



VIA E-MAIL

ic.spectrumauctions-encheresduspectre.ic@canada.ca

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Innovation, Science and Economic Development Canada
c/o Senior Director, Spectrum Licensing and Auction Operations
235 Queen Street, 6th Floor
Ottawa, Ontario K1A 0H5

**Re: Canada Gazette Notice SLPB-002-20
Consultation on the Technical and Policy Framework for the 3650-4200 MHz Band
and Changes to the Frequency Allocation of the 3500-3650 MHz Band**

Inmarsat Solutions (Canada) Inc. ("Inmarsat") appreciates the opportunity to reply to comments received on the *Consultation on the Technical and Policy Framework for the 3650-4200 MHz Band and Changes to the Frequency Allocation of the 3500-3650 MHz Band*, Canada Gazette Notice No. SLPB-002-20 (the "Consultation"). As stated in its comments in this proceeding,¹ Inmarsat operates C-band feeder links and telemetry, tracking, and command ("TT&C") functions in the fixed-satellite service ("FSS") that are critical to support mobile-satellite service ("MSS") operations in Canada and across the Americas.

Inmarsat operates a global satellite communications system of 13 geostationary orbit ("GSO") space stations offering diverse services in the L-, S-, and Ka-bands. Inmarsat's global L-band satellites provide a plethora of services, which support critical requirements such as the electrical grid, utilities, telehealth, e-banking, agriculture, military and security, as well as safety of life. In Canada, this includes supporting the Canadian Government in protecting its borders, its oceans, and its environment, among other things. Key to these communications links is access to C-band spectrum for feeder links and TT&C operations. Specifically, Inmarsat's C-band earth station located in Weir, Quebec, supports Inmarsat's L-band MSS services in Canada and across the Americas via the Inmarsat-4 F3 space station at the 98° West Longitude orbital location.²

As a general point, Inmarsat reiterates its view, joined by other satellite operators,³ that, if ISED changes the allocation in the 3800 MHz band in the future, it should ensure that current and future satellite use is not precluded.

¹ Comments of Inmarsat Solutions (Canada) Inc. in this proceeding, October 26, 2020 (available at [https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapi/SLPB-002-20-Inmarsat-Solutions-Canada-Inc-comments.pdf/\\$file/SLPB-002-20-Inmarsat-Solutions-Canada-Inc-comments.pdf](https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapi/SLPB-002-20-Inmarsat-Solutions-Canada-Inc-comments.pdf/$file/SLPB-002-20-Inmarsat-Solutions-Canada-Inc-comments.pdf)).

² Note that this earth station site also is the redundant backup required for critical services, and particularly safety of life services. The other earth station providing feeder links for Inmarsat-4 F3 is located in Paumalu, Hawaii, in the United States. See FCC Radio Station Authorization, Call Sign E080059.

³ Comments of Intelsat, Inmarsat, and SES, *Consultation on Revisions to the 3500 MHz Band to Accommodate Flexible Use and Preliminary Consultation on Changes to the 3800 MHz Band*, Canada **Gazette Notice SLPB-004-18**, July 12, 2018 (available at [https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapi/SLPB-004-18-Intelsat_Inmarsat_and_SES.PDF/\\$file/SLPB-004-18-Intelsat_Inmarsat_and_SES.PDF](https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapi/SLPB-004-18-Intelsat_Inmarsat_and_SES.PDF/$file/SLPB-004-18-Intelsat_Inmarsat_and_SES.PDF)).

As a further general point, Inmarsat reiterates its belief that Paragraph 39 of the Consultation, in which ISED notes that there are no remaining grandfathered FSS earth stations in the 3650-3700 MHz band in the Spectrum Management System (“SMS”) database, is in error. One of Inmarsat’s C-band earth station in Weir, Quebec, has been licensed since October 27, 2008.⁴

Questions relating to the continued use of the 3500-4200 MHz band, including sub-ranges

In their comments on question 11, Mobilexchange and TekSavvy propose, with little discussion, either not to apply the coordination procedure⁵ or to sunset grandfathered earth stations at an early date.⁶ Rogers proposes that an end-of-life date be specified for grandfathered earth stations.⁷ These commenters effectively seek to displace Inmarsat’s facilities in Weir, Quebec, without consideration of the services enabled by this facility or the redundancy requirements of Inmarsat’s network and the services it provides, including safety of life services and services to departments of the Government of Canada.⁸

As TELUS notes in its comments,⁹ the coordination protocol in SRSP-520 provides necessary protection for the operation of these stations, which provide MSS feeder links to the Inmarsat-4 F3 and Inmarsat-3 F5 space stations. The coordination protocol enables continued support of MSS services, including safety of life services, while enabling flexible use near the Weir site on a number of frequencies within the band. Mobilexchange, TekSavvy, and Rogers simply seek to abrogate ISED’s thoroughly discussed and thoughtfully crafted coordination procedure to facilitate continued FSS operation. Inmarsat endorses ISED’s recommended procedure.

Therefore, the FSS allocation in the 3500-3650 MHz band in the Canadian Table of Frequency Allocations, as well as footnote C20, must be maintained to reflect Inmarsat’s continued and authorized use. Policy considerations relevant to the general priority of flexible use terrestrial services may instead be appropriately expressed in a revision to footnote C20 if necessary.

Questions relating to transition dates and deadlines

Commenters provide varying views on this deadline, almost uniformly focusing on the transition of broadcasting satellite services.

Unlike other operators, Inmarsat uses spectrum in the 3700-4000 MHz band not for broadcasting services, but for TT&C operations on its Inmarsat-3 and Inmarsat-4 family of satellites. In Canada, Inmarsat maintains a steerable antenna in Weir, Quebec,¹⁰ to receive TT&C signals from the Inmarsat-3 F5 and Inmarsat-4 F3 space stations, as well as other space stations in the Inmarsat-3 and Inmarsat-4 families that may be in transit between orbital locations. These operations occur in the 3945-3955 MHz frequency range. The

⁴ License No. 010001493-001, call sign XJ996.

⁵ Comments of Mobilexchange Ltd. at 13.

⁶ Comments of TekSavvy Solutions, Inc. at 10.

⁷ Comments of Rogers Communications Canada Inc. ¶115.

⁸ Government of Canada departments served by Inmarsat through a contract with Shared Services Canada include (by way of example, and without limitation) the Royal Canadian Navy, Environment Canada, the Royal Canadian Mounted Police, and the Canada Border Services Agency.

⁹ Comments of TELUS Communications Inc. ¶61.

¹⁰ License No. 010001491-002, call sign VF840.

transmitters located on the spacecraft already in orbit, and therefore no adjustments can be made to the frequency or signal.

Inmarsat will continue to need to use these frequencies in this location for the rest of the operational life of the Inmarsat-3 and Inmarsat-4 satellites, which is likely to extend to 2030 or beyond.

Inmarsat therefore opposes the application of *any* proposed or incompatible deadline, whether in December 2023, earlier, or later, to the TT&C operations described above, as the frequencies are not agile and must be used for the life of Inmarsat-3 and Inmarsat-4 satellites.

/s/ Brennan Price

Brennan Price

Director, Regulatory Affairs

Inmarsat Solutions (Canada) Inc.

1441 L St NW Ste 610

Washington DC 20005

USA

Tel +1 703 223-3327

brennan.price@inmarsat.com