If no payment is received, the lot in question will be re-tendered at some later date.

26 In the event that results are determined in accordance with the provisions of paragraph 38(d), the successful tenderer will be required to pay on the basis of the amount equivalent to the next highest bid.

27 Each successful tenderer will be invoiced for any amount payable in settlement shortly after the tenderer has satisfied the Secretary that no clearances or authorisations under the Commerce Act 1986 are required OR any necessary clearances or authorisations under the Commerce Act 1986 have been produced. In the event that a deposit paid by a successful tenderer exceeds the amount payable in settlement by that tenderer, a refund will be made shortly after the names of provisional successful tenderers have been published. Full payment in settlement must be received by the Manager, Finance, Communications Division, Ministry of Commerce, in Wellington within 10 (ten) working days of the date of the invoice. Payment must be made in New Zealand dollars by way of a currently dated bank cheque made payable to the Ministry of Commerce. Personal or company cheques are not acceptable.

CLOSING OF BIDS

28 The closing of bids is 12 noon on Monday, 18 June 1990. It is the responsibility of tenderers to ensure that their bids are received by the Manager, Administration, Corporate Services Department, Reserve Bank of New Zealand, in Wellington, by this date and time. Late bids will not be accepted. No responsibility is accepted for non-receipt by the time for closing of bids arising from factors such as delays in the post, or where bids are sent to the Ministry of Commerce, or to the Bank's offices outside Wellington. Late bids will be returned.

SUITABILITY FOR PURPOSE

29 It is the responsibility of tenderers to ensure that lots for which they are bidding are suitable for their purpose. No representations in this respect are made by the Secretary of Commerce.

INVALID BIDS

30 Where a tenderer fails to comply with one or more of the following criteria, all bids made by that tenderer will be invalid. All such bids will be invalid where:

- a they are not received by the Manager, Administration, Corporate Services Department, Reserve Bank of New Zealand, in Wellington, by 12 noon on Monday, 18 June 1990; or
- b they are not made on the form prescribed under this notice (that is, form RFT 1); or
- c the bid form is not signed; or
- d if more than one bid is made, the number of lots sought is not stated on the bid form. The 'number of lots sought' means the number of lots a tenderer is prepared to pay for, if successful.

31 Where a tenderer fails to comply with one or more of the following criteria in respect of a particular lot, the relevant bid(s) made by that tenderer will be invalid. Such a bid will be invalid where:

- a it is not made in New Zealand dollars; or
- b a currently dated bank cheque in New Zealand dollars, made payable to the Ministry of Commerce for the sum equivalent to 25 percent of the total of all amounts bid per bid form, is not presented along with the bid form (unless the bid is for zero dollars); or
- c if successful, full payment in settlement in New Zealand dollars is not received by the Manager, Finance, Communications Division, Ministry of Commerce, in Wellington, by way of a currently dated bank cheque within 10 (ten) working days of the date of the invoice; or
- d a lot reference is not stated, or it does not correspond exactly with one or more of the lots described in the Second Schedule or Third Schedule attached hereto; or
- e more than one bid is made in respect of a particular lot.

32 For the purpose of deciding which bid(s) will be invalid in respect of 31 (b) and (c) above, bids will be considered in the order in which they are entered on the bid form.

33 Any bid made by or on behalf of an employee of the Ministry of Commerce will be invalid unless the prior express consent of the Secretary is obtained.

BIDDING

34 As stated, a tenderer is permitted to make only one bid for a particular lot.

35 However, a tenderer may bid for more than one lot. In addition, a tenderer may, but is not required to, bid for more lots than are sought.

36 In either event the number of lots sought (the number of lots a tenderer is prepared to pay for, if successful) must be stated on the bid form in the space provided. It is necessary, for reasons of clarity of intention, to require tenderers to state this even if they require all of the lots for which they are bidding.

Preferences

37 An order of preference for acquiring particular lots may also be stated, but this is not compulsory. The order of preference should be shown numerically, and be a sequence of whole numbers starting with the number 1 as the highest priority, for example, 1, 2, 3 ... Equal preference may be shown by allocating the same number two or more times, for example, 1, 2, 2, 3 ... If an order of preference is not stated, it will be assumed that all bids are of equal preference. If an order of preference is not stated for all bids, it will be assumed that those bids for which preferences are not stated are the lowest, equal priority. It should be noted that where a tenderer is seeking all of the lots for which he or she is bidding, any preference stated will not affect the results.

DETERMINATION OF RESULTS

38 The following procedure will determine the results of this tender:

- a In respect of each lot, bids will be ranked in order of amount bid.
- b The winner for each lot will be identified initially as the tenderer who has bid the highest amount. Where there are two or more equal highest amounts, the winner will be determined by random selection.

- c Tenderers who have won more lots than the number they have stated as being sought will then be identified. Lots will be allocated to these tenderers in the order of the preferences they have stated, if applicable, up to the number of lots sought. Where equal preferences have been stated in respect of lots at the threshold of the number of lots sought, the lot(s) to be allocated will be determined by random selection.
- d Remaining lots will be allocated by an iterative process to the next highest tenderer where that tenderer either has not won the number of lots sought, or having already gained the number of lots sought, would gain a higher preference for one or more lots. In the latter case, the bid(s) displaced become available for reallocation. This process will be repeated until every lot has either been allocated or identified as not wanted. Where there are two or more equal next highest bids, or equal preferences, the winner or lot(s) to be allocated will be determined by random selection.

39 Failure to make the required payment in settlement will invalidate the relevant bid(s) made by the tenderer concerned. Such bids will be re-allocated as described above, but with the exception that at this stage orders of preference will be disregarded.

40 For the purposes of determining equal bids and/or preferences, as outlined above, the Ministry will make use of a computer-based random number generator.

GOODS AND SERVICES TAX ("GST")

41 The Department of Inland Revenue has advised the Ministry of Commerce that GST is not payable in respect of the deposits and interest share of unsuccessful tenderers. However, liability for GST does arise in the case of successful tenderers. Accordingly, for the purposes of determining the results of this tender, all bids will be considered to exclude GST. GST will be recovered from successful tenderers at the time that they are invoiced for payments in settlement. GST will be additional to the amount otherwise payable by the successful tenderer.

ANNOUNCEMENT OF RESULTS

42 A list of successful tenderers will be published approximately a week after the closing of the tender. Tenderers will be notified in writing of the results of their bid(s) on or before publication of this list. A list of bids made in the tender will be published by lot shortly afterwards. Final results will be published in detail as soon as any necessary clearances or authorisations under the Commerce Act 1986, where applicable, have been produced, and payments in settlement, by the tenderers concerned, have been received. All information on this tender will be published in the **New Zealand Gazette**.

UPLIFTING OF MANAGEMENT RIGHTS

43 Notices of transfer of management rights in registrable form will be available to successful tenderers as soon as the tenderer has satisfied the Secretary that clearance or authorisations under the Commerce Act 1986 are not required OR as soon as any necessary clearances or authorisations have been produced, AND any required payments in settlement have been received. It is the responsibility of the tenderers concerned to ensure that these are registered in accordance with the provisions of the Radiocommunications Act 1989.

