



Communications  
Canada

**TRC-10**

## **TELECOMMUNICATION REGULATORY CIRCULAR**

INFORMATION RELATING TO LAND MOBILE  
AND FIXED SERVICE SYSTEMS IN THE  
138 - 144 AND 148 - 150.8 MHz BAND

EFFECTIVE DATE: MARCH 6, 1974  
(REPLACES TRC-10  
NOVEMBER 13, 1969)

TELECOMMUNICATION REGULATORY SERVICE

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INFORMATION RELATING TO LAND MOBILE AND  
FIXED SERVICE SYSTEMS IN THE  
138-144 AND 148.0-150.8 MHz BANDS.

1. The demand for frequencies in the band 150.8-174.0 MHz resulted in a survey being made of other VHF bands available to the land mobile service immediately below 150.8 MHz i.e. 138-144 MHz, 148.0-149.9 MHz and 150.05-150.8 MHz. These bands are allocated in Canada as follows:

<u>Band</u>	<u>Canadian Allocation</u>	<u>Remarks</u>
138-144 MHz.	FIXED MOBILE Radiolocation (Permitted)	Primarily low capacity fixed. Mobile operations limited to land mobile. Channelling 30 kHz.
*148.0-149.9 MHz.	FIXED MOBILE	Low capacity fixed and land mobile except 148.640-148.700 and 149.480-149.540. Channelling 30 kHz.
150.05-150.8 MHz.	FIXED MOBILE	Low capacity fixed and land mobile. Channelling 30 kHz.

\* The frequency 148.25 MHz  $\pm$  15 KHz may be used for space telecommand, subject to agreement among the administrations concerned and those having services operating in accordance with the Table, which may be affected.

2. The survey revealed that fixed systems in the bands 138-144 MHz and 148-150.8 MHz are almost exclusively located in the rural areas, and that a number of urban land mobile systems have already been licensed in these bands. Since land mobile services are concentrated in densely populated areas, sharing between land mobile services and fixed services in these bands, in order to relieve pressure on the band 150.8-174.0 MHz in congested areas appears reasonable. For this purpose, the following guidelines have been developed.

3. Land Mobile Systems in the Bands 138-144 MHz and 148-150.8 MHz

(a) All areas

(i) 138-144 kHz.

Frequencies may be made available for land mobile systems on a secondary basis to low capacity fixed systems, i.e. fixed systems employing up to 12 voice circuits and bandwidths not in excess of 120 MHz in each direction.

(ii) 148.0-149.9 MHz.  
150.05-150.8 MHz.

Frequencies may be made available for land mobile systems on an equal status with low capacity fixed systems, as defined above.

(b) Conditions applicable to the Land Mobile Service.

- (i) When technically feasible, assignments for land mobile systems will continue to be made in the 150.8-174 MHz band.
- (ii) When frequency congestion or other technical reasons preclude the use of frequencies in the 150.8-174 MHz band, the applicant is urged to utilize the 450-470 MHz band.
- (iii) When the Department is satisfied that technical reasons preclude the use of 450-470 MHz equipment, assignments for land mobile systems may be made in the 138-144 and 148-150.8 MHz bands. (See attached Guidelines).
- (iv) No provision is made for sub-allocation of blocks of these frequencies to any particular category of service. It is considered that the bands in question should continue to be available for low capacity fixed systems, but also available for land mobile use under the conditions outlined in (i) to (iii) above.
- (v) Duplex channels may be made available for safety and preferred categories of service where a greater measure of interference protection and privacy is desirable, where loading warrants a second frequency and frequencies can be made available.

- (vi) This assignment procedure should not be interpreted as a general extension of VHF land mobile allocations. Rather, the VHF bands immediately below 150.8 MHz may be used for land mobile operations only in areas where frequencies are not available in the 150.8-174 MHz band, and where the use of 450-470 MHz is not practicable.

4. Fixed Services (point-to-point) in the bands 138-144 MHz and 148-150.8 MHz.

(a) All areas

(i) 138-144 MHz.

Frequencies may be made available with primary status for low capacity fixed systems, i.e. fixed systems, employing up to 12 voice circuits and bandwidths not in excess of 120 kHz in each direction.

(ii) 148-149.9 MHz.  
150.05-150.8 MHz.

Frequencies may be made available for fixed systems (as defined above) on an equal status with land mobile systems.

NOTE: Fixed systems employing more than 12 voice circuits and/or bandwidths in excess of 120 kHz may be considered on a special case basis, and will normally be authorized only in non-frequency congested areas. Such systems, where authorized, will have equal status with land mobile systems in the band 138.0-144.0 MHz and secondary status to land mobile systems in the band 148.0-150.8 MHz.

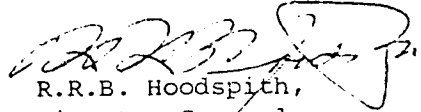
## 5. Technical Requirements

### (a) Land Mobile Services

- (i) Land mobile equipment type approved under Radio Standards Specification 126 (150.8-174 MHz band-30 kHz channelling) will be considered technically acceptable for use in the 138-144 and 148-150.8 MHz bands, and will be so listed in Part B of the Radio Equipment List, upon application from the manufacturer or his representative. Equipment not type approved under RSS 126 will be evaluated in accordance with that Specification and, if technically acceptable, also listed in Part B of the Radio Equipment List, upon application from the manufacturer or his representative. Portable equipment may be technically acceptable under Radio Standards Procedure 103 until February 1, 1970 when it shall be type approved under Radio Standards Specification 120.
- (ii) The power limitations applicable to land mobile systems in the 150.8-174.0 MHz band (base transmitter 60 watts-ERP 125 watts and mobile transmitter 30 watts-ERP 30 watts) shall be applied to land mobile systems in the above bands.

### (b) Fixed Services

The proposed system shall be judged for technical acceptability on the basis of data required under Radio Standards Procedure 101.

  
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