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Via email: ic.spectrumauctions-encheresduspectre.ic@canada.ca

Director
Spectrum Regulatory Best Practices
Innovation, Science and Economic Development Canada
235 Queen Street, 6th floor
Ottawa ON K1A 0H5

Re: Canada Gazette Notice No. SLPB-006-18 — Consultation on a Licence Renewal Process for Spectrum in the Bands 849-851 MHz and 894-896 MHz for Air-Ground Services

Attached, please find the reply comments of Rogers Communications Canada Inc. (Rogers) in response to *Canada Gazette*, Part I, September 1, 2018, *Consultation on a Licence Renewal Process for Spectrum in the Bands 849-851 MHz and 894-896 MHz for Air-Ground Services* (SLPB-006-18).

Rogers thanks the Department for the opportunity to provide input on this important issue.

Yours very truly,



Howard Slawner
Vice President – Regulatory Telecom
HS/pg

Attach.

Consultation on a Licence Renewal Process for
Spectrum in the Bands 849-851 MHz and 894-896 MHz
for Air-Ground Services
SLPB-006-18

Reply Comments of
Rogers Communications Canada Inc.
October 10, 2018



Executive Summary

- E1. Rogers continues to support Innovation, Science and Economic Development Canada's review of the spectrum in the bands 849-851 MHz and 894-896 MHz for Air-Ground Services in order to determine the most effective use of this spectrum. The Department should renew the spectrum licences under review for a shorter licence term and without a high expectation of renewal and begin coordinating immediately with the Federal Communications Commission on designating a new regional allocation for the spectrum. This should be combined with a review of other adjacent spectrum in the 800 MHz band that can be added to the commercial mobile spectrum. Increasing and enhancing spectrum availability is vital to supporting the advanced network speeds, capacity, and wireless innovations that Canadians have come to enjoy and demand.
- E2. While all wireless services are facing increased pressure on spectrum resources, the Department should carefully weigh the size and importance of the mobile industry for the majority of Canadians and Canadian businesses when evaluating competing demands for spectrum, especially in urban and suburban areas. Rogers believes there will be significant demand in Canada for the services provided by 5th generation mobile services, and the potential benefits to Canadians and the economy are substantial. The Department has an important role to ensure that Canada continues to be at the forefront of 5th generation mobile technology innovation and adoption by providing access to new spectrum, including by reallocating spectrum used by sun-setting technologies that can no longer effectively or efficiently serve Canadians.

Introduction

1. Rogers Communications Canada Inc. (Rogers) welcomes the opportunity to reply to comments filed by other parties in response to *SLPB-006-18: Consultation on a Licence Renewal Process for Spectrum in the Bands 849-851 MHz and 894-896 MHz for Air-Ground Services*¹ (the Consultation), posted on Innovation, Science and Economic Development Canada's (ISED or the Department) website on September 21, 2018.
2. Rogers stated its position on all of the issues raised in the Consultation in its comments of September 19, 2018. This reply is limited to comments on proposals made by other parties. Failure to address any specific issue raised by other parties should not be taken by the Department as Rogers' acquiescence with the position.

Rogers' Reply to Comments of Other Parties

Q1: ISED invites comments on the proposal to renew spectrum licences in 849-851 MHz and 894-896 MHz for which licensees have met their conditions of licence.

3. Upon review of the other comments, we continue to believe, long term, that there is more value to Canadians for the 849-851 and 894-896 MHz spectrum (the Air-Ground spectrum) if it is repurposed for mobile usage. We agree with SaskTel's view that licensees whom have met all of their licence conditions should have their licences renewed.² However, the Department should strongly reject SkySurf's proposal to renew the licences with a 10-year term and "with a strong probability of renewal."³
4. As the Consultation document states, a shorter licence term is appropriate for the Air-Ground spectrum due to the uncertain nature of the technological and market conditions for the current service.⁴ Further, since the service is regionally harmonized with the U.S., it makes good policy to not have the Canadian licences extend past the end of the October 2026 licence term of the U.S. air-ground licences. Anything longer risks orphaning the spectrum in Canada.

¹ ISED, *SLPB-006-18: Consultation on a Licence Renewal Process for Spectrum in the Bands 849-851 MHz and 894-896 MHz for Air-Ground Services* (Consultation); <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11430.html>.

² SaskTel Comments, para 3.

³ SkySurf Comments, para 20.

⁴ ISED, *Consultation*, para 17.

5. Rogers continues to believe a rolling 3-year licence term without expectation of renewal past October 2026 will provide ISED the maximum flexibility to pursue a new regional designation for the spectrum, while still providing licensees with regulatory certainty for their legacy technology. If the Department moves forward with its proposed single licence term without expectation of renewal, they should align the end date with the U.S. licence. In this case, issuing new licences without the high expectation of renewal typically associated with auctioned licences is necessary in order to allow sufficient flexibility to the Department in responding to future developments.⁵

Q2: ISED invites comments on the proposal that licences issued through this renewal process will not have a high expectation of renewal. Respondents are asked to provide a rationale for their response.

6. Rogers agrees with SaskTel's support of the Department's proposal that licences issued through this renewal process not be given a high expectation of renewal, as this will provide ISED with the flexibility harmonize Canadian spectrum allocations licensing with any changes made by the Federal Communications Commission in the U.S.⁶
7. The Department should strongly reject the proposal by SkySurf and Gogo to renew the Air-Ground spectrum licences with a high expectation of renewal.⁷ SkySurf states that "long-term licence certainty" will allow for technological improvements to current Air-Ground spectrum services that will negate the Department's view that the technology will be supplanted by satellite services. Gogo states its "systems are evolving in the same way traditional mobile terrestrial networks are evolving from 4G LTE to 5G."⁸ However, no convincing evidence is provided to support these claims.
8. In fact, SkySurf states, "the current technology in place in aircraft utilizing [air-to-ground] connectivity in Canadian airspace is CDMA EVDO, Rev B,"⁹ which is a 3G mobile technology. Terrestrial legacy CDMA network operators like Telus and Bell replaced their 3G networks with 3G HSPA technology before upgrading to 4G LTE.