UPLIFTING OF LICENCES

44 Licences for the purpose of registration will be available to successful tenderers as soon as the tenderer has satisfied the Secretary that clearance or authorisations under the Commerce Act 1986 are not required OR as soon as any necessary clearances or authorisations have been produced, and any required payments in settlement have been received. It is the responsibility of the tenderers concerned to ensure that these are registered in accordance with the provisions of the Radiocommunications Act 1989.

SECOND SCHEDULE

IMPORTANT INFORMATION

1 There are three parts to this Schedule. Part A describes the lots offered for tender in this schedule. Part B describes the incumbent licences to which Lot 002JJB is subject. Part C describes the incumbent licence to which Lot 003JJC is subject.

2 There are three lots offered for tender in this schedule. The three lots are:

Lot 001JJA comprises two management rights for radio frequencies suitable for the operation of a "cellular" mobile telephone service in the bands known as **AMPS A**, or for operation of other telecommunications services which are compatible with the technical conditions of the management rights.

Lot 002JJB comprises two management rights for radio frequencies suitable for the operation of a "cellular" mobile telephone service in the bands known as **TACS A**, or for operation of other telecommunications services which are compatible with the technical conditions of the management rights. Lot 002JJB is subject to incumbent licences in terms of section 173 of the Radiocommunications Act 1989. Incumbent licences affecting Lot 002JJB are listed in Part B of this Schedule.

Lot 003JJC comprises two management rights for radio frequencies suitable for the operation of a "cellular" mobile telephone service in the bands known as **TACS B**, or for operation of other telecommunications services which are compatible with the technical conditions of the management rights. Lot 003JJC is subject to an incumbent licence in terms of section 173 of the Radiocommunications Act 1989. The incumbent licence affecting Lot 003JJC is listed in Part C of this Schedule.

3 Terms and abbreviations used in lot descriptions have the following meanings:

- dBW means decibels with reference to 1 watt
- eirp means effective isotropic radiated power as defined in section 2 of the Radiocommunications Act 1989

4 Prospective tenderers should thoroughly familiarise themselves with the Radiocommunications Act 1989. This offer, and all rights granted hereunder are subject to that Act.

5 The Secretary will apply under the Radiocommunications Act 1989 to have the records of management rights recorded in the Register of Radio Frequencies on or about 29 June 1989.

SECOND SCHEDULE

PART A

LOTS FOR TENDER

LOT NUMBERS 001JJA, 002JJB AND 003JJC

LOT 001JJA

PART LOT 001JJA

1. Range of frequencies to be recorded in the Register:

Lower boundary: 825.015 MHz

Upper boundary: 835.005 MHz

2. Adjacent frequencies emission limits (expressed as maximum e.i.r.p. (in dBW) of such emissions):

Below lower boundary:

-50 dBW at 825.015 MHz to -50 dBW at 825.015 MHz.

Above upper boundary:

-50 dBW at 835.005 MHz to -50 dBW at 835.005 MHz.

[The adjacent frequencies emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where -

y = dBW

x = MHz

m = $\frac{dy}{dx}$

dx

C = the value of y where x = 0 (the y intercept)]

3. Protection limit (expressed as the e.i.r.p. (in dBW) of such limit): -50 dBW at 825.015 MHz to -50 dBW at 835.005 MHz.

PART LOT 001JJA

[The protection limit applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where -

$$y = \text{dBW}$$

$$x = \text{MHz}$$

$$m = \frac{dy}{dx}$$

$$dx$$

$$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$$

4. Conditions to apply to licences created in relation to the record of management rights:

The Manager shall not transfer the Manager's interest in this Management Right, or issue any licence, to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

5. Commencement date of the record of management rights:

29 June 1990

6. Expiry date of the record of management rights:

28 June 2010

PART LOT 001JJA

1. Range of frequencies to be recorded in the Register:

Lower boundary: 870.015 MHz

Upper boundary: 880.005 MHz

2. Adjacent frequencies emission limits (expressed as maximum e.i.r.p. (in dBW) of such emissions):

Below lower boundary:

-50 dBW at 870.015 MHz to -50 dBW at 870.015 MHz.

Above upper boundary:

-50 dBW at 880.005 MHz to -50 dBW at 880.005 MHz.

[The adjacent frequencies emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where -

y = dBW

x = MHz

m = $\frac{dy}{dx}$

dx

C = the value of y where x = 0 (the y intercept)]

3. Protection limit (expressed as the e.i.r.p. (in dBW) of such limit): -50 dBW at 870.015 MHz to -50 dBW at 880.005 MHz.

PART LOT 001JJA

[The protection limit applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where -

$$y = \text{dBW}$$

$$x = \text{MHz}$$

$$m = \frac{dy}{dx}$$

$$dx$$

$$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$$

4. Conditions to apply to licences created in relation to the record of management rights:

The Manager shall not transfer the Manager's interest in this Management Right, or issue any licence, to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

5. Commencement date of the record of management rights:

29 June 1990

6. Expiry date of the record of management rights:

28 June 2010

LOT 002JJB

PART LOT 002JJB

1. Range of frequencies to be recorded in the Register:

Lower boundary: 890.0000 MHz

Upper boundary: 897.5125 MHz

2. Adjacent frequencies emission limits (expressed as maximum e.i.r.p. (in dBW) of such emissions):

Below lower boundary:

-50 dBW at 890.0000 MHz to -50 dBW at 890.0000 MHz.

Above upper boundary:

-50 dBW at 897.5125 MHz to -50 dBW at 897.5125 MHz.

[The adjacent frequencies emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where -

$y = \text{dBW}$

$x = \text{MHz}$

$m = \frac{dy}{dx}$

dx

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

3. Protection limit (expressed as the e.i.r.p. (in dBW) of such limit): -50 dBW at 890.0000 MHz to -50 dBW at 897.5125 MHz.

PART LOT 002JJB

[The protection limit applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where -

y = dBW

x = MHz

m = $\frac{dy}{dx}$

dx

C = the value of y where x = 0 (the y intercept)]

4. Conditions to apply to licences created in relation to the record of management rights:

The Manager shall not transfer the Manager's interest in this Management Right, or issue any licence, to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

5. Commencement date of the record of management rights:

29 June 1990

6. Expiry date of the record of management rights:

28 June 2010

PART LOT 002JJB

1. Range of frequencies to be recorded in the Register:

Lower boundary: 935.0000 MHz

Upper boundary: 942.5125 MHz

2. Adjacent frequencies emission limits (expressed as maximum e.i.r.p. (in dBW) of such emissions):

Below lower boundary:

-50 dBW at 935.0000 MHz to -50 dBW at 935.0000 MHz.

Above upper boundary:

-50 dBW at 942.5125 MHz to -50 dBW at 942.5125 MHz.

