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Spectrum Management and Telecommunications

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# **Policy Provisions to Support Licence-exempt Personal Communications Services (LE-PCS) in the Band 1920-1930 MHz and a Moratorium Imposed on the Band 1910-1920 MHz**

## Background

In 1994, Industry Canada designated the band 1850-1990 MHz for mobile services such as PCS, and made provision for the centre portion of the band (1910-1930 MHz) to be available for licence-exempt PCS (LE-PCS) applications. The band was divided between data devices in 1910-1920 MHz and voice applications in 1920-1930 MHz. The policy provisions made a further distinction between nomadic and non-nomadic devices for both applications.

Although a moratorium was placed on the licensing of new fixed microwave systems in the band, the treatment of existing systems required the establishment of transition provisions. In 1997 the Department issued the Spectrum Utilization Policy *Licence Exempt Personal Communications Services in the Frequency Band 1910-1930 MHz* (SP-1910), to support the development and sale of LE-PCS products. At the initiative of Industry Canada, the Electro-federation of Canada (EFC) undertook the task of coordinating the manufacturing industry's activities in bringing these products to the marketplace. The activities were to include the identification of fixed microwave systems or particular links that would need to be displaced for the introduction of non-nomadic LE-PCS. For justified locations the Department undertook to issue formal notification to microwave licensees, for microwave links that could be affected, on a 'where necessary' basis as the licence-exempt products rolled out. The notification would inform the fixed microwave systems to cease the operation of the identified frequency assignment by a future date, or elect to accept potential interference with no protection status.

It was recognized that to accommodate nomadic LE-PCS devices, all remaining fixed microwave systems would need to be notified at the same time, since the location of the nomadic devices would not be controlled. Where notification for displacement would be issued to accommodate nomadic devices, provisions were included for fixed microwave systems to continue to operate on a no-interference no-protection basis. In remote and rural areas, the potential of interference from LE-PCS is small.

The minimum notification periods for transition to spectrum for LE-PCS were revised in the Appendix 3 of the policy document for the auction of remaining PCS spectrum at 2 GHz in June 2000.<sup>1</sup>

To summarize, the transition policy in effect for the band 1910-1930 MHz is:

- Non-nomadic products - as of Jan. 1, 2001, microwave operators are afforded a 2 year notification period, except for inside urban areas with a population of 25,000 or more, where a shorter period of 1 year is afforded after January 1, 2002;
- Nomadic products - as of Jan. 1, 2002, microwave operators are afforded a notification period of 2 years for Canada wide displacements.

## The Band 1910-1920 MHz

Industry Canada notes that the development and distribution of LE-PCS devices to consumers and business users has been relatively slow. To the Department's knowledge, there have been no

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<sup>1</sup> See [Policy and Licensing Procedures for the Auction of Additional PCS Spectrum in the 2 GHz Frequency Range](http://strategis.ic.gc.ca/epic/internet/insmt-gst.nsf/en/sf02136e.html) at: <http://strategis.ic.gc.ca/epic/internet/insmt-gst.nsf/en/sf02136e.html>.

asynchronous data products introduced into the marketplace for wide sale and distribution in the LE-PCS band 1910-1920 MHz.

In the consultation process on the spectrum for Advanced Wireless Services (AWS) begun in October 2003 (DGTP-007-03), the Department proposed to pair the band 1910-1920 MHz with 1990-2000 MHz to expand the existing PCS spectrum and to harmonize the bands with the United States. The Department sought comment on the interest and need to designate this spectrum to the licensed PCS bands. As with most consumer products, it is important that Canada harmonize the use of its spectrum with the U.S. to succeed in the market. The proposed changes sought the best and highest use of the spectrum by making provisions for the potential designation of the band 1910-1920 MHz to the services that will most benefit Canadians.

The Department is of the view that events in the U.S. with respect to the re-designation and licensing of the bands 1910-1920 MHz and 1990-2000 MHz are sufficiently advanced to merit that a moratorium be placed immediately on the availability of the band for licence-exempt devices.

**The Department is herein placing a moratorium on the certification of any new LE-PCS devices for use in the band 1910-1920 MHz. Designation for the use of this band will be developed in a future spectrum utilization policy.**

### **The Band 1920-1930 MHz**

In March 2005, the Federal Communications Commission (FCC) issued a Public Notice (DA 05-612) reminding PCS entities and Fixed Microwave Services licensees of the April 4, 2005 sunset of the relocation compensation and microwave cost-sharing rules, which also include unlicensed PCS. After the sunset date, the microwave licensees will be given a six month protection period for relocation. It is expected that nomadic unlicensed devices will be introduced in the U.S. in the band 1920-1930 MHz before the end of 2005.

Industry Canada has been requested to revise the technical rules within RSS-213 to improve the flexibility of use of the band 1920-1930 MHz by LE-PCS devices. It has been proposed to allow either asynchronous or isochronous devices in an unchannellized format with occupied bandwidths of between 50 kHz and 2.5 MHz. Interest for the applications in this band is expected to grow rapidly.

A recent examination of the Department's database indicates that there are relatively few fixed microwave frequency assignments (under 35) remaining in the band. The majority are in rural and remote locations and it is expected that the potential for these systems to receive interference from nomadic licence-exempt devices would be small. Further, there has been a significant period for microwave system modernization since the original transition policies were developed in 1997.

**In light of these circumstances, the Department is announcing the following changes to the policy provisions for the band 1920-1930 MHz, which are effective on the release of this bulletin:**

- (i) any LE-PCS devices (nomadic or non-nomadic) certified in accordance with RSS-213 can be distributed, sold and operated anywhere in Canada;**

- (ii) the designation restricting LE-PCS to isochronous applications in the band is removed, both asynchronous and isochronous applications are permitted;**
- (iii) the requirement for manufacturers to request that fixed microwave systems be notified to accommodate LE-PCS devices is removed;**
- (iv) the requirement for non-nomadic LE-PCS devices to incorporate a location verification process (LVP) is removed;**
- (v) in accordance with the original policy provisions, existing fixed service systems may elect to continue operating on a no-protection basis with respect to LE-PCS devices;**
- (vi) LE-PCS devices will be expected to accept the levels of interference which may be received while operating in the vicinity of existing fixed service transmitters which have not been notified or have not surpassed the notification date.**

**The Department will inform all existing operators of fixed microwave systems in the band 1920-1930 MHz of the new environment.**

**Note: The transition provisions for fixed microwave systems relating to licensed PCS use remain unchanged by this bulletin.**

#### **End Note**

The Department wishes to thank the EFC for their support in the transition planning of the spectrum, including the displacement timing of microwave links to provide spectrum for the sales and distribution of LE-PCS devices.

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