⁵ ISED, *Consultation*, para 18.

⁶ SaskTel Comments, para 8.

⁷ SkySurf Comments, para 21; Gogo Comments, para 8.

⁸ Gogo Comments, para 17.

⁹ SkySurf Comments, para 9.

Further, mobile networks are evolving from 4G LTE to 5G as part of a standards-based approach that does not seem to exist for the current Air-Ground services. Development work on the updated standards-based version of their technology, EVDO Rev C – commonly known as Ultra Mobile Broadband – halted all the way back in 2008.¹⁰ This aligns with Gogo’s claim that they are attempting to develop “proprietary technology” to improve performance.¹¹

9. It seems highly unlikely that airlines will look to invest in upgrading legacy, standards-based 3G mobile systems with proprietary 3G mobile systems. This claim seems even more dubious as the infrastructure for satellite connectivity systems continues to improve and low earth orbit systems are coming online, which will provide airline passengers with connectivity services more comparable to modern terrestrial mobile networks. As the legacy Air-Ground spectrum technology appears to be approaching the end of its usable life, the Department’s proposal to renew the current licences with no expectation of renewal makes the most sense for effective spectrum management.

Q3: ISED invites comments on the appropriate licence term for licences issued through this renewal process. Respondents are asked to provide a rationale for their response.

10. Rogers supports SaskTel’s view that it is essential that Canadian spectrum allocations and licensing for spectrum in the 849-851 MHz and 894-896 MHz bands be aligned and harmonized with the U.S., and that the Canadian licence expiry dates align with the October 2026 licence expiry dates for corresponding licences in U.S.¹²
11. We continue to believe a 3-year licence term, with the potential for up to two additional 3-year renewal terms, provides enough regulatory certainty for the current licensees operating a service near the end of its useful life while giving the Department maximum flexibility to reallocate the spectrum for more efficient use. However, if the Department decides to adopt its proposed licence term in order to

¹⁰ Reuters, *Qualcomm halts UMB project, sees no major job cuts*, November 13, 2008; <https://www.reuters.com/article/qualcomm-umb/qualcomm-halts-umb-project-sees-no-major-job-cuts-idUSN1335969420081113>.

¹¹ Gogo Comments, para 15.

¹² SaskTel Comments, para 9-10.

provide a single licence term without expectation of renewal, they should align the end date with the U.S. licences, October 2026.

12. The Department should reject the proposals by SkySurf and Gogo to renew the licences with a 10-year term.¹³ Renewing the Canadian licence term to a date years past the current term of the U.S. licences risks orphaning the spectrum in Canada. This risk is greatly increased in the regionally harmonized Air-Ground spectrum band, especially as the services within the band are provided in both countries by the same operator.

Q4: ISED is seeking comments on its proposed deployment requirements for licences issued through this renewal process. Respondents are asked to provide a rationale for their response.

13. SkySurf states it is compliant with all deployment requirements but notes that, “a change in the term of license or a reduction in the likelihood of license renewal would likely disrupt existing deployment levels”.¹⁴ Gogo highlights that ISED’s proposal to renew the Air-Ground spectrum licences without an expectation of renewal, a proposal that Rogers supports, could impede continued deployment.¹⁵
14. As long as spectrum licensees have met their initial deployment requirements for renewal, the Department should not impose ongoing or new deployment obligations on any licences in any spectrum band.

Q5: ISED is seeking comments on its proposed annual reporting requirements for licences issued through the renewal process. Respondents are asked to provide a rationale for their response.

15. SkySurf states it endorses the Department’s need to monitor the Air-Ground spectrum usage and that SkySurf will be fully compliant with annual reporting requirements on activities undertaken by themselves and partners.¹⁶ SaskTel also

¹³ SkySurf Comments, para 15; Gogo Comments, para 8.

¹⁴ SkySurf Comments, para 23.

¹⁵ Gogo Comments, para 14.

¹⁶ SkySurf Comments, para 24.

supports the Department's proposed reporting requirements.¹⁷ Rogers does not oppose these views but again recommends that the Department, where feasible, modify the annual reporting requirements for all spectrum bands in order to reduce administrative burdens for both the Department and spectrum licence holders.

Q6: ISED is seeking comments on the proposed conditions of licence for licences issued through this renewal process as set out in annex A.

16. SkySurf and SaskTel both generally support the proposed conditions of licence, with the exception of term length – SkySurf wants licences renewed for 10 years and SaskTel recommends an alignment with the U.S. October 2026 licence terms.¹⁸ Rogers agrees with SaskTel that the Canadian licence term should align with the U.S. Air-Ground spectrum licences, anything longer would create an unacceptable risk of orphaning the spectrum in Canada.
17. Rogers continues to generally support the Department's other proposed conditions of licence, excepting our views that the conditions of licence for spectrum licences in all bands should be modernized around annual reporting, lawful interception obligations should be limited to capabilities that are provided for in industry standards and incorporated in commercially available equipment, and the research and development condition of licence should be phased out.
18. Rogers thanks the Department for the opportunity to share its views and participate in this consultation process.

¹⁷ SaskTel Comments, para 13.

¹⁸ SaskTel Comments, para 16; SkySurf Comments, para 25.