



Public Australian Industry Capability Plan Contract No: CASG/JSD/Con7146/1 (Acquisition)

JP9101 Defence High Frequency Communications System

Company Details

- Babcock Proprietary Limited
- Level 9, 70 Franklin Street Adelaide SA 5000
- www.babcock.com.au

Executive Summary

The Commonwealth has contracted the Acquisition and Support of the JP9101 EDHFCS capability to Babcock Australia under two separate contracts. We are seeking capabilities that support further innovation and contesting of more work packages to be contracted to Australian SMEs. This Public AIC Plan is for the Acquisition scope of work.

The purpose of the Defence High Frequency Communication System is to provide effective, flexible and responsive Strategic HF communications capability to deployed land, sea and air assets and the ADF war-fighter. The JP9101 Contract shall deliver an Enhanced Defence High Frequency Communications System (EDHFCS) to retain an enduring long-range HF capability to 2040. The capability will be highly automated and advanced, delivering reliable information exchanges faster and further than the legacy Defence High Frequency Communications System (DHFCS).

The JP9101 will include the upgrade of the following missions systems;

- Transmission Subsystem (TXS) consisting of the HF radio transmission equipment including the transmit antennas, antenna matrices, modems, modem controllers and radio frequency transmitters including the exciters.
- Reception Subsystem (RXS) consisting of the HF radio reception equipment including the receive antennas, receive matrices including receiver array distribution equipment, receive modems, modem controllers and radio frequency receivers.
- Automated Control and Monitoring Subsystem (ACMS) to control and monitor the radio equipment, creating circuits to deliver HF communication services. The ACMS is formed primarily from COTS Information Technology (IT) equipment including servers, operator workstations, voice switching equipment, data and network switching equipment, timing reference equipment and software for control and monitoring.
- Message Handling Subsystem (MHS) which provides the capability for the operators to draft, send and receive formal military messages.
- STANAG 5066 (ST5066) an element within a subsystem which provides North Atlantic Treaty Organisation (NATO) defined capability to enhance the performance and delivery of messages. It



enables the exchange of Internet Protocol (IP), Email, Allied Communications Publication (ACP) 126/127/128 formatted messages and provides the capability defined by STANAG 4406 Annex E.

- Tactical Data Link Subsystem (TDLS) delivering NATO Link 22 capability for the handling and exchange of tactical data between units of participating allied nations e.g. to provide a Common Operating Picture (COP).
- Direction Finding and Signal Improvement Subsystem (DFSIS) which provides the capability to direction find on signals of interest and perform signal conditioning functions. This subsystem incorporates the Nullarbor receive arrays.

Prime Contract Duration and Price

The duration of the Acquisition contract is approximately 7 years from the Contract Effective Date (ED) being 21 October 2022, with forecast completion date of mid 2029.

| Contract | Component | Value |
|----------------------|---------------------------------------|----------|
| Acquisition Contract | Total Contract Value | \$516.2M |
| | Total Australian Contract Expenditure | \$400.5M |
| | Total Subcontractors (forecast) | \$135.9M |

Subcontracted Work

The scope of work subcontracted to Australian industry, in the form of Australian Contract Expenditure is approximately; \$123.3M with the primary suppliers and subcontractors to be utilised in the delivery of the Contract identified in the table below.

| Australian Subcontractors | Description of Australian Industry Activity Scope of Work | Location |
|--|--|---------------------------|
| Lockheed Martin Australia Pty Ltd ¹ | Automated Communications Sub System delivery, Systems Integration and Test Lab support, System Engineering and Technology Evolution Program Support | Adelaide, South Australia |
| Ventia ¹ | The de-commissioning, site works and installation of the EDHFCS Mission System to the existing DHFCS Mission System baseline. | Sydney, New South Wales |
| Ebor Systems Pty Ltd ^{1, 2} | Specialist HF design and development, providing the Direction Finding/Signal Improvement (DFSIS) subsystem of the Mission System. | Adelaide, South Australia |
| Daronmont Technologies ² | Design, build and installation of the deployable node cabins to support the transition of the existing DHFCS Mission System to the future EDHFCS Mission System. | Adelaide, South Australia |
| CyberCX ² | Cyber-security accreditation, assurance and network monitoring. | Adelaide, South Australia |

¹Approved Subcontractors

²SME

Transfer of Technology

Babcock is transferring significant intellectual capital, technology, knowledge and experience from its existing Defence Communications team in the UK to Australian Industry so as to establish a Sovereign Industrial Capability.



