

Feature Story

Boeing completes pioneering battlespace communications system

- Boeing Defence Australia has completed the final deliverables of one of the most advanced integrated battlefield telecommunications networks ever developed which enables deployed forces to securely connect to each other and headquarters anytime from anywhere.

October 5, 2022

In 2015, Boeing Defence Australia was formally tasked with modernising the Australian Army's battlefield telecommunications network under Land 2072 Phase 2B. In just eight years, a team of more than 200 people, located primarily in Brisbane, has designed and developed a world-leading system which provides the Australian Army with access to more voice, data and video services in the field than ever before.

Named "Currawong" by the Australian Army, the system comprises all of the technology and hardware needed to enable deployed forces to securely connect to one another and headquarters from anywhere in the world, anytime.

It includes multiple transmission options, from Wideband Global Satellite to fibre to public networks, combined with innovative system management and networking software, to deliver high-quality, uninterrupted communications services. These services can be tailored for any sized mission — from supporting a small unit to providing full remote headquarter operations.

"The Currawong Battlespace Communications System is one of the most successful complex development programs undertaken in our recent history," said Scott Carpendale, vice president and managing director of Boeing Defence Australia.

"Approximately AUD \$700 million was invested in design, development and production of this purpose-built system which firmly establishes Australia as a leader in development of sophisticated military communications products and systems."

The game-changer for the project was the adoption of an agile development methodology which involved building small capability blocks and testing them often with the Australian Army end-user.

"The close collaboration between Boeing Defence Australia and the Commonwealth in the design and development of the Integrated Battlefield Telecommunications Network (I-BTN) has been key in the successful implementation of this capability for Defence," said COL Michael King, Director Land Command, Control, Communications and Computing (C4) Program within Army Headquarters.

“The relationship has been built on a shared commitment to provide soldiers and commanders the equipment to achieve the mission, and a willingness to work to a common goal of continuous improvement to meet emerging requirements.

“The I-BTN of today has continued to be developed alongside the introduction of new technologies to ensure there is an up-to-date, adaptive and resilient network architecture for Defence’s land domain,” said COL King.

Also key to the program’s success was the engagement of an extensive network of Australian small-to-medium enterprises.

“More than 220 Australian businesses provided everything from ground-up electronics to mechanical and software development,” said Tom Minge, Boeing Defence Australia Currawong program director.

“Their capacity to respond to changing customer requirements with agility, to push boundaries and work at pace has been vital to BDA’s ability to innovate and successfully deliver our milestones on time and on budget.”

With the initial acquisition program under Land 2072 Phase 2B mostly completed, Boeing Defence Australia is already taking the battlespace communications system to the next level – through further advancement to safeguard its relevance for an evolving threat environment, and through application to other platforms to make it a true joint force architecture.

The first major development has been the extension of the Australian government’s commitment to the program through a multi-year Capability Enhancement Program.

“In the past, at the completion of development programs such as Currawong, we would traditionally shift to a pure sustainment contract, with limited scope for upgrades and enhancements,” said Minge.

“But in a tangible demonstration of the value of the capability, the Australian government has funded the continued evolution and development of the system through to 2026, committing to its longevity and future-proofing communications connectivity for Australian deployed forces globally.”

Boeing Defence Australia is also actively exploring the application of the Currawong capability to other platforms.

It has already been incorporated into Army vehicle tactical communications and has potential application for export and as a solution for SEA 1442, the Royal Australian Navy’s maritime communications program.