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Meteorological Service of Canada
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Septembre 2nd 2005

Director of Spectrum and Radio Services
Telecommunications Policy Branch
Industry Canada
Room 1611A, 300 Slater Street
Ottawa, Ontario
K1A 0C8

Re: *Canada Gazette* Notice DGTP-001-05 dated 2005-05-14: Consultation on a Renewed Spectrum Policy Framework for Canada and Continued Advancements in Spectrum Management

The Meteorological Service of Canada (MSC) of Environment Canada commends Industry Canada (the Department) for proposing to renew the Spectrum Policy Framework for Canada. The MSC offers comments that are general in nature. No responses are provided to the specific questions posed in the consultation paper.

While the MSC recognizes the need to renew the Canadian Spectrum Policy Framework, the Service is especially concerned that the drivers for such renewal appear to be the observed trend by US and UK Administrations to deregulate access to the spectrum and facilitate deployment in mass of license-exempt consumer devices.

The MSC notes that the Department rightly wishes to “promote economically efficient resource allocation and reliance on market forces and economic incentives to assign the spectrum, where such actions will enhance the economic, social and cultural benefits for Canadians”. When assessing benefits for Canadians and applying “market forces” and “economically efficient resource allocation”, the MSC recommends to the Department to also identify and take into account impacts on affected services.

The Meteorological Service of Canada is concerned that the special requirements of the services that depend on observation of signals emitted by the natural constituents of the earth and its environment are not apparent in the consultation paper.

- For example, under “New Policy Guideline 3 - Radio Systems or Services Displacement”, the Department should recognize that the passive EESS service cannot be displaced as the relevant frequency bands used by EESS are mainly determined by fixed physical properties (e.g. molecular resonance) that cannot be changed or ignored.
- Another example are the meteorological radars that emit signals that observe hydrometeors using fixed frequencies that were optimally selected based on climatology of the size and state of hydrometeors that prevail in the country (5.6 GHz in Canada, 2.8 GHz in USA).

The MSC uses the EESS service to monitor the climate and its trends. For example, water vapour that is best observed globally in the 23.6-24 GHz absorption band, is an important greenhouse gas and a driver in the thermodynamic development of high impact weather events (droughts, floods, hurricanes, tornadoes, heavy, rain/snow, icing). It is critical to preserve the capacity to observe water vapour and other constituents that drive the earth climate as they are critical input to climate change projection models that are used to provide guidance to policy-decision makers regarding regulations to mitigate risks and establish adaptation measures.

The Meteorological Service of Canada notes that the Department often makes reference to public safety in the consultation paper but that its definition is restricted to radio communications, i.e. making sure that emergency and disaster relief organizations have access to proper radio spectrum for the broadcasting of warnings and emergency information to the affected communities. However, Environment Canada, and in particular the Meteorological Service of Canada, also delivers on public safety. The MSC is responsible for conducting observations and forecasts and for the provision of timely warnings with respect to weather, ice sea-state and other physical phenomena. The capacity of the Meteorological Service of Canada to deliver on its public safety mandate critically depends on its capabilities to adequately observe the constituents of the earth and its environment. Even in the response to emergencies, although it is transparent to the general public, it is rare that weather information is not a critical input in the deployment of response resources and the establishment of mitigation measures. For example, the observed and forecast information on wind, humidity, state of vegetation, and thunderstorms with associated lightning activity are all critical inputs to forest fire fighting and the decision-making process regarding the protection of populations. In the case of a terrorist attack involving the release of biological, chemical or nuclear materials, in-situ and remote sensing will be critical to the detection, tracking and forecasting of the dispersion of the plume of released materials in order to provide the emergency response organization with the information needed to properly react to the situation.

The Meteorological Service of Canada hopes that the above comments will guide the Department in the renewal of the Spectrum Policy Framework for Canada. An electronic copy of this letter has also been e-mailed to wireless@ic.gc.ca.

Yours sincerely,

Original signed by Marc Denis Everell

Marc Denis Everell
Assistant Deputy Minister

cc: Mike Minuk, Director General, AMWSD, MSC