



File: 3400

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**Radio Advisory Board of Canada
Response to Canada Gazette Notice DGRB-006-01 Consultation on the
Auction of Spectrum Licences for Wireless Communication Services in the
2300 MHz Band and Fixed Wireless Access in the 3500 MHz Band —
Proposed Policy, Licensing Procedures and Technical Considerations -
Dated: 2001-08-10**

Dear Messers. Helm, McCaughern and Skora;

The Radio Advisory Board of Canada is pleased to respond to *Canada Gazette* notice DGRB-006-01.

General

The RABC notes that the Minister has decided that an auction is the appropriate licensing process for these bands; the Board also notes that in the event bids are not made for a specific licence (i.e. a specific spectrum block in a specific service area) then that licence will be awarded on a first-come, first-served basis.

The Board's comments follow; they are keyed to the points in the *Canada Gazette* notice.

Specific Comments (*keyed to the numbering in the Industry Canada document*)

3. Spectrum Policy for WCS Band - 2300 MHz (2305 - 2320 MHz and 2345 - 2360 MHz)

3.1 Background

The RABC agrees with the Department's proposal to offer full flexibility in deciding on the nature of services to be offered.

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3.2 Proposed Band Plan for the WCS Spectrum at 2300 MHz

The Board supports the Department's proposed band plan.

3.3 Incumbents in the 2300 MHz Band

The Board notes that the Radio Amateurs have a secondary allocation in the band 2300 to 2450 MHz.

3.3.2 Fixed Systems in Bands 2305-2320 MHz and 2345-2360 MHz

The Board notes that the text in 3.3.2, in bold, is correct, but the figure in Appendix A needs to be amended to conform to that correct text.

4. Spectrum Policy for the FWA Band - 3500 MHz (3400 MHz - 3700 MHz)

4.2 Proposal to Open FWA Spectrum at 3500 MHz

In Section 4.2 of the *Canada Gazette* notice, the Department has identified several factors which will affect decisions on the amount of spectrum at 3500 MHz which can be made available at this time. Particularly significant are the uncertainties that derive from the outstanding U.S. spectrum policy decision on the use of the 3650-3700 MHz band, and the outstanding U.S. and Canadian spectrum policy decisions on the allocation of a new band for 3G mobile services. The RABC notes the very recent FCC announcement regarding use of the 2500 MHz band (FCC 01-256, released 2001-09-24) and, given the principle of harmonization in North America (which the Board strongly supports), the Board recommends that the Department give careful consideration to this development.

The RABC is of the view that the Department should refrain from making a final decision on the amount of spectrum to make available for FWA at 3500 MHz until these two uncertainties have been resolved. An efficient auction is contingent upon participants having a complete picture of the spectrum band in question, which will not be the case as long as the referenced policy decisions are outstanding.

Beyond this one point of agreement, there is no consensus among RABC members on the amount of FWA spectrum at 3500 MHz that should be licensed once the above mentioned uncertainties have been resolved.

Some members have expressed the concern that any allocation of new FWA spectrum at this time would undermine the economic viability of the broadband fixed wireless industry. They point to the challenges that face existing early stage licensees in attracting adequate financing in the current financial market context, and to the surplus of available spectrum resulting from a series of recent insolvencies.

Other members support the principle of increasing spectrum supply wherever feasible. Those members point out that there is no available spectrum in the designated frequency bands. Some also suggest that new market entrants would help to stimulate competition in the fixed broadband wireless market.

4.3 Structure of FWA Spectrum at 3500 MHz

The Board notes that the Department's proposal to auction 25+25 MHz blocks is driven by current technology and an intention to promote the use of point-to-multipoint systems in the band; the Board agrees that the structure is appropriate, but winners must be free to use their spectrum in the manner which best meets their needs during the term of the licence. The RABC notes, for example, that currently, pre-auction, point-to-point licenses will not be awarded but if an auction winner wants to use a license for point-to-point in the post-auction era that winner is free to do so providing the system meets the established technical conditions.

4.4 Interim FWA Licensing under SP 3400-3700 MHz

The Board is concerned about the application of the moratorium on FCFS licensing. Since the timing would create uncertainty for pending licence applications for FWA systems, the Board requests the Department to exclude such pending licence applications from the moratorium.

4.5 Incumbent Licensees in the FWA Band

The Board notes that the Radio Amateurs have a secondary allocation in the band 3300 to 3500 MHz.

