



Works & Emergency Services
Barry Gutteridge, Commissioner

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Director General, Telecommunications Policy Branch
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**Subject: *Canada Gazette* Notice DGTP-001-02 dated 2002-01-19: Consultation on
Revisions to the Spectrum Utilization Policies in the 3-30 GHz Frequency
Range**

Dear Mr. Helm;

I am writing to you on behalf of the City of Toronto Fire Services in response to the Consultation on Revisions to the Spectrum Utilization Policies in the 3-30 GHz Frequency Range (Canada Gazette Notice DGTP-001-02). Our particular interest, and our comment provided below, is with section 3.2.3 "Additional Proposal 4400 – 4990 MHz".

You are aware of the FCC announcement of 2002-02-14 of the adoption of a Second Report and Order and further Notice of Proposed Rulemaking allocating 50 megahertz of spectrum in the band 4940-4990 MHz for fixed and mobile wireless services and designating the band for use in support of public safety. The FCC stated that it was designating this spectrum in order to "...provide public safety users with additional spectrum to support new broadband applications such as high-speed digital technologies and wireless local area networks for incident scene management."

Toronto Fire Services recommends that the band 4940-4990 MHz in Canada be harmonized with the US for public safety use. This would allow Canadian public safety agencies, such as ours, to have access to new wireless tools that will become available elsewhere and to take advantage of the benefits of harmonization. These benefits include reduced costs, wider availability of equipment and the potential for interoperability.

For fire services, solutions such as personal and vehicular area networks can wirelessly integrate a variety of existing and future devices to provide a safer environment for our firefighters. These include image and video cameras and viewers, mobile data terminals and all their peripheral devices, palmtops, and wireless long-range headsets, microphones, earpieces and voice recognition to allow complete hand free operation. Very large data and image files can be rapidly and wirelessly

transferred within Wireless Local Area networks (WLAN), enabling images of maps and layouts to be downloaded into fire vehicle mobile computers as they leave the station. This same technology will also allow wireless uploads of videos, images and reports from the fire scene to a command center or communications. WLAN technology will also enable command centers to employ full motion video for remote controlled robotics in highly dangerous operations, and monitoring of officers in high risk situations to allow on scene decision making and assistance based on video transmissions. This technology would also allow real time transmission of video and imagery from helicopters to command centers.

Very large data and image files can rapidly and wirelessly be transferred such as school maps and diagrams, office building floor plans, apartment complex layouts and floor plans, diagrams of numerous facilities and transmission of images to and from tactical operation centers.

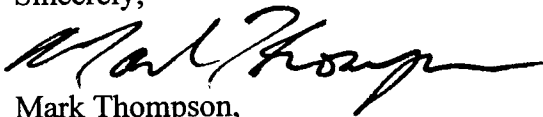
Solutions such as personal area networks (PAN) can wirelessly integrate a variety of lifesaving tools into the firefighter's suit and helmet. These include biometric and environmental sensors, 3D location, video and thermal imaging cameras, wireless microphones and earpieces, and voice recognition to allow complete hands-free and wire-free operation of all communications. High-speed wireless data links transmit this vital information to tactical operation centers, allowing them to constantly monitor the location and vital signs of firefighters and help them navigate through buildings

Although unlicensed consumer oriented broadband technologies are on the horizon in the nearby 5 GHz band, public safety agencies cannot rely on unlicensed spectrum for our mission critical applications. We must have dedicated spectrum and systems that assure the safety of our personnel via immediate priority access, uninterrupted transmissions, and guaranteed coverage and reliability.

The proximity of this unlicensed band to the proposed public safety 4.9 GHz allocation allows us to leverage such standards based broadband technologies and yet have the dedicated, reliable, secure and enhanced featured broadband solutions that we require for our mission critical applications.

The City of Toronto Fire Service urges you and the Commission to recognize our broadband spectrum needs and allocate this much-needed 4.9 GHz band to the public safety community. Obtaining this spectrum is a critical step for public safety agencies and the tactical community to access these new advanced broadband solutions for our mission critical applications.

Sincerely,



Mark Thompson,
Manager,
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Cc: Rick Simpson,
Deputy Fire Chief