

# Australian Defence Sales Catalogue

## Australian Defence Export Office



2020, Edition 4



# Foreword

It is my pleasure to release the 2020 edition of the Australian Defence Sales Catalogue. This fourth edition of the Catalogue showcases some of Australia's leading products, technology and services available for export from Australia's world class defence industry sector.

The Australian Government is keen to promote and grow our innovative defence industry and enhance the export potential for the thousands of small businesses operating in this sector across the country.

This edition of the Catalogue is larger in content and sees a further increase in the number of small businesses representing the defence industry sector. In total 170 Australian defence industry sector businesses are featured in this edition. More than 100 of these companies offer engineering services, 75 companies are involved in through-life support and sustainment and over 40 companies are involved in skilling and training. Counter-drone technology, medical, logistics and cyber security also feature in the following pages.

The Catalogue is a major initiative of the Australian Defence Export Office, which was established as part of Australia's Defence Export Strategy, and coordinates the whole-of-government effort to support the export success of Australian defence industry. We believe the products and services featured here will meet key capability requirements of our friends and partners across the world.

Like previous editions, this Catalogue also highlights Australian Defence Force platforms that are either surplus to Australia's needs, or platforms that will shortly be coming out of service. These platforms are available on an International Government-to-Government sale transfer basis, and partner countries interested in these platforms are encouraged to complete an Expression of Interest.

The Catalogue also includes important information on support available to Australian defence industry as well as foreign defence industry, including Defence Export Controls, Australian Defence Export Office, Centre for Defence Industry Capability, Team Defence Australia, Export Finance Australia and Austrade. This support is part of the Australian Government's \$1.6billion investment in further building the capacity and capability of Australia's defence industry and innovation sector.

I encourage you to use the Australian Defence Sales Catalogue as a guide to the world-class capabilities of Australia's defence industry. If you are interested in seeking information on any of the capabilities of Australian defence industry, please discuss with your designated Australian Defence Attaché or contact the Australian Defence Export Office.



The Hon Melissa Price MP Minister for Defence Industry

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# Introduction

The Australian Defence Force (ADF) upgrades and replaces equipment progressively and routinely disposes of surplus equipment. Australian Military Sales (AMS) is the group responsible for managing the sale and transfer of surplus ADF equipment inventory to approved foreign government customers under international Government-to-Government transfer arrangements. Not all equipment is available now, however an 'Expression of Interest' (EOI) form (available within this Catalogue and AMS website) can be completed and emailed to AMS for governments wishing to discuss availability.

This is the fourth year AMS has produced the Australian Defence Sales Catalogue (the Catalogue). Editions are available in hard copy as well as soft copy, downloaded from the AMS website at https://www.defence.gov.au/Export/australian-military-sales/

The Catalogue also includes an Australian defence industry section, where various defence industry companies have been selected to showcase their products and services. These companies represent a cross-section of defence industry from every state and territory within Australia. They have committed to research and development and in many instances the products and services listed have been used by the ADF, developed for use or development is supported by Defence. If you are interested in any of the listed products and/or services please complete the EOI form or visit the company's website. You can do this by clicking on the company's logo at the top of each page on the online PDF version of this Catalogue. A full list of company websites, with a hyperlink (for the online version) is listed at the back of this edition of the Catalogue.

This Catalogue is edition 4.

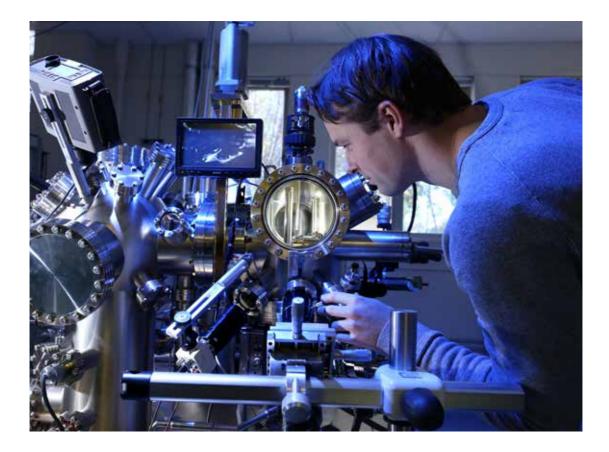
Note: Inclusion of items in this catalogue does not constitute or guarantee availability to any or all parties.

