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30 November 2020

Innovation, Science and Economic Development Canada
c/o Director, Spectrum Regulatory Best Practices
235 Queen Street
6th Floor, East Tower
Ottawa, ON K1A 0H5

Re: Reply Comments to 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, Part I, August 2020, Notice No. SLPB-002-20.

Attached, please find joint reply comments of The Boeing Company, Airbus, Bombardier Aerospace, Air Line Pilots Association, International (ALPA), Canadian Business Aviation Association (CBAA), MHI RJ Aviation Group (MHIRJ), and Air Canada Pilots Association (ACPA) in response to Innovation, Science and Economic Development Canada's *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, Part I, August 2020, Notice No. SLPB-002-20.*

The undersigned aviation industry stakeholders welcome the opportunity to provide reply comments on the critical aviation safety issues raised in this Consultation.

Yours truly,

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In their comments to this Consultation, two mobile interests¹, as well as Telesat², attempt to challenge the findings of the RTCA report³ released on October 7, 2020, entitled “*Assessment of C-Band Mobile Telecommunications Interference Impact on Low Range Radar Altimeter Operations (RTCA Paper No. 200-20/PMC-2042)*” without providing any type of independent technical analysis. Thus, the RTCA Report remains the only comprehensive analysis of radar altimeter and 5G flexible use coexistence that is based on technical parameters provided by both the radar altimeter and commercial mobile industry. As such, it provides the only valid technical and publicly available study for ISED’s further consideration on the protection of radar altimeters from flexible use services proposed under the Consultation.

This Report was the culmination of a six-month multi-stakeholder group effort – the 5G Task Force – that began in April 2020 when the RTCA Special Committee 239 (SC-239) issued an invitation to the public to participate. The Report was informed by technical parameters made available by the commercial wireless and aviation industries regarding their respective systems and was therefore able to more thoroughly examine issues of compatibility between existing radar altimeters and prospective flexible use services than were the preliminary analyses submitted by industry early in 2020. As explained in the recent RTCA Report, the analysis found serious threats of harmful interference to a number of radar altimeter systems from anticipated flexible use deployments, including the impact from spurious emissions into the radar altimeter band.

As stated in the joint comments filed by aviation industry stakeholders⁴ in this Consultation, as well as in comments presented by Transport Canada Civil Aviation⁵, a separation guard band is a necessary but insufficient measure to fully avoid harmful interference between flexible use service in 3650-3980 MHz and aeronautical radionavigation and aeronautical mobile (route) services in 4200-4400 MHz. The recent RTCA Report, which has been peer reviewed for accuracy and validity, demonstrates the insufficiency of the 220 MHz separation between the 4200-4400 MHz radar altimeter band and the 5G band at 3700-3980 MHz, and the permitted power levels intended to protect radar altimeters. Therefore, pending radar altimeter improvements, ISED should take into account the useful technical information provided in the Report for developing and implementing additional short term mitigations to ensure the protection of safety-of-life aviation systems.

¹ See Comments of Ericsson Canada, Inc. at Section 10.4. See also Comments of TELUS Communications, Inc. at 187 and 223.

² See Comments of Telesat at 154.

³ The full text of the report can be found here: https://www.rtca.org/wp-content/uploads/2020/10/SC-239-5G-Interference-Assessment-Report_274-20-PMC-2073_accepted_changes.pdf

⁴ See Comments of The Boeing Company, Air Line Pilots Association, International (ALPA), Canadian Business Aviation Association (CBAA), Bombardier Aerospace, MHI RJ Aviation Group (MHIRJ), Air Canada Pilots Association (ACPA), Collins Aerospace, and the International Air Transport Association (IATA)

⁵ See Letter from Transport Canada Civil Aviation (TCCA) dated October 13, 2020