



Mr. Peter Hill
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 Radiocommunications and Broadcasting Regulatory Branch
 Industry Canada
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Subject: *Canada Gazette*, Part I, March 14, 2009, Consultation on Transition to Broadband Radio Service (BRS) in the Band 2500-2690 MHz, Notice DGRB-005-09

Further to the process set out in the above referenced document, please find below the WiMAX Forum comments regarding the consultation.

The WiMAX Forum^{® 1} is the world's leading organization promoting global standardization for, and adoption of, metro-scale wireless broadband networks using the IEEE 802.16 and ETSI HiperMAN wireless MAN specifications. The WiMAX Forum's goal is to accelerate the introduction of these devices into the marketplace. WiMAX Forum Certified™ products are interoperable and support metropolitan broadband fixed, nomadic and mobile applications. Collaboratively, the WiMAX Forum is pursuing programs to assure certification and interoperability of Mobile WiMAX™ products, global roaming, interworking to complement existing voice networks, development of applications and services optimized for WiMAX networks, and the promotion of WiMAX products, services and networks worldwide.

The WiMAX Forum has agreed equipment certification profiles for TDD equipment based on the IEEE 802.16e-2005 standard for the entire 2500-2690 MHz frequency range (see Table 1). Equipment aligned with this profile is included in the IMT air interface family as OFDMA-TDD-WMAN identified in Recommendation ITU-R M.1457-7.

SYSTEM PROFILE	Spectrum	Duplexing	Channel Width
Mobile WiMAX (IEEE 802.16e-2005, OFDMA)	2.496 - 2.690 GHz	TDD	5, 10 MHz (dual)

Table 1

WiMAX Forum Certification for the 2.6 GHz Mobile WiMAX products began in 2008 and currently over **30** certifications have been issued for the 2.6 GHz band. We note that many of

¹ "WiMAX," "Mobile WiMAX," "WiMAX Forum" and "WiMAX Forum CERTIFIED" are trademarks of the WiMAX Forum. For more information about the WiMAX Forum and its activities, please visit www.WiMAXForum.org. The WiMAX Forum is an organization of more than 520 operators, communications component and equipment companies. The WiMAX Forum's charter is to promote and certify the compatibility and interoperability of broadband wireless access equipment that conforms to the Institute for Electrical and Electronics Engineers (IEEE) 802.16 and ETSI HiperMAN standards. The WiMAX Forum was established to help remove barriers to wide-scale adoption of Broadband Wireless Access (BWA) technology, since a standard alone is not enough to incite mass adoption of a technology.



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these certifications are for modules which are embedded in laptops and other devices, therefore the marketplace will find many more than 30 products available today.

Below we offer responses to the specific questions raised by the Department in the Consultation Paper. Additionally we provide our views on other areas of the Consultation Paper where input was deemed appropriate. The numbering corresponds to the sections in the Consultation Paper.

Respectfully Submitted
WiMAX Forum

/s/ Tim Hewitt

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3 Consultation on a Firm Transition Date

The Department is seeking comments on its proposal to adopt a firm transition date to BRS rather than renew MCS and MDS licenses.

Should a firm transition to BRS be adopted, the Department is proposing March 31, 2011, as the transition date to BRS, as it coincides with the end of license term for the current MCS licenses.

The WiMAX forum supports a fixed transition date to be determined for the current licensees to transition to a BRS license. This will help remove ambiguity of when the transition will occur for both the current licensees on the transition of the frequency band as well as for potential new BRS licensees wishing to offer service in the band.

With the current licenses set to expire in 2011, this is the most appropriate time to make the transition from MDS / MCS to BRS licensing. Further to avoid confusion we recommend that no renewal applications for MDS / MCS should be accepted from incumbent licensees and instead only BRS licenses should be issued.

The WiMAX forum supports the March 31st 2011 transition date for issuing BRS licenses.



4 Consultation on Criteria to be Used when Issuing BRS Licenses

4.2 Qualification Requirements and treatment of Incumbents

4.2.1 MCS Licenses in Manitoba

The Department seeks comments on the options that should be applied to the Manitoba school boards and the commercial MCS licensee:

- Option 1 – Eligible for conversion to BRS;
- Option 2 – Subject to a transition
- Option 3 – Grandfathered

The WiMAX Forum recommends that commercial MCS licensees in Manitoba become eligible for new BRS licenses once the band plan is finalized.

4.2.3 CRTC-Licensed MDS Broadcasting Stations

Industry Canada invites comments on which component(s) (i.e. CRTC Decision, Industry Canada broadcasting certificate, and CRTC license) should be required for licensed MDS in order to qualify for conversion to BRS in a given area.

Should MDS stations that do not meet the eligibility criteria be protected through a transition policy (notification period prior to displacement) in the event that a firm transition date to BRS is adopted?

Since new digital air interface technologies, such as IEEE 802.16e-2005 (“Mobile WiMAX™”), support video transmissions, the WiMAX Forum recommends that a new RSS be developed for BRS and that BPR-6 be retired.

4.2.4 CRTC License-Exempt Broadcasting Stations in Rural Areas

Comments are also sought on whether CRTC license-exempt systems that serve small, rural and remote communities having small populations should be treated differently from the CRTC-licensed systems.

Should these undertakings not be eligible for conversion and a firm transition date to BRS is adopted, the Department seeks comments on what would constitute a suitable notification period for these stations to retune to available frequencies or cease operating. Notification would be given only if the MDS station would prevent the deployment of a BRS system.

Due to the special nature of these license-exempt systems, the WiMAX Forum suggests to treat them as indicated below. In cases where the incumbent license-exempt service would not impact



the BRS rollout, no action is required. In cases where the service would impact the rollout of the BRS service, then the license-exempt service would need to be retuned to another frequency band to avoid interference. In any case, these licence exempt systems should be allowed on a “no-protection no-interference” basis.

The WiMAX Forum recommends that the notification period for the licence exempt systems be at least six (6) months due to their relative small size and the users they serve.

4.3 Geographic Service Areas

4.3.2 MDS Authorizations

Industry Canada seeks comments on whether Tier 3 or Tier 4 license areas are the most appropriate for the conversion of site-specific MCS licenses to BRS spectrum licenses, where applicable, and for conversion of MDS authorizations, including Industry Canada spectrum licenses issued in the 2596-2690 MHz band.

As tier 3 areas are larger than Tier 4 areas, it would facilitate the planning and implementation of large scale high-mobility systems. They are also consistent with the smallest licence area issued for mobile operations in the AWS auction. Therefore, the WiMAX Forum recommends that Tier 3 licenses be issued for the entire 2500-2690 MHz band.

8 Stakeholder Proposal Development on a Band Plan for BRS

The WiMAX Forum welcomes this process and will review and provide our input into that process once under way. For now, we would like to note that one of the fundamental building blocks is the amount of spectrum issued to each operator and would like to provide the following guidance.

The WiMAX Forum recommends to Industry Canada to allow at least 30 MHz per operator, in order to deploy a viable system.