The approval for the sale of defence equipment from Australia is undertaken via a process independent from AMS to ensure appropriate governance. A Defence Export Permit may be required – for further information please refer to Defence Export Controls, on page 14.



# **Section One**

# Australian Defence Industry – Doing Business



# Australian Defence Export Office

# Defence Export Strategy – building resilience in Australian defence industry

Over the next decade, the Australian Government's Strategic Goal is to achieve greater export success to build a stronger, more sustainable and more globally competitive Australian defence industry to support Australia's Defence capability needs. The Defence Export Strategy (the Strategy) is the Australian Government's plan to support Australian defence industry to achieve greater export success.

The Defence Export Strategy allows the Australian Defence Export Office (the ADEO) to foster important strategic partnerships with Australia's current and future defence customers. Through both the responsible sale and gifting of cutting edge, locally-made and developed military hardware and technology to our likeminded neighbours and allies, Australia is making an active investment in both the collective security of our region and the rules-based global order as a whole. Australia takes pride in its reputation as a reliable and ethical friend, and the ADEO seeks to build long lasting relationships that are built on trust as much as transaction.

## The Australian Defence Export Office – the focal point to export support

The ADEO coordinates whole-of-government export support for Australian defence industry. The ADEO works closely with Austrade, the Centre for Defence Industry Capability, the Department of Foreign Affairs and Trade, Export Finance Australia, and Australian defence industry to realise export success. This includes attendance at international trade shows with Team Defence Australia; targeted international trade missions; inclusion in the Australian Defence Sales Catalogue; Government-to-Government transfers of defence related materiel, and high-level advocacy through the Australian Defence Export Advocate.

Australian Military Sales is able to support Australian defence industry to export to foreign government customers. This includes promoting Australian defence industry capabilities through the publication of the Australian Defence Sales Catalogue.

The Team Defence Australia initiative is delivering an expanded program of international trade shows, complemented by a program of targeted trade missions, to showcase Australian defence industry capabilities on the world stage. These targeted missions will be matched to suitable international opportunities across the defence capability spectrum.

Australian Military Sales and Team Defence Australia are supported by a market intelligence capability. This capability informs the priorities of the ADEO and identifies opportunities to maximise export success. These two key support mechanisms are discussed on subsequent pages.

The ADEO coordinates engagement with a network of Defence Attachés and Austrade offices, providing advice and support to help Australian defence industry access export opportunities. In collaboration with Austrade, Business Development Managers have been appointed in the United States, United Kingdom, Germany, France, Indonesia, and Japan to further expand our international reach and engagement.

States, territories and their respective defence advocates are crucial to understanding export opportunities and have been vital in reaching out to defence industry. The ADEO works across government and industry to understand export opportunities and tailor support to industry through available resources and international networks.

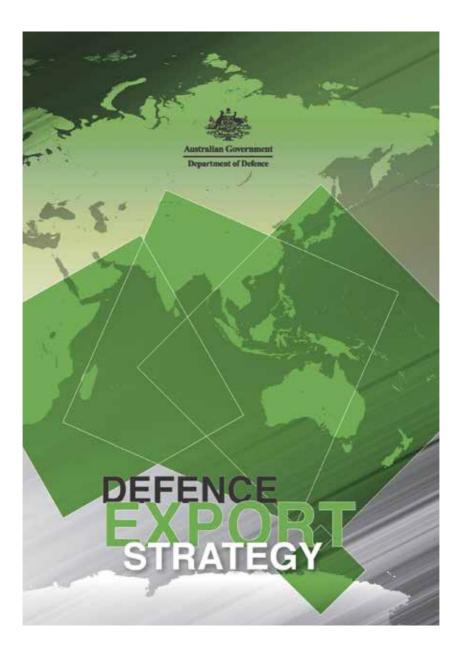
## The Australian Defence Export Advocate

On 9 April 2018, the Hon David Johnston was appointed as the first Australian Defence Export Advocate (the Advocate). The Advocate undertakes high-level advocacy on behalf of Australian defence industry, articulating the right messages, to the right people, at the right time.

Over 2019, the Advocate undertook several international missions on behalf of Australian defence industry, including leading the first Defence Trade Mission to Japan and supporting the Team Defence Australia delegation at the Defence and Security Equipment International exhibition in London.