4.5.4 Radiolocation Systems

Board members are concerned about potential radar interference.

5. Treatment of Incumbent Licensees

5.2 Transition Policy Provisions

The Board considers that the transition provisions (2nd bullet) should apply to all current licensees in the bands under consideration; one significant effect of this would be to regularize the status of some existing systems. This could be accomplished by changing the text to read: 'Following the issuance of a spectrum licence, a minimum notification period of two years will be afforded to fixed station incumbents operating in rural areas with standard or non-standard licenses and one year for those operating in urban areas ...'

Some members recommend that the Super 2 GHz radio systems displaced pursuant to this policy be able to be re-deployed and be re-licensed as non-standard (i.e. subject to a 6 month displacement notification period) in rural areas. These same members believe that such relocation would be beneficial even if these systems were restricted to the lower two frequency pairs (2293-2393 MHz, 2299-2399 MHz) noting that these pairs are not part of the WCS band.

7. Technical Considerations

7.1 The WCS Band at 2300 MHz

The Board will work with the Department to develop the necessary technical parameters.

7.1.1 Spectrum Blocks

The Board supports the proposed spectrum blocks.

Appropriate technical rules for disaggregation need to be developed, by the Department and the Board, in a SRSP and RSS.

7.1.2 Co-existence Co-ordination

The Board notes that a default coordination procedure, probably similar to others developed by the RABC, will be required for this band. The Board also notes that there may be a need to consider trigger levels or hard limits for the service area boundaries.

Board members are also concerned about interference to services in adjacent bands and some members are also concerned about out of band emissions. The proposed limits would, effectively, eliminate the Radio Amateurs' weak signal operations which are concentrated at 2304.1 MHz.

7.1.4 Sharing Issues with Other Services

The Board notes that any requirements to protect DARS in the USA must be dealt with when the Board assists the Department in developing the applicable RSS and SRSP.

7.2 The FWA Band at 3500 MHz

7.2.2 Adjacent Channel / Same Area Coordination

During the preparation of the standards for these bands it may be necessary to specify how adjacent channel operations will be managed

7.2.4 Radiolocation Systems

The Board recommends that the Department release results of the studies referred to in this section with the licensing policies and procedures. The Board notes that, to date, only one study has been provided: ITU-R Document 8A-9B/52-E dated 2001-03-07.

7.3 FWA Equipment Characteristics and Availability

The Board notes that [a] some vendor[s] favour[s] this allocation but inputs have been very limited.

8. Licensing Process

8.3 Service Areas

The Board supports the use of the Tier 4 service area definition.

8.4 Implementation of Services

The Board notes that other licences awarded in previous auctions have implementation of service requirements attached to them. In the *Policy and Licensing Procedures for the Auction of the 24 and 38 GHz Frequency Bands*, while the Department was reluctant to identify any specific technical measures for roll-out, it provided the example of eight links per one million population (rounded up to a whole number), within a service area, within three years. Experience to date in the fixed wireless sector suggests that many carriers are facing difficulties in rolling out services in advance of “must use” triggers contained within the licences. Moreover, licensees who obtained their licences in processes other than auctions are similarly facing roll-out difficulties.

Some members of the Board are of the view that implementation of service requirements is inherently tied to economic, market and other conditions. While an implementation requirement of three years might have made sense two years ago, a rapid deterioration in capital markets could make the same requirement appear unachievable given today’s economic climate.

In fact, under Section 6.6 of *Framework for Spectrum Auctions in Canada*, the Department concluded that, within an auction framework, roll-out conditions are likely not required to address competition issues. In the current consultation, the Department has not identified any other specific policy objectives that require the imposition of roll-out conditions

These Board members, therefore, not only recommend that the Department dispense with requirement to serve conditions in this process, but also that said requirements be re-thought more generally, including their applicability in the case of existing licences.

Other members of the Board are satisfied with the provisions that have been outlined in Section 8.4 of the Notice, including the example provided there. These members believe that it would not be in the public interest to relieve licensees of such obligations, noting that Section 7 of the *Telecommunications Act* contains policy objectives that aim to extend telecommunications systems and services throughout Canada. For example, these objectives include the goal of facilitating “the orderly development throughout Canada of a telecommunications system that serves to safeguard, enrich and strengthen the social and economic fabric of Canada and its regions”. These members further note that Section 5.1 of the *Radiocommunication Act* provides that, in issuing spectrum licences, the Minister may take into account “all matters that the Minister considers relevant for ensuring the orderly establishment or modification of radio stations and the orderly development and efficient operation of radiocommunication in Canada”. These “matters” taken into account by the Minister could reasonably be expected to include implementation of service requirements.

