



January 26, 2021

Committee Secretary
Joint Standing Committee on the National Capital and External Territories
PO Box 6021
Parliament House
Canberra ACT 2600
AUSTRALIA

Submitted Online and Via Email: jscncet@aph.gov.au

Dear Committee Secretary;

Space Exploration Technologies Corp. (SpaceX) is pleased to offer the following information to the Australian Parliament's Joint Standing Committee on the National Capital and External Territories (the Committee) in response to its inquiry regarding the availability and access to enabling communications infrastructure in Australia's external territories. Given the emergence of new technologies with the potential to provide reliable and high-quality broadband to all Australian citizens, however remote, SpaceX applauds the Committee's inquiry and appreciates this opportunity to provide input.

SpaceX is rapidly deploying Starlink, a constellation of satellites designed to provide high-speed, low-latency broadband services directly to end-users around the world, including in Australia. In March 2018, the United States Federal Communications Commission (FCC) authorized SpaceX to construct, launch, and operate a constellation of 4,425 satellites operating in low-earth orbit. Since then, SpaceX has launched more than 1,000 satellites, deployed a supporting ground network around the world and initiated beta services for customers in the United States, Canada and the United Kingdom. Within its coverage area, Starlink can easily be shipped, set-up and running within minutes, with download speeds ranging between 50 – 150 Mb/s and latency well below 50 milliseconds. SpaceX continues to expand our satellite constellation and develop its global ground network to enhance Starlink service quality and reliability, as well as its geographic coverage.

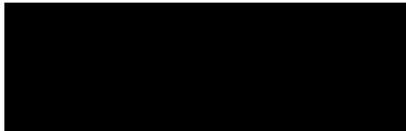
In Australia, SpaceX projects it will have sufficient coverage from its on-orbit constellation to provide broadband connectivity for much of Australian territory within early 2021. SpaceX is also actively pursuing the relevant regulatory authorizations in Australia needed for Starlink satellites and ground infrastructure and services.

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At the current pace of development, SpaceX stands ready to pre-position Starlink for use in certain of the external territories early as 2022. Certain more proximate islands within the external territories, notably the Ashmore, Cartier, and Coral Sea Islands, could be served by early 2022, when SpaceX has more fully populated its satellite constellation with ongoing launches and with the establishment of gateway earth stations at proximate mainland locations. The more remote islands and the southernmost Heard Island and McDonald Islands will require deployment of polar-orbiting satellites employing inter-satellite optical links, a technology that allows customers to be even farther removed from supporting ground infrastructure. On January 24, SpaceX deployed its first ten polar-orbiting Starlink satellites that feature such space-based lasers,¹ but more satellites on orbit are needed in order to provide continuous services to those locations, likely nearer to the end of 2022.

SpaceX thanks the Committee for its inquiry into connectivity options for the external territories and stands ready to connect Australians across all its states, internal and external territories, as soon as possible. We would be pleased to brief the Committee on Starlink and its current and planned capabilities, and welcomes any further questions.

Sincerely Yours,



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¹ <https://spacenews.com/spacex-adds-laser-crosslinks-to-polar-starlink-satellites/>