

Feature Story

Boeing team proposes unrivalled defence SATCOM capability for JP9102

January 10, 2022

Global space know-how, mature satellite design and a local industry team is behind Boeing's proposal to deliver a rapidly-deployable, resilient and reliable defence satellite communications (SATCOM) capability for the Commonwealth of Australia's JP9102 program.

Based on the U.S. military's Wideband Global SATCOM (WGS) system – the backbone of assured and interoperable U.S. and allied defence satellite communications – Boeing's JP9102 offering builds on the capability developed for WGS-11+, the newest addition to the WGS constellation which will provide substantially more efficiency, connectivity, and resilience compared to current WGS satellites.

“Using the WGS-11+ design gives Australia a low-risk, proven next-generation satellite product which will meet Defence's rapid delivery schedule,” said Matt Buckle, Space and Launch business director at Boeing Defence Australia.

Boeing's solution will harness the Boeing Company's six decades of space experience with a local industry-leading team including Saber Astronautics, Clearbox Systems, Leidos, ViaSat, Indigenous Defence and Infrastructure Consortium and Titomic and includes a substantial investment in Australian industry capabilities to deliver sovereign defence SATCOM for Australia.

“When coupled with UHF payloads currently provided by Boeing to the U.S. and Australian governments, and a locally-developed mission systems architecture, it puts us in a unique position to deliver an interoperable solution which maximises reuse of JP2008 infrastructure while providing a resilient and flexible SATCOM capability for the future,” said Buckle.

Boeing's commitment to partnering with the Commonwealth to develop and accelerate Australia's space capabilities is longstanding and not limited to JP9102.

“Our space credentials were bolstered in 2019 with the signing of a Statement of Strategic Intent with the Australian Space Agency,” said Buckle. “We have since collaborated on multiple projects including providing technical support on capability roadmaps, advancing antimicrobial testing for space missions, and developing simulation software which is currently used in the United States for rocket tests and satellite launches.”

Boeing's research and development partnerships and investments uniquely position the company to amplify Australia's place in the global space sector. These include:

- A 32-year partnership with CSIRO comprising research programs on space situational awareness, space manufacturing and materials, on-orbit image processing and analytics;
- Local research arm, Boeing Research and Technology-Australia's development of innovations including artificial reality training and weather server and remote testing technology;
- Enduring partnerships with industry and a number of leading Australian universities including the University of Queensland, Queensland University of Technology, RMIT and the University of Melbourne.
- Investment in a number of STEM programs such as the Australian Space Design Competition and Future U.

“We stand ready to continue our track record of building in-country capability, generating local jobs and talent, establishing export opportunities for Australian small businesses, and nurturing the next generation of space innovators,” said Buckle.