[The adjacent frequencies emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where -

$y =$ dBW

$x =$ MHz

$m = \frac{dy}{dx}$

$C =$ the value of y where $x = 0$ (the y intercept)]

3. Protection limit (expressed as the e.i.r.p. (in dBW) of such limit): -50 dBW at 935.0000 MHz to -50 dBW at 942.5125 MHz.

PART LOT 002JJB

[The protection limit applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where -

$$y = \text{dBW}$$

$$x = \text{MHz}$$

$$m = \frac{dy}{dx}$$

$$dx$$

$$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$$

4. Conditions to apply to licences created in relation to the record of management rights:

The Manager shall not transfer the Manager's interest in this Management Right, or issue any licence, to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

5. Commencement date of the record of management rights:

29 June 1990

6. Expiry date of the record of management rights:

28 June 2010

LOT 003JJC

PART LOT 003JJC

1. Range of frequencies to be recorded in the Register:

Lower boundary: 897.5125 MHz

Upper boundary: 905.0125 MHz

2. Adjacent frequencies emission limits (expressed as maximum e.i.r.p. (in dBW) of such emissions):

Below lower boundary:

-50 dBW at 897.5125 MHz to -50 dBW at 897.5125 MHz.

Above upper boundary:

-50 dBW at 905.0125 MHz to -50 dBW at 905.0125 MHz.

[The adjacent frequencies emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where -

y = dBW

x = MHz

$m = \frac{dy}{dx}$

dx

C = the value of y where $x = 0$ (the y intercept)]

3. Protection limit (expressed as the e.i.r.p. (in dBW) of such limit): -50 dBW at 897.5125 MHz to -50 dBW at 905.0125 MHz.

PART LOT 003JJC

[The protection limit applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where -

y = dBW

x = MHz

m = $\frac{dy}{dx}$

dx

C = the value of y where x = 0 (the y intercept)]

4. Conditions to apply to licences created in relation to the record of management rights:

The Manager shall not transfer the Manager's interest in this Management Right, or issue any licence, to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

5. Commencement date of the record of management rights:

29 June 1990

6. Expiry date of the record of management rights:

28 June 2010

PART LOT 003JJC

1. Range of frequencies to be recorded in the Register:

Lower boundary: 942.5125 MHz

Upper boundary: 950.0125 MHz

2. Adjacent frequencies emission limits (expressed as maximum e.i.r.p. (in dBW) of such emissions):

Below lower boundary:

-50 dBW at 942.5125 MHz to -50 dBW at 942.5125 MHz.

Above upper boundary:

-50 dBW at 950.0125 MHz to -50 dBW at 950.0125 MHz.

[The adjacent frequencies emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where -

y = dBW

x = MHz

m = $\frac{dy}{dx}$

dx

C = the value of y where x = 0 (the y intercept)]

3. Protection limit (expressed as the e.i.r.p. (in dBW) of such limit): -50 dBW at 942.5125 MHz to -50 dBW at 950.0125 MHz.

PART LOT 003JJC

[The protection limit applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where -

$$y = \text{dBW}$$

$$x = \text{MHz}$$

$$m = \frac{dy}{dx}$$

$$dx$$

$$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$$

4. Conditions to apply to licences created in relation to the record of management rights:

The Manager shall not transfer the Manager's interest in this Management Right, or issue any licence, to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

5. Commencement date of the record of management rights:

29 June 1990

6. Expiry date of the record of management rights:

28 June 2010

SECOND SCHEDULE

PART B

INCUMBENT LICENCES TO WHICH LOT 002JJB IS SUBJECT

Rightholder: The Crown Acting By And Through The Secretary

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Map:	NZMS260/Q07
Grid Reference:	220062
Altitude:	509 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 894.00 MHz

(c) Maximum power of emissions permitted under this licence: 9.1 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 1 MHz above the frequency to which this licence relates.
- Not more than 1 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 893 MHz to -50 dBW at 893 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

-50 dBW at 895 MHz to -50 dBW at 895 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

2M00G9WWT

(g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees relative to True North)]

000 degrees up to 076 degrees: 10 dBW.
Over 076 degrees up to 084 degrees: 9.1 dBW.
Over 084 degrees up to 360 degrees: 10 dBW.

(h) Antenna polarisation of transmitter: Vertical

(i) Antenna height: 20 metres above ground level

2. Other particulars.

(a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
NZMS 260-Q07	303075

(b) Maximum permitted interfering signals applying to receive coverage locations: 45 dB μ V/m.

(c) Commencement date of licence: 29 June 1990

(d) Expiry date of licence: 28 June 2010

(e) Conditions applying to the exercise of the rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

The maximum interfering signal shall be 45 dB μ V/m measured with a vertically polarised antenna or 25 dB μ V/m measured with a horizontally polarized antenna.

Rightholder: The Crown Acting By And Through The Secretary

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Map:	NZMS260/R22
Grid Reference:	855392
Altitude:	20 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 894.00 MHz

(c) Maximum power of emissions permitted under this licence: 20 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 1 MHz above the frequency to which this licence relates.
- Not more than 1 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 893 MHz to -50 dBW at 893 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

-50 dBW at 895 MHz to -50 dBW at 895 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

2M00M7EJT

(g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees relative to True North)]

000 degrees up to 023 degrees: 10 dBW.
Over 023 degrees up to 031 degrees: 20 dBW.
Over 031 degrees up to 360 degrees: 10 dBW.

(h) Antenna polarisation of transmitter: Vertical

(i) Antenna height: 20 metres above ground level

2. Other particulars.

(a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
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NZMS 260-S21 997658

(b) Maximum permitted interfering signals applying to receive coverage locations: 45 dB μ V/m.

(c) Commencement date of licence: 29 June 1990

(d) Expiry date of licence: 28 June 2010

(e) Conditions applying to the exercise of the rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

The maximum interfering signal shall be 45 dB μ V/m measured with a vertically polarised antenna or 25 dB μ V/m measured with a horizontally polarized antenna.

SECOND SCHEDULE

PART C

INCUMBENT LICENCE TO WHICH LOT 003JJC IS SUBJECT

Rightholder: Planned Broadcasting Limited

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Site Name:	Mt Smart
Map:	NZMS260/R11
Grid Reference:	718745
Altitude:	30 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 946.25 MHz

(c) Maximum power of emissions permitted under this licence: 23.5 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than .25 MHz above the frequency to which this licence relates.
- Not more than .25 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 946 MHz to -50 dBW at 946 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

-50 dBW at 946.5 MHz to -50 dBW at 946.5 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

490KF9WWF

- (g) Horizontal radiation pattern of transmitter:
 [maximum e.i.r.p. (in dBW) per sector (in degrees relative to True North)]
- | | |
|-------------------------------------|-----------|
| 000 degrees up to 257 degrees: | 10 dBW. |
| Over 257 degrees up to 277 degrees: | 23.5 dBW. |
| Over 277 degrees up to 360 degrees: | 10 dBW. |
- (h) Antenna polarisation of transmitter: Vertical
- (i) Antenna height: 20 metres above ground level

2. Other particulars.

- (a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
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NZMS 260-R11	501740
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- (b) Maximum permitted interfering signals applying to receive coverage locations: 31 dB μ V/m.
- (c) Commencement date of licence: 29 June 1990
- (d) Expiry date of licence: 28 June 1995
- (e) Conditions applying to the exercise of the rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

The maximum interfering signal shall be 31 dB μ V/m measured with a vertically polarised antenna or 11 dB μ V/m measured with a horizontally polarized antenna.