8.6 Post-Auction Licensing Process

The Board supports this proposal for post auction treatment of spectrum; noting that in the event that bids are not made for a specific licence (i.e. a specific spectrum block in a specific service area) then that licence will be awarded on a first-come, first-served basis.

8.7 Issuance of Licences

The Department has noted that provisional winners of spectrum licences will have licences issued to them upon completion of (1) payment of the sum of the winners' standing high bids and the sum of any penalties; and (2) a determination by the Department that the Canadian ownership and control requirements have been met.

Experience to date indicates that determination relating to ownership and control takes longer than is necessary or desirable. The Board recommends that the Department move quickly in making this determination.

The Board notes that in the case of the two previous auctions, the length of time for the ownership and control determination to be completed easily exceeds seven months for most carriers and, in some cases, has stretched into years. This is unacceptable to the industry and such lags run counter to sound spectrum management.

The current lengthy qualification process is unacceptable to the industry primarily, but not exclusively, because of the significant interest charges incurred by the auction winners on the monies borrowed in order to purchase the licences. This interest must be paid while, at the same time, use of the spectrum is prohibited. Payments are made and access to spectrum is denied until the qualification process concludes and the licences are issued. The lengthy process also runs counter to sound spectrum management practices because it slows the speed at which the spectrum is made available and put to use - something with which the industry is also concerned.

In both previous auction policies, the Department indicated that this process would be completed in a timely fashion. In the auction of additional PCS spectrum, the Department stated that these determinations would be completed "on an expeditious basis". Unfortunately, reality has failed to live up to these expectations.

In light of this actual experience, and given the expectation that delays will continue, the Board recommends that the Department take steps to minimize, if not eliminate, delay in this process.

The Board submits the following alternatives for the Department's consideration and action. The ownership and control determination could take place in advance of the auction. This might provide the Department with a financial incentive to complete the determination as expeditiously as possible, since the auction cannot commence, and proceeds cannot be collected until all potential bidders are qualified. Alternatively, the Department could devote more resources, including full-time counsel, to a post auction determination such that the process can be conducted in a more expeditious fashion than has been the case with respect to the recent PCS auction. This would have the advantage of not delaying the start of the auction.

Furthermore, the Board recommends that current licensees (who are by definition Canadian) should be considered as being in compliance with the ownership and control requirements. As such, they would automatically be issued their licenses unless concerns are raised. The Board notes that existing licensees are already under obligation to advise the Department of any material change to their ownership and control. At the very least, the Board would expect that provisional winners, that have recently been found to be in compliance with the requirements, should be processed without delay, as should those with simple corporate structures. The licensing of these carriers should not be impacted by delays associated with other provisional winners.

With respect to the loss of interest on monies paid for licences that are not issued until after the determination is made, the Board recommends that the Department seriously consider implementing provisions which would, for example, permit provisional winners to withhold some portion of the fees payable.

10. Consultation Process

10.3 Final Policy Paper

The Board reiterates its view that results of studies on sharing between radiolocation and FWA should be published with (or before) the Final Policy Paper.

11. Submitting Your Comments

11.1 Instructions for Filing

The Radio Advisory Board of Canada once again commends the Department for its commitment to and leadership in the use of modern telecommunications and information technology to do the nation's business.

Industry Canada has set a good example for other government departments and agencies in terms of electronic information handling.

11.2 Public Access

The Board continues to support the Department's efforts to make sure that all comments and useful information are readily available to all Canadians. Board members remain committed to the principle that the radio frequency spectrum is an important national resource and that all Canadians should be interested in and well informed about its regulation and use – including the views of technically expert groups like the Radio Advisory Board of Canada.

Conclusion

Subject to the specific comments above, the Board is generally supportive of the principles and the process set out in *Canada Gazette* notice DGRB-006-01 and the Board thanks the Department for the opportunity to respond.

Yours truly

A handwritten signature in black ink, appearing to read 'R.D.C. Coles', with a long horizontal flourish extending to the right.

R.D.C. Coles
President

Cc: Michael Helm,
Director General, Telecommunications Policy Branch

Dr. Robert W. McCaughern
Director General, Spectrum Engineering Branch