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DGTP-SAB-01
October 1998

Spectrum Management and Telecommunications Policy

Spectrum Advisory Bulletin

Notification for Use of the Band 2483.5-2500 MHz for Mobile-Satellite Service on an Exclusive Basis

Background

In December 1983, the Department released a technical guideline that permitted the frequency band 2450-2500 MHz to be used by TV Pickups and Temporary TV Links. These systems operate on one of three 17 MHz RF channels with centre frequencies at 2458.5 MHz (Ch.1), 2475.5 MHz (Ch.2), and 2491.5 MHz (Ch.3).

Then in November 1988, the Department released the Spectrum Utilization Policy (SP) *Spectrum Allocation and Utilization Policy for the Band 2290-2500 MHz* stating that fixed systems would have to accept interference from and not cause interference to radiodetermination-satellite operations in the band 2483.5-2500 MHz.

At the 1992 World Radiocommunication Conference, Canada supported the international allocation of the band 2483.5-2500 MHz to mobile-satellite service (MSS). In the 1994 revision to the *Canadian Table of Frequency Allocations*, the MSS was domestically allocated to the band 2483.5-2500 MHz on a primary basis for the space-to-Earth direction. In addition, Canadian footnote C38 was added to forewarn that fixed service may be reduced to secondary status (not cause interference or claim protection) upon the implementation of the MSS in Canada.

In January 1995, following a public consultation, Industry Canada released the policy document *Revisions to Microwave Spectrum Utilization Policies in the Range of 1-20 GHz (SP 1-20 GHz)*. This policy document, recognizing the imminent implementation of MSS, removed all other designated use of the band 2483.5-2500 MHz, including TV Pickups, in order to facilitate licensing of MSS systems. TV Pickups and Temporary TV Links have generally been authorized on a non-standard basis and hence been subject to displacement by standard services.

The Globalstar mobile-satellite system (a constellation of 48 low-earth-orbit satellites and an initial global array of some 38 ground stations) is scheduled to be operational in mid-1999. This system will utilize the MSS allocations at 1610-1618.35 MHz (user-to-satellite) and 2483.5-2500 MHz (satellite-to-user). Globalstar Canada, which is majority owned and controlled by CANCOM (Canadian Satellite Communications Inc.), has been authorized by Industry Canada to provide Globalstar's mobile-satellite services in Canada.

Notification

This is an official notification that effective April 1, 1999, all fixed microwave radio systems, including TV Pickups, must cease operations in the frequency band 2483.5-2500 MHz. In the revised microwave spectrum policies of January 1995, Industry Canada removed the TV Pickup designation in this band in order to facilitate operation of mobile satellite systems. The Department indicated at the time that TV Pickups may operate on a temporary basis provided that it does not cause unacceptable interference to the primary mobile-satellite allocation. The mobile-satellite service is expected to begin operating in Canada in mid-1999.

Treatment of Fixed Service

Due to the inability of the fixed and mobile-satellite services to share the same spectrum in the same area, the use of the TV Pickup channel 2491.5 MHz (Ch.3) will potentially cause interference to the MSS subscriber terminals. As a result, all existing fixed stations, including TV Pickups, are required to cease operation in the band 2483.5-2500 MHz, effective April 1, 1999. In the event that the implementation of Globalstar operation in Canada is delayed, the use of Ch. 3 for fixed service may possibly continue on a temporary and non-interference basis provided that it is permitted by the appropriate Regional or District Office of Industry Canada.

Regarding the use of new spectrum in the short term, the affected fixed service users may:

- (1) continue use of Ch.1 and Ch.2, which fall below 2483.5 GHz; or
- (2) move to other spectrum already designated to TV Pickups in SP 1-20 GHz (frequency bands at 6.9 GHz, 13 GHz and 15 GHz).

The Department is considering new TV Pickup spectrum as outlined in *Proposals to Provide New Opportunities for the Use of the Radio Spectrum in the 1-20 GHz Frequency Range (DGTP-006-97)* released in August 1997. Proposals for new TV Pickup spectrum are currently under review.

If you have any questions regarding this notification or require assistance in these matters, please contact the appropriate Regional or District Office of Industry Canada.

October 13, 1998

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Note: Spectrum Advisory Bulletins will be published on the Industry Canada Spectrum Management and Telecommunications website (<http://strategis.ic.gc.ca/spectrum>) to inform spectrum licensees of emerging situations and decisions that have been fully consulted on, and to provide advice on suitable courses of action.