THIRD SCHEDULE**IMPORTANT INFORMATION**

1 There are a total of 14 lots offered for tender in this Third Schedule. Each lot is a single licence suitable for UHF television broadcasting in the Queenstown area.

2 Terms and abbreviations used in lot descriptions have the following meanings:

- Location is specified in NZMS 1 1:63,360 series maps
- Receive coverage locations are specified in NZMS 1 1:63,360 series maps
- Class of emission is given in terms of emission designations in Article 4 of the International Radio Regulations and CCIR Recommendations
- dBW means decibels with reference to 1 watt
- eirp means effective isotropic radiated power as defined in section 2 of the Radiocommunications Act 1989
- dBuV/m means a field strength intensity in decibels with reference to 1 microvolt per metre. Field strengths are measured in accordance with the Recommendations and Reports of the CCIR.

3 The successful tenderer in relation to each lot will be granted, upon payment in accordance with the First Schedule above, a licence or licences that upon registration will authorise the tenderer to transmit in accordance with the specifications set out in relation to the relevant lot and the general provisions specified on the following pages. Prospective tenderers should thoroughly familiarise themselves with the Radiocommunications Act 1989. This offer and all rights granted hereunder are subject to that Act.

4 All licences granted pursuant to this tender shall expire on 11 March 2010.

LOT 004JJD

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Site Name:	Penninsula Hill
Map:	NZMS 1-S132
Grid Reference:	607691
Altitude:	844 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 527.25 MHz

(c) Maximum power of emissions permitted under this licence: 35 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 6.75 MHz above the frequency to which this licence relates.
- Not more than 1.25 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 510 MHz to -43 dBW at 513 MHz.
 -43 dBW at 513 MHz to -43 dBW at 521 MHz.
 -43 dBW at 521 MHz to 5 dBW at 526 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

5 dBW at 534 MHz to -43 dBW at 537 MHz.
 -43 dBW at 537 MHz to -43 dBW at 809 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

6M25C3F/750KF3EGN

LOT 004JJD

(g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees
relative to True North)]

000 degrees up to 080 degrees: 35 dBW.
Over 080 degrees up to 230 degrees: 20 dBW.
Over 230 degrees up to 360 degrees: 35 dBW.

(h) Antenna polarisation of transmitter: Horizontal

(i) Antenna height: 25 metres above ground level

2. Other particulars.

(a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
NZMS 1-S123	700819
NZMS 1-S132	554705, 575683, 616715

(b) Maximum permitted interfering signals applying to
receive coverage locations: 20 dB μ V/m.

(c) Commencement date of licence: 29 June 1990

(d) Expiry date of licence: 11 March 2010

(e) Conditions applying to the exercise of the
rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

Upon establishment of the service, a verification of the transmitter's technical parameters shall be made with the following information supplied to the manager:

(i) A map showing the service coverage area with a median field strength contour (measured at a height of 10 metres) of 70 dB μ V/m. The field strength contour is to be based entirely on measurements made in the field.

(ii) A polar plot of the horizontal radiation pattern of the installed transmitter obtained by field strength measurements.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

LOT 004JJD

Vision and sound frequencies shall be maintained within ± 500 Hz of the nominal carrier frequency. However tighter tolerances may be necessary where precision carrier offset is required by the manager.

The effective radiated power of any emission on 156.8 MHz ± 8 kHz shall be attenuated to -77 dBW (e.i.r.p.).

LOT 005JJE

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Site Name: Penninsula Hill
 Map: NZMS 1-S132
 Grid Reference: 607691
 Altitude: 844 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 559.25 MHz

(c) Maximum power of emissions permitted under this licence: 35 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 6.75 MHz above the frequency to which this licence relates.
- Not more than 1.25 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 510 MHz to -43 dBW at 513 MHz.
 -43 dBW at 513 MHz to -43 dBW at 553 MHz.
 -43 dBW at 553 MHz to 5 dBW at 558 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

5 dBW at 566 MHz to -43 dBW at 569 MHz.
 -43 dBW at 569 MHz to -43 dBW at 809 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

6M25C3F/750KF3EGN

LOT 005JJE

(g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees
relative to True North)]

000 degrees up to 080 degrees: 35 dBW.
Over 080 degrees up to 230 degrees: 20 dBW.
Over 230 degrees up to 360 degrees: 35 dBW.

(h) Antenna polarisation of transmitter: Horizontal

(i) Antenna height: 25 metres above ground level

2. Other particulars.

(a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
NZMS 1-S123	700819
NZMS 1-S132	554705, 575683, 616715

(b) Maximum permitted interfering signals applying to
receive coverage locations: 20 dB μ V/m.

(c) Commencement date of licence: 29 June 1990

(d) Expiry date of licence: 11 March 2010

(e) Conditions applying to the exercise of the
rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

Upon establishment of the service, a verification of the transmitter's technical parameters shall be made with the following information supplied to the manager:

- (i) A map showing the service coverage area with a median field strength contour (measured at a height of 10 metres) of 70 dB μ V/m. The field strength contour is to be based entirely on measurements made in the field.
- (ii) A polar plot of the horizontal radiation pattern of the installed transmitter obtained by field strength measurements.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

LOT 005JJE

Vision and sound frequencies shall be maintained within ± 500 Hz of the nominal carrier frequency. However tighter tolerances may be necessary where precision carrier offset is required by the manager.

The effective radiated power of any emission on 156.8 MHz ± 8 kHz shall be attenuated to -77 dBW (e.i.r.p.).

LOT 006JJF

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Site Name: Penninsula Hill
 Map: NZMS 1-S132
 Grid Reference: 607691
 Altitude: 844 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 655.25 MHz

(c) Maximum power of emissions permitted under this licence: 35 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 6.75 MHz above the frequency to which this licence relates.
- Not more than 1.25 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 510 MHz to -43 dBW at 513 MHz.
 -43 dBW at 513 MHz to -43 dBW at 649 MHz.
 -43 dBW at 649 MHz to 5 dBW at 654 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

5 dBW at 662 MHz to -43 dBW at 665 MHz.
 -43 dBW at 665 MHz to -43 dBW at 809 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

6M25C3F/750KF3EGN

LOT 006JJF

(g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees
relative to True North)]

000 degrees up to 080 degrees: 35 dBW.
Over 080 degrees up to 230 degrees: 20 dBW.
Over 230 degrees up to 360 degrees: 35 dBW.