The ADEO utilises senior military reservists for export advocacy, including during trade shows and targeted trade missions. The ADEO also supports Australian industry through advocacy from ministers and senior leaders in the Department of Defence.

To understand how the Australian Defence Export Office can assist your business in its export endeavours, visit their web site **www.defence.gov.au/Export/Office** or email them on **aust.deo@defence.gov.au** 



# Sovereign Industrial Capability Priorities

## What are Sovereign Industrial Capability Priorities?

Sovereign Industrial Capability Priorities are capabilities that are critical to Defence and must be developed or supported by Australian industry. This means Australia must have access to, or control over the skills, technology, intellectual property, financial resources and infrastructure that underpin the Priorities. The Priorities represent a subset of the industrial capabilities that Defence relies on to deliver its core objectives and will be managed closely across defence and industry planning.

Sovereign Industrial Capability Priorities are those industrial capabilities assessed as:

- operationally critical to the Defence mission;
- priorities within the Integrated Investment Program over the next three to five years; or
- in need of dedicated monitoring, management, and support due to their industrial complexity, Government priority, or requirements across multiple capability programs.

The Sovereign Industrial Capability Priorities are (in no particular order):

- Collins Class submarine maintenance and technology upgrade
- Continuous shipbuilding program (including rolling submarine acquisition)
- Land combat vehicle and technology upgrade
- Enhanced active and passive phased array radar capability
- Combat clothing survivability and signature reduction technologies
- Advanced signal processing capability in electronic warfare, cyber and information security, and signature management technologies and operations
- Surveillance and intelligence data collection, analysis dissemination and complex systems integration
- Test, evaluation, certification and systems assurance
- Munitions and small arms research, design, development and manufacture
- Aerospace platform deep maintenance.

The Sovereign Industrial Capability Priorities identify a number of elements of the Australian defence industrial base at a capability rather than company or technology level. This encourages innovation in existing technologies and provides flexibility in supporting current critical capabilities.

# **Defence Policy for Industry Participation**



### Defence Policy for Industry Participation

The Defence Policy for Industry Participation was launched in March 2019. The Policy strengthens and extends the requirement to maximise Australian industry involvement in Defence materiel and non-materiel procurements over \$4 million, and to construction services over \$7.5 million.

The Policy's core element is to maximise opportunities for Australian Industry to participate in Defence procurements. This approach requires tenderers to demonstrate appropriate and formal consideration of Australian industry locally and nationally with an industry schedule or plan that forms part of their tender response. Whether a schedule or plan is used will depend on the size and nature of the procurement. This new approach will be implemented as follows:

- Procurements valued less than \$4 million no specific Australian industry tenderer documentation required.
- Procurements valued between \$4 million and \$20 million an Australian Industry Capability Schedule.
- Procurements valued at \$20 million or more an Australian Industry Capability Plan.
- Construction services valued at \$7.5 million or more a Local Industry Capability Plan.

Implementation of the Policy, including guidance material for industry, will continue over 2020.

For more information, visit: http://www.defence.gov.au/SPI/Industry/AIC.asp

All inquiries should be sent to: aic.info@defence.gov.au

# **Defence Export Controls**

## Regulating the Export of Defence and Strategic Goods and Technologies

Australia's export control framework is a key element of the Defence Export Strategy. Defence Export Controls (DEC) administers Australia's export control framework, which operates to ensure Australian trade in military and dual-use goods is consistent with our strategic priorities and the national interest. If you wish to export, supply, publish or broker goods and technologies on the Defence and Strategic Goods List, you must have a permit in specified circumstances. The Defence Export Controls website provides information on when a permit is required and how to apply to obtain a permit – https://www.defence.gov.au/ExportControls/Default.asp

DEC also facilitates membership into the Australia community for the purpose of the Australia-US Defence Trade Cooperation Treaty. More information is available: https://www.defence.gov.au/ExportControls/TradeUSA.asp

In accordance with Australia's export control legislation, all applications considered by Defence are subject to a rigorous risk assessment process. This process considers Australia's international obligations, including under the Arms Trade Treaty, as well as considerations relating to foreign policy, human rights, national security and regional security.

