

Calling Currawong

Communications system gets the message through

BY BELINDA EGAN, BOEING WRITER
ALL PHOTOS: BRUCE GIBSON/BOEING (UNLESS INDICATED)

When Angela Glasson joined the Australian Army, her communications equipment took up the space of a small truck. Now it can be delivered from a backpack.

Glasson's fascination with communications began when she first saw GPS satellite technology directing tractors to achieve perfect crop rows, minimizing waste and optimizing the harvest season in Australia.

Like many New Zealand secondary school graduates, she spent several years working and travelling through Australia, including working in rural farming areas, before settling into a career. Spurred by her curiosity about how satellites work, she joined the Australian Army and enjoyed a 17-year career in a range of communications roles. In 2021, she took on a role with Boeing Defence Australia working on the Currawong Battlefield Communications System.

VOICE OF EXPERIENCE

With a career start as an army communications operator, Angela Glasson relies on her deployment experience as she helps develop communications technologies that connect and protect Australian Defence Force members.



SIGNATURE SLOUCH

In her first official army photo, Glasson wears the signature headdress of the Australian Army, commonly referred to as the slouch hat. Glasson deployed throughout the Asia-Pacific region during 17 years in the army.

PHOTO: COURTESY OF ANGELA GLASSON

“Reliable, consistent and secure communication is critical to commanders in deployed environments. It enables them to understand and respond to what is happening in their surroundings and accelerates response times to allow for effective high-level planning and execution of tasks in the battlespace.”

**ANGELA GLASSON,
BOEING PROJECT MANAGER**

Field revelations

“During my career in the Australian Army, I deployed to multiple countries in the Asia-Pacific region, including Timor-Leste, the Solomon Islands and Papua New Guinea,” Glasson said. “Our mission was to restore stability in these countries following periods of civil unrest.”

Glasson’s role was to enable tactical and strategic communications through a secure network to support Joint Task Force operations.

“Reliable, consistent and secure communication is critical to commanders in deployed environments. It enables them to understand and respond to what is happening in their surroundings and accelerates response times to allow for effective high-level planning and execution of tasks in the battlespace,” said Glasson. “My duties ranged from setting up and maintaining large-scale tactical and strategic communications to small deployable teams.”

On deployment, Glasson worked in remote locations, staying on the move, assembling and disassembling bulky equipment.

“At times we were traversing difficult or hilly terrain, and my equipment to support just one individual could weigh up to 50 kilograms. We had a real need for field equipment that was portable, lightweight and intuitive.”

Today, Glasson proudly works on a deployable communications system that protects and connects Australian Defence Force members anywhere in the world.

“When I first saw what Boeing was doing with Currawong, I immediately understood its value for the end user,” Glasson said.

Soon after, she left the army and took a role with Boeing.

“I could see that the Boeing team was thinking out of the box. They had addressed many of the restrictions that had limited me when I was in the field and opened up new forms of communication,” Glasson said.



OFF ROAD

As the Australian Army deploys in remote and isolated environments, they can rely on the durable Currawong system. At the Army Testing Grounds in Monegeetta, north of Melbourne, Australia, this mobile headquarters gives commanders everything they need to stay connected while on the move.





MISSION TO TEST

Boeing engineer Luke Biddle, right, helps prepare a radio networking device for field testing at Gallipoli Barracks, Enoggera, Queensland.



Unlikely connections

One example Glasson gives is the Radio Interface System, which allows multiple radios, not dependent on type, to connect to each other.

“It sounds simple, but before this system was implemented, all radios in a network had to be like for like, which put a burden on unit resources,” she said. “The Currawong RIS revolutionized field communications, allowing users to connect to the radio network via a number of different types of hardware, including desktop phones — an entirely new way of communicating.”

From radios to satellites to secure public internet network access and mobile vehicle-mounted headquarters, the Currawong system adapts to mission requirements. Operators can scale it up or down to support small units of five users or major task forces of up to 500 users.

“As Boeing developed the technology, we operated in a continual agile development cycle,” Glasson said. “We worked fast, tested fast and learned fast in a continuous feedback loop.”



DIRECT CONTACT

Australian Defence Force members stay in touch by connecting up to six radios through the Currawong system.

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MESSAGE BEARER

The mission system manager, housed in the small laptop device, chooses the best transmission option, such as satellite, cable or antenna, and switches seamlessly between methods so operators never lose their connection. The case on which it rests provides power and supports a range of plug-ins, including networking, routing, video, voice and data services.



CALL IN THE WILD

The call of a pied currawong rings loud and clear, reaching throughout remote regions of the Australian outback. Aptly named, the Currawong Battlefield Communications System connects the Australian Defence Force anywhere in the world.

IMAGE: BARRY CALLISTER PHOTOGRAPHY/GETTY IMAGES

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Work, test, learn, repeat

Glasson coordinated a unique approach to testing demonstrations, called Mission System Integration Test Events (MSITEs).

“In the early days of development, these events enabled army operators to test new hardware and software prototypes firsthand,” she said. “As we progressed, our engineers used the MSITEs to present various systems and their capabilities to our army and industry stakeholders.

“The system was delivered on time and on budget, and much of its success came from working directly with army operators to test concepts, gain real-time feedback, make improvements and drive innovation.”

Glasson now works on projects that incorporate Currawong components into other military platforms and programs. Boeing Defence Australia has adapted the system for use by the Australian navy and air force and is working to anticipate future battlespace communications needs and exploring how to support its Defence Force customer.

“It means a lot to me to be part of developing such an exceptional capability, knowing that those who come after me are benefitting from a contemporary communications system that is fit for purpose and is constantly evolving to keep them safe and connected,” Glasson said. **IQ**

BOOST YOUR IQ
Count the ways
Currawong connects
deployed forces.