The JP9101 EDHFCS Contract contributes to the following Sovereign Industrial Capability Priorities (SICP);

- Surveillance and Intelligence and
- Test, evaluation certification and systems assurance.

These SICPs include the following Critical Industrial Capabilities (CIC)

- A digitally capable and specialised workforce
- HF sensor technologies
- Command, Control, Communications, Computing and Intelligence (C4I) Integration
- Secure Communication Technologies
- Advanced Information Network Certification and Systems Assurance

Specifically, Babcock is prescribed under the Contract to establish and retain the Australian based industry capabilities necessary to both evolve and sustain the EDHFCS.

The Approved Subcontractors' are Australian companies already recognised for their technological and capability leadership and significant contribution to creating, enhancing and maintaining the relevant Critical Industrial Capabilities.

Australian subcontractors and suppliers (especially those SMEs, indigenous owned businesses and/or those veteran organisations) with capabilities that align with or are complementary to the above CICs should register with Babcock via the Babcock Representative identified below.

Babcock will continue to liaise with the Indigenous Defence and Infrastructure Consortium (IDIC) and Supply Nation in identifying and developing Indigenous supplier opportunities in line with the Commonwealth's Indigenous Procurement Policy (IPP).

In addition to the above, Babcock is committing to;

- Partnering with Australian companies that have relevant HF expertise, to enable them to develop and maintain relevant CICs.
- Locate the Contractor Support Facility in South Australia to create an Economic Cluster in High Frequency technologies.
- Establishing export pathways through application of common architectures to those being installed in other overseas partner nations.
- Establishing a User Nations Working Group, as a platform for highlighting the capabilities of Australian Industry to other users.

Babcock is implementing a spiral approach to system evolution and growth. This will enable market testing opportunities for Australian industry to benefit from future investment in JP9101. As a result, the CICs will be enhanced in areas relevant to the Technology Evolution Program, including systems and software engineering, algorithm development, systems integration, verification and hardware.

Future Work Opportunities

Current and future opportunities exist for Australian companies with new or emerging capabilities within the CICs including those that align with specific opportunities identified in the table below.



The systems integration activities will predominantly be undertaken within the Babcock Contractor Support Facility (CSF) in Adelaide, South Australia however, Babcock's sourcing strategy has a strong national focus.

| Description of the Goods / Services for which the Source of Supply is still to be Determined | Opportunities for the Participation of Australian Industry and timeline | Description of opportunity, or rationale for no opportunity |
|--|--|---|
| HF Transmitter and Receiver Antennae | Future upgrades to DHFCS under the Technology Evolution Program, post Increment 1. | New and improved antenna systems and phased arrays. |
| HF Transmitter and Receiver equipment (Radio, Power Amplifier, Receiver) | Future upgrades to DHFCS under the Technology Evolution Program, post Increment 1. | New and improved power amplifiers with improved performance in wideband domains. |
| HF Modems | Future upgrades to DHFCS under the Technology Evolution Program, post Increment 1. | No known local supplier with viable product in relevant technical domain. |
| Switch Matrices | Opportunity to supply for JP9101, from ED onwards. | Replacement of existing switch matrices through obsolescence management. |
| Digital Receivers | Future upgrades to DHFCS under the Technology Evolution program, post Increment 1. | New and improved digital receivers with improved sensitivity / staring receiver architecture. |

Market Engagement

Babcock will engage the market extensively during the initial 2 years of the program with future evolution and growth opportunities expected to drive ongoing engagement requirements. Specific market engagement initiatives will be advertised and promoted including via the following methods;

- Utilising its existing Australian supply chain and those suppliers identified in its JP9101 market surveys to identify candidate companies
- Conduct industry briefings via federal and state government forums and representative bodies
- Soliciting requirements via the Industry Capability Network (ICN) Gateway
- Direct contact from Australian suppliers that are able to demonstrate required capabilities.

When firms make general inquiries, Babcock will respond within 20 business days. Australian entities should contact the Babcock Australia Representative via the details below.



| Contact Name | Contact Details |
|--------------|---|
| Address | Babcock Australasia, Level 9, 70 Franklin Street Adelaide, SA 5000. |
| Phone | +61 (0)8 8440 1400 or +61 439 155 339 |
| Email | eric.leo@babcock.com.au |
| Website | www.babcock.com.au |

Approval

Nicole Nader
Senior Project Manager – JP9101
Babcock Pty Ltd