(h) Antenna polarisation of transmitter: Horizontal

(i) Antenna height: 25 metres above ground level

2. Other particulars.

(a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
NZMS 1-S123	700819
NZMS 1-S132	554705, 575683, 616715

(b) Maximum permitted interfering signals applying to
receive coverage locations: 20 dB μ V/m.

(c) Commencement date of licence: 29 June 1990

(d) Expiry date of licence: 11 March 2010

(e) Conditions applying to the exercise of the
rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

Upon establishment of the service, a verification of the transmitter's technical parameters shall be made with the following information supplied to the manager:

- (i) A map showing the service coverage area with a median field strength contour (measured at a height of 10 metres) of 70 dB μ V/m. The field strength contour is to be based entirely on measurements made in the field.
- (ii) A polar plot of the horizontal radiation pattern of the installed transmitter obtained by field strength measurements.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

LOT 006JJF

Vision and sound frequencies shall be maintained within ± 500 Hz of the nominal carrier frequency. However tighter tolerances may be necessary where precision carrier offset is required by the manager.

The effective radiated power of any emission on 156.8 MHz ± 8 kHz shall be attenuated to -77 dBW (e.i.r.p.).

LOT 007JJG

1. Particulars of transmitter to which this licence relates.
- (a) Location of transmitter:
- | | |
|-----------------|-----------------------|
| Site Name: | Penninsula Hill |
| Map: | NZMS 1-S132 |
| Grid Reference: | 607691 |
| Altitude: | 844 m Above Sea Level |
- (b) Frequency on which transmissions are permitted by this licence: 687.25 MHz
- (c) Maximum power of emissions permitted under this licence: 35 dBW (e.i.r.p.)
- (d) Maximum bandwidth of emissions permitted under this licence:
- Not more than 6.75 MHz above the frequency to which this licence relates.
 - Not more than 1.25 MHz below the frequency to which this licence relates.
- (e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):
- (i) Limits applying to frequencies below the frequency to which this licence relates:
- 50 dBW at 510 MHz to -43 dBW at 513 MHz.
 - 43 dBW at 513 MHz to -43 dBW at 681 MHz.
 - 43 dBW at 681 MHz to 5 dBW at 686 MHz.
- (ii) Limits applying to frequencies above the frequency to which this licence relates:
- 5 dBW at 694 MHz to -43 dBW at 697 MHz.
 - 43 dBW at 697 MHz to -43 dBW at 809 MHz.
- [Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:
- $$y = mx + C$$
- where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,
 $C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]
- (f) Class of emissions permitted under this licence:
- 6M25C3F/750KF3EGN

LOT 007JJG

(g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees
relative to True North)]

000 degrees up to 080 degrees: 35 dBW.
Over 080 degrees up to 230 degrees: 20 dBW.
Over 230 degrees up to 360 degrees: 35 dBW.

(h) Antenna polarisation of transmitter: Horizontal

(i) Antenna height: 25 metres above ground level

2. Other particulars.

(a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
NZMS 1-S123	700819
NZMS 1-S132	554705, 575683, 616715

(b) Maximum permitted interfering signals applying to
receive coverage locations: 20 dB μ V/m.

(c) Commencement date of licence: 29 June 1990

(d) Expiry date of licence: 11 March 2010

(e) Conditions applying to the exercise of the
rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

Upon establishment of the service, a verification of the transmitter's technical parameters shall be made with the following information supplied to the manager:

- (i) A map showing the service coverage area with a median field strength contour (measured at a height of 10 metres) of 70 dB μ V/m. The field strength contour is to be based entirely on measurements made in the field.
- (ii) A polar plot of the horizontal radiation pattern of the installed transmitter obtained by field strength measurements.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

LOT 007JJG

Vision and sound frequencies shall be maintained within ± 500 Hz of the nominal carrier frequency. However tighter tolerances may be necessary where precision carrier offset is required by the manager.

The effective radiated power of any emission on 156.8 MHz ± 8 kHz shall be attenuated to -77 dBW (e.i.r.p.).

LOT 008JJH

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Site Name:	Penninsula Hill
Map:	NZMS 1-S132
Grid Reference:	607691
Altitude:	844 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 719.25 MHz

(c) Maximum power of emissions permitted under this licence: 35 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 6.75 MHz above the frequency to which this licence relates.
- Not more than 1.25 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 510 MHz to -43 dBW at 513 MHz.
 -43 dBW at 513 MHz to -43 dBW at 713 MHz.
 -43 dBW at 713 MHz to 5 dBW at 718 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

5 dBW at 726 MHz to -43 dBW at 729 MHz.
 -43 dBW at 729 MHz to -43 dBW at 809 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

6M25C3F/750KF3EGN

LOT 008JJH

(g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees
relative to True North)]

000 degrees up to 080 degrees: 35 dBW.
Over 080 degrees up to 230 degrees: 20 dBW.
Over 230 degrees up to 360 degrees: 35 dBW.

(h) Antenna polarisation of transmitter: Horizontal

(i) Antenna height: 25 metres above ground level

2. Other particulars.

(a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
NZMS 1-S123	700819
NZMS 1-S132	554705, 575683, 616715

(b) Maximum permitted interfering signals applying to
receive coverage locations: 20 dB μ V/m.

(c) Commencement date of licence: 29 June 1990

(d) Expiry date of licence: 11 March 2010

(e) Conditions applying to the exercise of the
rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

Upon establishment of the service, a verification of the transmitter's technical parameters shall be made with the following information supplied to the manager:

- (i) A map showing the service coverage area with a median field strength contour (measured at a height of 10 metres) of 70 dB μ V/m. The field strength contour is to be based entirely on measurements made in the field.
- (ii) A polar plot of the horizontal radiation pattern of the installed transmitter obtained by field strength measurements.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

LOT 008JJH

Vision and sound frequencies shall be maintained within ± 500 Hz of the nominal carrier frequency. However tighter tolerances may be necessary where precision carrier offset is required by the manager.

The effective radiated power of any emission on 156.8 MHz ± 8 kHz shall be attenuated to -77 dBW (e.i.r.p.).

LOT 009JJI

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Site Name:	Penninsula Hill
Map:	NZMS 1-S132
Grid Reference:	607691
Altitude:	844 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 751.25 MHz

(c) Maximum power of emissions permitted under this licence: 35 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 6.75 MHz above the frequency to which this licence relates.
- Not more than 1.25 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 510 MHz to -43 dBW at 513 MHz.
 -43 dBW at 513 MHz to -43 dBW at 745 MHz.
 -43 dBW at 745 MHz to 5 dBW at 750 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

5 dBW at 758 MHz to -43 dBW at 761 MHz.
 -43 dBW at 761 MHz to -43 dBW at 809 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)]}$

(f) Class of emissions permitted under this licence:

6M25C3F/750KF3EGN

LOT 009JJI

(g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees relative to True North)]

000 degrees up to 080 degrees: 35 dBW.
Over 080 degrees up to 230 degrees: 20 dBW.
Over 230 degrees up to 360 degrees: 35 dBW.

