

11 December 2020

Australian 5G Innovation Initiative
Department of Infrastructure, Transport, Regional Development and Communications
GPO Box 594
Canberra ACT 2601

Submitted online: 5GInitiative@communications.gov.au

Re: Comments on Discussion Paper: Australian 5G Innovation Initiative-round one-discussion paper (November 2020)

Viasat appreciates the opportunity to provide comments in response to the Department of Infrastructure, Transport, Regional Development and Communications (“Department”) Discussion Paper titled *Australian 5G Innovation Initiative-round one-discussion paper* (“Discussion Paper”).¹ The Discussion Paper seeks comment on the Department’s 5G Innovation Initiative (“Initiative”) proposing investment in 5G technology trials through emerging commercial use cases for 5G. The Discussion Paper identifies the 27.5-29.5 GHz (28 GHz) frequency band as one of the spectrum bands potentially available for 5G applicants to use for testing under the Department’s Initiative.²

Viasat submits these comments to once again highlight the need to maintain the 28 GHz band in Australia for the Fixed Satellite Service (FSS) as laid out both in the ACMA’s band plan³ and the ITU Radio Regulations⁴ and to ensure that existing and future satellite operations are permitted to operate in the 28 GHz band in accordance with the ACMA’s band plan and without any constraints from terrestrial 5G operations, including for any 5G test operations funded through this consultation.

Viasat has participated extensively in the consultations undertaken by the ACMA on the use of the 28 GHz band. As we have explained in consultations with the ACMA and recently with the Department,⁵ Viasat is building the world’s fastest and highest-capacity commercial satellite

¹ See *Consultation on the design of the Australian 5G Innovation Initiative Round One* (published November 13, 2020) available at: <https://www.communications.gov.au/have-your-say/consultation-australian-5G-innovation-initiative>.

² See Discussion Paper at p. 18.

³ See ACMA 27.5-30 GHz band plan in Figure 1 below.

⁴ See ITU Radio Regulations, Article 5 (2020 ed.), at p. 160 (27.5-29.5 GHz).

⁵ See Viasat comments on Exposure draft of Radio Communications Legislation Amendment (Reform and Modernization) Bill (submitted 24 July 2020) available at:

broadband network, including a satellite planned for launch in 2022 to cover Australia and the Asia-Pacific region. The Viasat network in Australia will provide gate-to-gate service to aircraft at Australia’s airports, pier-to-pier service to ferries and passenger vessels at ports, and critical connectivity to government missions at home and around the world, as well as broadband services to residential and enterprise customers. The capacity required to serve these markets depends on long-term access to adequate spectrum resources in both urban and remote areas, including the 28 GHz band.

A key part of the ViaSat-3 network in Asia-Pacific are the gateways, which Viasat is building in Australia⁶ to support Australia and the full Asia-Pacific region. Those gateways also require assured access to the 28 GHz spectrum band that the ITU and the ACMA have designated primary for satellite operations.

Viasat’s investment in the ViaSat-3 network for broadband connectivity in Australian is based on spectrum availability as identified by the ACMA in September 2019 in Figure 1 below.⁷ The Figure is a reproduction of the published ACMA planning decision for the 28 GHz band. As can be seen, the 28 GHz band is divided into three blocks. All the spectrum is designated as primary for the Fixed Satellite Service (FSS) and secondary for Fixed Wireless Access (FWA), a form of terrestrial fixed 5G service, except the top yellow segment. The top yellow segment assigns the band for FSS gateways and FWA on a co-primary basis in the 600 megahertz (27.5-28.1 GHz) high population areas, otherwise FSS is primary for fixed and mobile services throughout Australia.



Figure 1: ACMA 27.5-30 GHz Band Plan.

More recently, the ACMA consulted on the licensing arrangements for the 28 GHz band, specifically for area wide licensing (AWL).⁸ In those consultations, the ACMA clarified that there

<https://www.communications.gov.au/sites/default/files/submissions/viasat-submission-radiocommunications-legislation-amendment-bill-2020.pdf>.

⁶ See *Australia could host ground infrastructure for next gen Viasat satellite*, ComputerWorld, 9 Feb. 2019.

⁷ See *Future use of the 28 GHz band: Planning decisions and preliminary views* (September 2019); *Planning options for the 28 GHz band – consultation 09/2019* available at: <https://www.acma.gov.au/consultations/2019-08/planning-options-28-ghz-band-consultation-092019>.

⁸ See *Apparatus licenses in the 26 GHz and 28 GHz bands Licensing, technical framework and pricing arrangements consultation paper* (August 2020) available at: <https://www.acma.gov.au/consultations/2020-08/proposed-licensing-arrangements-26-ghz-and-28-ghz-bands-consultation-252020>.

would not be any “mobile broadband use permitted above 27.5 GHz” and that the key difference the 26 GHz and 28 GHz bands is “that mobile use is contemplated in the 26 GHz band but not the 28 GHz band.”⁹ This point was reiterated more recently in October 2020 when the ACMA stated again that “[t]he condition prohibiting mobile transmitters above 27.5 GHz will apply to all AWL [FWA] transmitters.”¹⁰ The ACMA conditioned the operations of terrestrial FWA in the 28 GHz band as FWA is incompatible with the FSS. The prohibition on terrestrial mobile operations allows satellite services to innovate and grow in the 28 GHz band.

Viasat appreciates the opportunity to provide these comments on the Department’s 5G Initiative. It is critical that applicants for funding under the Department’s proposed 5G Initiative take into account the conditions of operation that the ACMA has imposed on terrestrial operators when they consider use of the band for any 5G tests under the Department’s Initiative.

We look forward to working with the Department as we move forward and would be happy to provide assistance as you complete this process.

Sincerely,



Space and Commercial Networks

⁹ *Id.* at p. 11, 22.

¹⁰ See *Licensing arrangements in the 26 GHz and 28 GHz bands: Summary and response to submissions* (October 2020) at p. 16, available at <https://www.acma.gov.au/area-wide-apparatus-licensing-26-and-28-ghz-bands>.