



February 13, 2022

Re: *Innovation, Science and Economic Development Canada, Radiocommunication Act, Notice No. SLPB-006-21 — Consultation on a Policy and Licensing Framework for Spectrum in the 3800 MHz Band, Canada Gazette, Part I, December 25, 2021, Volume 155, Number 52: Index*

Submitted via email to: spectrumauctions-encheresduspectre@ised-isde.gc.ca

Comments of NACC, IATA, A4A, ATAC:

The National Airlines Council of Canada (NACC), the International Air Transport Association (IATA), Airlines for America (A4A), and the Air Transport Association of Canada (ATAC) appreciate the opportunity to provide input into the Innovation, Science and Economic Development Canada (ISED) Consultation on a Policy and Licensing Framework for Spectrum in the 3800 MHz Band.¹ Collectively, we represent the interests of more than 322 airlines and 39 other commercial operators, many of whom fly to, from, or within Canada or connect with carriers that do the same.² As such, our members have a significant interest in the outcome of this consultation.

First and foremost, our members are committed to providing safe air transportation. We recognize that some regulations are necessary to prevent inadvertent negative effects to aviation safety and operations by radio signal interference issues. Canadian and international aviation operates across multiple borders and jurisdictions. We therefore strongly encourage ISED to prioritize aviation safety and uninterrupted flight services for Canadian and international passenger and cargo operations, while simultaneously regulating the implementation of 5G in Canada. ISED can benefit from avoiding the policy mistakes made elsewhere and continue to be a prime global example on how national spectrum regulators can simultaneously facilitate the deployment of 5G while maintaining uninterrupted and safe aviation operations and services to and within nations.

Herein are comments, general and specific, regarding potential safety and operational impacts:

Q1. Coexistence with aeronautical radionavigation systems: ISED is seeking comments on its proposal to extend the mitigation measures described in SRSP-520 to protect radio altimeters from flexible use operations in the 3500 MHz band to flexible use operations in the 3800 MHz band (3650-3900 MHz). This extension is proposed until domestic and international studies are completed. In providing comments, respondents are requested to include supporting rationale and arguments.

¹ <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11757.html>

² A list or description of our Members is included in Appendix A.



Recommendation

Recently, Transport Canada Civil Aviation (TCCA) issued Airworthiness Directives (ADs), a revised Canadian Aviation Safety Alert (CASA) and completed a formal Risk Assessment addressing concerns regarding potential harmful 5G radio signal interference on aircraft radio altimeters and the resultant adverse safety impacts on aircraft systems that are integrated with radio altimeters. This is in alignment with US Federal Aviation Administration (FAA) ADs, Notices to Air Missions, Special Airworthiness Information Bulletins (SAIB), Safety Alerts for Operators, and Alternative Means of Compliance documents and aircraft manufacturer amendments to aircraft flight manuals, all of which provide ample evidence of the significantly adverse impact of poor 5G policymaking and inadequate national spectrum deployment methodology. As reflected in the recent ADs issued by TCCA and FAA affecting all aircraft equipped with radio altimeters and issued type certificates in transport, commuter or helicopter categories, the range of aircraft systems and operations potentially impacted by 5G interference extends well beyond traditional avionics functions to include items such as thrust reversers, automatic brakes, and engine control modules. The aircraft type specific lists of newly restricted systems published by the FAA provides insight into the wide scope of 5G negative impacts on aircraft operations, particularly air transport aircraft.

Additionally, a need exists to also consider the unique nature of aviation emergency service and the safe operation of civil, police, military aircraft, and helicopters with which our members safely share airspace. These types of operations are highly susceptible to 5G interference due to their operations occurring almost anywhere, often at low altitude, frequently at night and in poor weather, and in closer proximity to 5G towers.

The demonstrated negative impacts to aviation safety and operations can be a direct consequence of inadequate national spectrum policies and procedures. It is also noteworthy that, like Canada, several countries have already implemented technical, regulatory, and operational mitigations on 5G systems while more permanent, long-term solutions are being devised.

We therefore urge the Government of Canada to, at a minimum, extend the mitigation measures described in SRSP-520 to protect radio altimeters from flexible use operations in the 3500 MHz band to flexible use operations in the 3800 MHz band (3650-3900 MHz). This enhancement must include measures to protect aircraft operations at all applicable runways at all airport and runway Categories of the National Airport System (NAS) airports, plus Billy Bishop Airport (YTZ), at a minimum, and not be limited to only those with Category 2 and 3 Instrument Landing Systems (ILS) in operation. The extension to include both 3500 MHz and 3800 MHz frequency bands must be maintained as long as necessary until interference studies and empirical evidence from reputable domestic and international sources have been agreed and accepted by all impacted stakeholders, particularly incumbent users of nearby spectrum.

We also urge ISED to extend its technical compatibility study into the 3800 MHz frequency band to better understand the impact of 5G interference to aircraft systems and aviation safety and operation and to consider introducing additional mitigation measures as necessary. We believe the Radio Advisory Board of Canada Working Group on Co-existence of Altimeters & 5G, formed by the Government of Canada, with continuing active participation from ISED and Transport Canada, should serve well as a coordinating and information sharing platform among relevant industry stakeholders; however, it must be clearly understood by all stakeholders that aviation safety and continuing operations must not be compromised.



Conclusion

Canada relies heavily on uninterrupted airline operations to transport passengers and goods to and from their destinations safely and efficiently. Any lack of required mitigations within the Policy and Licensing Framework for the 3800 MHz Band will significantly increase the likelihood of unsafe conditions and thus disrupt airline operations and harm the economy at a time when supply chains are already stretched thin.

We respectfully request that ISED consider and act on our concerns by adopting our recommendation to, at the minimum, enhance and extend the mitigation measures described in SRSP-520 to protect aircraft radio altimeters and associated aircraft systems at all appropriate airports in Canada as long as necessary until such time that interference studies and empirical evidence have been agreed and accepted by all impacted stakeholders and that long-term mitigations as agreed by all stakeholders are completely put in place. We also urge ISED to extend its technical compatibility study into the 3800 MHz band to better understand the impact of 5G interference in this frequency band to aircraft systems and aviation safety and operation and to consider introducing additional mitigation measures as necessary.

Thank you again for the opportunity to participate in this consultation. We hope these comments, as well as those from our member airlines, will support the ISED goal of implementing effective and rational protections for the implementation of 5G in Canada.

Sincerely,

Suzanne Acton-Gervais
Interim President and CEO
National Airlines Council of Canada

Graham Keithley
Vice President and Associate General Counsel
Airlines for America

Douglas Lavin
Vice President, Member and External Relations
– North America
International Air Transport Association

Les Aalders
Executive Vice President
Air Transport Association of Canada



APPENDIX A

Air Carrier Members of NACC, IATA, A4A and ATAC

National Airlines Council of Canada (NACC)

Air Canada
Air Transat
Jazz Aviation LP
WestJet

International Air Transport Association (IATA)

IATA represents some 290 air carriers in 120 countries, including 54 air carriers that directly serve Canada.

Airlines for America (A4A)

Alaska Airlines, Inc.
American Airlines Group, Inc.
Atlas Air Worldwide Holdings, Inc.
Delta Air Lines, Inc.
FedEx Corp.
United Airlines Holdings, Inc.
United Parcel Service Co.
Air Canada (Associate Member)

Note: A4A's other members do not provide direct scheduled passenger service to or from Canada and are not included in this submission.

Air Transport Association of Canada (ATAC)

ATAC's 149 corporate members include 32 airlines, 39 other commercial air operators and 78 industry partners.