(h) Antenna polarisation of transmitter: Horizontal

(i) Antenna height: 25 metres above ground level

2. Other particulars.

(a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
NZMS 1-S123	700819
NZMS 1-S132	554705, 575683, 616715

(b) Maximum permitted interfering signals applying to receive coverage locations: 20 dB μ V/m.

(c) Commencement date of licence: 29 June 1990

(d) Expiry date of licence: 11 March 2010

(e) Conditions applying to the exercise of the rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

Upon establishment of the service, a verification of the transmitter's technical parameters shall be made with the following information supplied to the manager:

(i) A map showing the service coverage area with a median field strength contour (measured at a height of 10 metres) of 70 dB μ V/m. The field strength contour is to be based entirely on measurements made in the field.

(ii) A polar plot of the horizontal radiation pattern of the installed transmitter obtained by field strength measurements.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

LOT 009JJI

Vision and sound frequencies shall be maintained within ± 500 Hz of the nominal carrier frequency. However tighter tolerances may be necessary where precision carrier offset is required by the manager.

The effective radiated power of any emission on 156.8 MHz ± 8 kHz shall be attenuated to -77 dBW (e.i.r.p.).

LOT 010JAJ

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Site Name: Penninsula Hill
 Map: NZMS 1-S132
 Grid Reference: 607691
 Altitude: 844 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 783.25 MHz

(c) Maximum power of emissions permitted under this licence: 35 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 6.75 MHz above the frequency to which this licence relates.
- Not more than 1.25 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 510 MHz to -43 dBW at 513 MHz.
 -43 dBW at 513 MHz to -43 dBW at 777 MHz.
 -43 dBW at 777 MHz to 5 dBW at 782 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

5 dBW at 790 MHz to -43 dBW at 793 MHz.
 -43 dBW at 793 MHz to -43 dBW at 809 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

6M25C3F/750KF3EGN

LOT 010JAJ

(g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees relative to True North)]

000 degrees up to 080 degrees: 35 dBW.
Over 080 degrees up to 230 degrees: 20 dBW.
Over 230 degrees up to 360 degrees: 35 dBW.

(h) Antenna polarisation of transmitter: Horizontal

(i) Antenna height: 25 metres above ground level

2. Other particulars.

(a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
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NZMS 1-S123	700819
NZMS 1-S132	554705, 575683, 616715

(b) Maximum permitted interfering signals applying to receive coverage locations: 20 dB μ V/m.

(c) Commencement date of licence: 29 June 1990

(d) Expiry date of licence: 11 March 2010

(e) Conditions applying to the exercise of the rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

Upon establishment of the service, a verification of the transmitter's technical parameters shall be made with the following information supplied to the manager:

(i) A map showing the service coverage area with a median field strength contour (measured at a height of 10 metres) of 70 dB μ V/m. The field strength contour is to be based entirely on measurements made in the field.

(ii) A polar plot of the horizontal radiation pattern of the installed transmitter obtained by field strength measurements.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

LOT 010JAJ

Vision and sound frequencies shall be maintained within ± 500 Hz of the nominal carrier frequency. However tighter tolerances may be necessary where precision carrier offset is required by the manager.

The effective radiated power of any emission on 156.8 MHz ± 8 kHz shall be attenuated to -77 dBW (e.i.r.p.).

LOT 011JAA

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Site Name: Penninsula Hill
 Map: NZMS 1-S132
 Grid Reference: 607691
 Altitude: 844 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 543.25 MHz

(c) Maximum power of emissions permitted under this licence: 35 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 6.75 MHz above the frequency to which this licence relates.
- Not more than 1.25 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 510 MHz to -43 dBW at 513 MHz.
 -43 dBW at 513 MHz to -43 dBW at 537 MHz.
 -43 dBW at 537 MHz to 5 dBW at 542 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

5 dBW at 550 MHz to -43 dBW at 553 MHz.
 -43 dBW at 553 MHz to -43 dBW at 809 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

6M25C3F/750KF3EGN

LOT 011JAA

(g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees
relative to True North)]

000 degrees up to 080 degrees: 35 dBW.
Over 080 degrees up to 230 degrees: 20 dBW.
Over 230 degrees up to 360 degrees: 35 dBW.

(h) Antenna polarisation of transmitter: Horizontal

(i) Antenna height: 25 metres above ground level

2. Other particulars.

(a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
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NZMS 1-S123	700819
NZMS 1-S132	554705, 575683, 616715

(b) Maximum permitted interfering signals applying to
receive coverage locations: 49 dB μ V/m.

(c) Commencement date of licence: 29 June 1990

(d) Expiry date of licence: 11 March 2010

(e) Conditions applying to the exercise of the
rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

Upon establishment of the service, a verification of the transmitter's technical parameters shall be made with the following information supplied to the manager:

(i) A map showing the service coverage area with a median field strength contour (measured at a height of 10 metres) of 70 dB μ V/m. The field strength contour is to be based entirely on measurements made in the field.

(ii) A polar plot of the horizontal radiation pattern of the installed transmitter obtained by field strength measurements.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

LOT 011JAA

Vision and sound frequencies shall be maintained within ± 500 Hz of the nominal carrier frequency. However tighter tolerances may be necessary where precision carrier offset is required by the manager.

The effective radiated power of any emission on 156.8 MHz ± 8 kHz shall be attenuated to -77 dBW (e.i.r.p.).

The maximum interfering signal shall be 49 dB μ V/m measured with a horizontally polarised antenna or 54 dB μ V/m measured with a vertically polarized antenna.

LOT 012JAB

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Site Name: Penninsula Hill
 Map: NZMS 1-S132
 Grid Reference: 607691
 Altitude: 844 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 575.25 MHz

(c) Maximum power of emissions permitted under this licence: 35 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 6.75 MHz above the frequency to which this licence relates.
- Not more than 1.25 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 510 MHz to -43 dBW at 513 MHz.
 -43 dBW at 513 MHz to -43 dBW at 569 MHz.
 -43 dBW at 569 MHz to 5 dBW at 574 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

5 dBW at 582 MHz to -43 dBW at 585 MHz.
 -43 dBW at 585 MHz to -43 dBW at 809 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

6M25C3F/750KF3EGN

- (g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees relative to True North)]
- | | |
|-------------------------------------|---------|
| 000 degrees up to 080 degrees: | 35 dBW. |
| Over 080 degrees up to 230 degrees: | 20 dBW. |
| Over 230 degrees up to 360 degrees: | 35 dBW. |
- (h) Antenna polarisation of transmitter: Horizontal
- (i) Antenna height: 25 metres above ground level
2. Other particulars.
- (a) Receive coverage locations:
- | <u>Map</u> | <u>Grid References</u> |
|-------------|------------------------|
| NZMS 1-S123 | 700819 |
| NZMS 1-S132 | 554705, 575683, 616715 |
- (b) Maximum permitted interfering signals applying to receive coverage locations: 49 dB μ V/m.
- (c) Commencement date of licence: 29 June 1990
- (d) Expiry date of licence: 11 March 2010
- (e) Conditions applying to the exercise of the rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

Upon establishment of the service, a verification of the transmitter's technical parameters shall be made with the following information supplied to the manager:

- (i) A map showing the service coverage area with a median field strength contour (measured at a height of 10 metres) of 70 dB μ V/m. The field strength contour is to be based entirely on measurements made in the field.
- (ii) A polar plot of the horizontal radiation pattern of the installed transmitter obtained by field strength measurements.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

LOT 012JAB

Vision and sound frequencies shall be maintained within ± 500 Hz of the nominal carrier frequency. However tighter tolerances may be necessary where precision carrier offset is required by the manager.

The effective radiated power of any emission on 156.8 MHz ± 8 kHz shall be attenuated to -77 dBW (e.i.r.p.).

The maximum interfering signal shall be 49 dB μ V/m measured with a horizontally polarised antenna or 54 dB μ V/m measured with a vertically polarized antenna.

LOT 013JAC

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Site Name:	Penninsula Hill
Map:	NZMS 1-S132
Grid Reference:	607691
Altitude:	844 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 671.25 MHz

(c) Maximum power of emissions permitted under this licence: 35 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 6.75 MHz above the frequency to which this licence relates.
- Not more than 1.25 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 510 MHz to -43 dBW at 513 MHz.
 -43 dBW at 513 MHz to -43 dBW at 665 MHz.
 -43 dBW at 665 MHz to 5 dBW at 670 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

5 dBW at 678 MHz to -43 dBW at 681 MHz.
 -43 dBW at 681 MHz to -43 dBW at 809 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

6M25C3F/750KF3EGN

LOT 013JAC

(g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees
relative to True North)]

000 degrees up to 080 degrees: 35 dBW.
Over 080 degrees up to 230 degrees: 20 dBW.
Over 230 degrees up to 360 degrees: 35 dBW.

(h) Antenna polarisation of transmitter: Horizontal

(i) Antenna height: 25 metres above ground level

2. Other particulars.

(a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
NZMS 1-S123	700819
NZMS 1-S132	554705, 575683, 616715

(b) Maximum permitted interfering signals applying to
receive coverage locations: 49 dB μ V/m.

(c) Commencement date of licence: 29 June 1990

(d) Expiry date of licence: 11 March 2010

(e) Conditions applying to the exercise of the
rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

Upon establishment of the service, a verification of the transmitter's technical parameters shall be made with the following information supplied to the manager:

(i) A map showing the service coverage area with a median field strength contour (measured at a height of 10 metres) of 70 dB μ V/m. The field strength contour is to be based entirely on measurements made in the field.

(ii) A polar plot of the horizontal radiation pattern of the installed transmitter obtained by field strength measurements.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

LOT 013JAC

Vision and sound frequencies shall be maintained within ± 500 Hz of the nominal carrier frequency. However tighter tolerances may be necessary where precision carrier offset is required by the manager.

The effective radiated power of any emission on 156.8 MHz ± 8 kHz shall be attenuated to -77 dBW (e.i.r.p.).

The maximum interfering signal shall be 49 dB μ V/m measured with a horizontally polarised antenna or 54 dB μ V/m measured with a vertically polarized antenna.

LOT 014JAD

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Site Name: Penninsula Hill
 Map: NZMS 1-S132
 Grid Reference: 607691
 Altitude: 844 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 703.25 MHz

(c) Maximum power of emissions permitted under this licence: 35 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 6.75 MHz above the frequency to which this licence relates.
- Not more than 1.25 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 510 MHz to -43 dBW at 513 MHz.
 -43 dBW at 513 MHz to -43 dBW at 697 MHz.
 -43 dBW at 697 MHz to 5 dBW at 702 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

5 dBW at 710 MHz to -43 dBW at 713 MHz.
 -43 dBW at 713 MHz to -43 dBW at 809 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

6M25C3F/750KF3EGN

LOT 014JAD

(g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees
relative to True North)]

000 degrees up to 080 degrees: 35 dBW.
Over 080 degrees up to 230 degrees: 20 dBW.
Over 230 degrees up to 360 degrees: 35 dBW.

(h) Antenna polarisation of transmitter: Horizontal

(i) Antenna height: 25 metres above ground level

2. Other particulars.

(a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
NZMS 1-S123	700819
NZMS 1-S132	554705, 575683, 616715

(b) Maximum permitted interfering signals applying to
receive coverage locations: 49 dB μ V/m.

(c) Commencement date of licence: 29 June 1990

(d) Expiry date of licence: 11 March 2010

(e) Conditions applying to the exercise of the
rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

Upon establishment of the service, a verification of the transmitter's technical parameters shall be made with the following information supplied to the manager:

(i) A map showing the service coverage area with a median field strength contour (measured at a height of 10 metres) of 70 dB μ V/m. The field strength contour is to be based entirely on measurements made in the field.

(ii) A polar plot of the horizontal radiation pattern of the installed transmitter obtained by field strength measurements.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

LOT 014JAD

Vision and sound frequencies shall be maintained within ± 500 Hz of the nominal carrier frequency. However tighter tolerances may be necessary where precision carrier offset is required by the manager.

The effective radiated power of any emission on 156.8 MHz ± 8 kHz shall be attenuated to -77 dBW (e.i.r.p.).

The maximum interfering signal shall be 49 dB μ V/m measured with a horizontally polarised antenna or 54 dB μ V/m measured with a vertically polarized antenna.

LOT 015JAE

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Site Name:	Penninsula Hill
Map:	NZMS 1-S132
Grid Reference:	607691
Altitude:	844 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 735.25 MHz

(c) Maximum power of emissions permitted under this licence: 35 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 6.75 MHz above the frequency to which this licence relates.
- Not more than 1.25 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 510 MHz to -43 dBW at 513 MHz.
 -43 dBW at 513 MHz to -43 dBW at 729 MHz.
 -43 dBW at 729 MHz to 5 dBW at 734 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

5 dBW at 742 MHz to -43 dBW at 745 MHz.
 -43 dBW at 745 MHz to -43 dBW at 809 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

6M25C3F/750KF3EGN

LOT 015JAE

(g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees
relative to True North)]

000 degrees up to 080 degrees: 35 dBW.
Over 080 degrees up to 230 degrees: 20 dBW.
Over 230 degrees up to 360 degrees: 35 dBW.

(h) Antenna polarisation of transmitter: Horizontal

(i) Antenna height: 25 metres above ground level

2. Other particulars.

(a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
NZMS 1-S123	700819
NZMS 1-S132	554705, 575683, 616715

(b) Maximum permitted interfering signals applying to
receive coverage locations: 49 dB μ V/m.

(c) Commencement date of licence: 29 June 1990

(d) Expiry date of licence: 11 March 2010

(e) Conditions applying to the exercise of the
rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

Upon establishment of the service, a verification of the transmitter's technical parameters shall be made with the following information supplied to the manager:

(i) A map showing the service coverage area with a median field strength contour (measured at a height of 10 metres) of 70 dB μ V/m. The field strength contour is to be based entirely on measurements made in the field.

(ii) A polar plot of the horizontal radiation pattern of the installed transmitter obtained by field strength measurements.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

LOT 015JAE

Vision and sound frequencies shall be maintained within ± 500 Hz of the nominal carrier frequency. However tighter tolerances may be necessary where precision carrier offset is required by the manager.

The effective radiated power of any emission on 156.8 MHz ± 8 kHz shall be attenuated to -77 dBW (e.i.r.p.).

The maximum interfering signal shall be 49 dB μ V/m measured with a horizontally polarised antenna or 54 dB μ V/m measured with a vertically polarized antenna.

LOT 016JAF

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Site Name:	Penninsula Hill
Map:	NZMS 1-S132
Grid Reference:	607691
Altitude:	844 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 767.25 MHz

(c) Maximum power of emissions permitted under this licence: 35 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 6.75 MHz above the frequency to which this licence relates.
- Not more than 1.25 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 510 MHz to -43 dBW at 513 MHz.
 -43 dBW at 513 MHz to -43 dBW at 761 MHz.
 -43 dBW at 761 MHz to 5 dBW at 766 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

5 dBW at 774 MHz to -43 dBW at 777 MHz.
 -43 dBW at 777 MHz to -43 dBW at 809 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

6M25C3F/750KF3EGN

LOT 016JAF

- (g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees relative to True North)]

000 degrees up to 080 degrees: 35 dBW.
Over 080 degrees up to 230 degrees: 20 dBW.
Over 230 degrees up to 360 degrees: 35 dBW.

- (h) Antenna polarisation of transmitter: Horizontal
(i) Antenna height: 25 metres above ground level

2. Other particulars.

- (a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
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NZMS 1-S123	700819
NZMS 1-S132	554705, 575683, 616715

- (b) Maximum permitted interfering signals applying to receive coverage locations: 49 dB μ V/m.
(c) Commencement date of licence: 29 June 1990
(d) Expiry date of licence: 11 March 2010
(e) Conditions applying to the exercise of the rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

Upon establishment of the service, a verification of the transmitter's technical parameters shall be made with the following information supplied to the manager:

- (i) A map showing the service coverage area with a median field strength contour (measured at a height of 10 metres) of 70 dB μ V/m. The field strength contour is to be based entirely on measurements made in the field.
(ii) A polar plot of the horizontal radiation pattern of the installed transmitter obtained by field strength measurements.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

LOT 016JAF

Vision and sound frequencies shall be maintained within ± 500 Hz of the nominal carrier frequency. However tighter tolerances may be necessary where precision carrier offset is required by the manager.

The effective radiated power of any emission on 156.8 MHz ± 8 kHz shall be attenuated to -77 dBW (e.i.r.p.).

The maximum interfering signal shall be 49 dB μ V/m measured with a horizontally polarised antenna or 54 dB μ V/m measured with a vertically polarized antenna.

LOT 017JAG

1. Particulars of transmitter to which this licence relates.

(a) Location of transmitter:

Site Name:	Penninsula Hill
Map:	NZMS 1-S132
Grid Reference:	607691
Altitude:	844 m Above Sea Level

(b) Frequency on which transmissions are permitted by this licence: 799.25 MHz

(c) Maximum power of emissions permitted under this licence: 35 dBW (e.i.r.p.)

(d) Maximum bandwidth of emissions permitted under this licence:

- Not more than 6.75 MHz above the frequency to which this licence relates.
- Not more than 1.25 MHz below the frequency to which this licence relates.

(e) Unwanted emission limits applying to emissions from the transmitter (expressed as maximum e.i.r.p. (in dBW) of such emissions):

(i) Limits applying to frequencies below the frequency to which this licence relates:

-50 dBW at 510 MHz to -43 dBW at 513 MHz.
 -43 dBW at 513 MHz to -43 dBW at 793 MHz.
 -43 dBW at 793 MHz to 5 dBW at 798 MHz.

(ii) Limits applying to frequencies above the frequency to which this licence relates:

5 dBW at 806 MHz to -43 dBW at 809 MHz.

[Note: The unwanted emission limits applicable to frequencies within each specified range shall be determined in accordance with the following formula:

$$y = mx + C$$

where - $y = \text{dBW}$, $x = \text{MHz}$, $m = \frac{dy}{dx}$,

$C = \text{the value of } y \text{ where } x = 0 \text{ (the } y \text{ intercept)}$]

(f) Class of emissions permitted under this licence:

6M25C3F/750KF3EGN

LOT 017JAG

(g) Horizontal radiation pattern of transmitter:
[maximum e.i.r.p. (in dBW) per sector (in degrees
relative to True North)]

000 degrees up to 080 degrees: 35 dBW.
Over 080 degrees up to 230 degrees: 20 dBW.
Over 230 degrees up to 360 degrees: 35 dBW.

(h) Antenna polarisation of transmitter: Horizontal

(i) Antenna height: 25 metres above ground level

2. Other particulars.

(a) Receive coverage locations:

<u>Map</u>	<u>Grid References</u>
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NZMS 1-S123	700819
NZMS 1-S132	554705, 575683, 616715

(b) Maximum permitted interfering signals applying to
receive coverage locations: 49 dB μ V/m.

(c) Commencement date of licence: 29 June 1990

(d) Expiry date of licence: 11 March 2010

(e) Conditions applying to the exercise of the
rightholder's rights under this licence:

The rightholder shall not transfer the rightholder's interest in this licence to any foreign government, or to any party on behalf of any foreign government, without first obtaining the written approval of the Secretary of Commerce.

Upon establishment of the service, a verification of the transmitter's technical parameters shall be made with the following information supplied to the manager:

- (i) A map showing the service coverage area with a median field strength contour (measured at a height of 10 metres) of 70 dB μ V/m. The field strength contour is to be based entirely on measurements made in the field.
- (ii) A polar plot of the horizontal radiation pattern of the installed transmitter obtained by field strength measurements.

The maximum permitted interfering signals above shall be measured at a height of 10 metres above ground level.

LOT 017JAG

Vision and sound frequencies shall be maintained within ± 500 Hz of the nominal carrier frequency. However tighter tolerances may be necessary where precision carrier offset is required by the manager.

The effective radiated power of any emission on 156.8 MHz ± 8 kHz shall be attenuated to -77 dBW (e.i.r.p.).

The maximum interfering signal shall be 49 dB μ V/m measured with a horizontally polarised antenna or 54 dB μ V/m measured with a vertically polarized antenna.

J R A Stevenson
General Manager
Communications Division
Ministry of Commerce

Dated at Wellington, 15 May 1990.