All export applications are administered online through the Defence Export Controls System (DECS). Before submitting an application, exporters must register for a DECS Client Registration Number (DCRN) on the DEC website (http://www.defence.gov.au/ExportControls/). Once you have a DCRN, you may then apply online for:

- a new permit to export, supply, publish or broker military or dual-use goods or technology (including for transshipment through Australia and for repair or return purposes);
- multi-party (project) permits and permits to match contracts;
- an in-principle assessment;
- a permit to export, supply or publish items previously granted in-principle approval; and
- a renewal of a permit or an in-principle approval.

Defence understands that exporters require quick, clear decisions to be commercially competitive. You can help us to provide you with a timely response to your application by ensuring that all the required information is supplied at the time of lodgement. You can do this by ensuring that:

- all sections on the application form are complete and accurate
- a dollar value is included for all items to be exported
- supporting commercial documents are provided (i.e. contracts, purchase orders)
- an end-user certificate is provided when requested by Defence Export Controls. 'DEC03' (commercial entity end-use) and 'DEC04' (foreign government end-use) end-user certificate templates are available on the DEC website (https://www.defence.gov.au/ExportControls/Forms.asp).

You can explore how your goods, technology and specific business activities are subject to export controls using our online tool, available at https://dsgl.defence.gov.au

Defence Export Controls can be contacted by:

- Phone: 1800 66 10 66, or +61 2 6266 7222 from outside Australia
- E-mail: ExportControls@defence.gov.au
- Postal Address:

Department of Defence Defence Export Controls R1-3-A003 PO Box 7901 CANBERRA BC ACT 2610



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# Australian Military Sales

Australian Military Sales (AMS) is part the Australian Defence Export Office. The role of AMS is to support Australian sovereign capability and military sales programs as well as promoting the Australian defence industry through:

- International Government-to-Government sale, gifting or other transfer of surplus Australian Defence Force (ADF) articles
- International Government-to-Government purchase of Australian origin, sensitive technology, and ADF articles
- Supporting Australian defence industry to export to foreign government customers.

The Australian Defence Sales Catalogue (the Catalogue) is a key aid in assisting AMS to achieve their tasks. The Catalogue provides information on surplus ADF equipment for sale across the Air, Land, Sea and Joint domains to foreign government customers. An 'Unclassified' Expression of Interest (EOI) must be completed in accordance with the AMS process in order to commence discussions. The form is treated in confidence. Completion of an EOI does not commit any party to purchase.

AMS offerings are presented in four broad groupings, being:

- 1. Available now materiel and capability systems in the disposals process.
- 2. Expression of Interest materiel and capability systems are still in service with the ADF, but may be subject to intensive management if interest is expressed.
- 3. Allied technology Australian defence industry solutions, for which AMS can act as the broker (if requested) for Government-to-Government sales.
- 4. Other capability.

Please note:

- Completion of an EOI does not constitute a commitment but rather registers a foreign government's interest in a product/service/capability. Likewise there is no guarantee the capability will be available.
- An expression of interest form may be called upon for public release by law under the Australian Freedom of Information Act 1982 (FOI Act).
- Advice on other surplus ADF capability, not catalogued here, may be obtained by contacting AMS.

Equipment information pages identifying the type, quantity, origin and availability of equipment, products and services including any export controls are enclosed. Although not catalogued, equipment spares, and support and test equipment will be available for sale as part of any major item sale or can be sold separately.

Availability dates are a guide only and may be subject to change. Some equipment will be subject to Country of Origin, Foreign Government export approvals. For instance, United States International Traffic in Arms Regulations (ITAR) and require United States Department of State approval. Equipment is offered on the basis of 'as is, where is'.

For further information please email AMS at AMS.mailbox@defence.gov.au

#### Copyright

Commonwealth of Australia



# Centre for Defence Industry Capability





CENTRE FOR DEFENCE INDUSTRY CAPABILITY

Should your business be in this catalogue?

Is your Australian business:

- thinking about exporting?
- looking to expand its export markets?
- seeking access to global supply chains?

### The Centre for Defence Industry Capability can help.

We work closely with the Australian Defence Export Office and multinational defence companies to help Australian defence businesses improve their export competitiveness and identify international business development opportunities.

Our national network of advisers and facilitators supports Australian defence businesses with:

- export readiness assessments, market research and advice, and market testing before committing to export activities
- facilitated access to defence multinational primes, including through the Global Supply Chain Program
- advice on Defence export controls
- export-related grants and financial assistance.

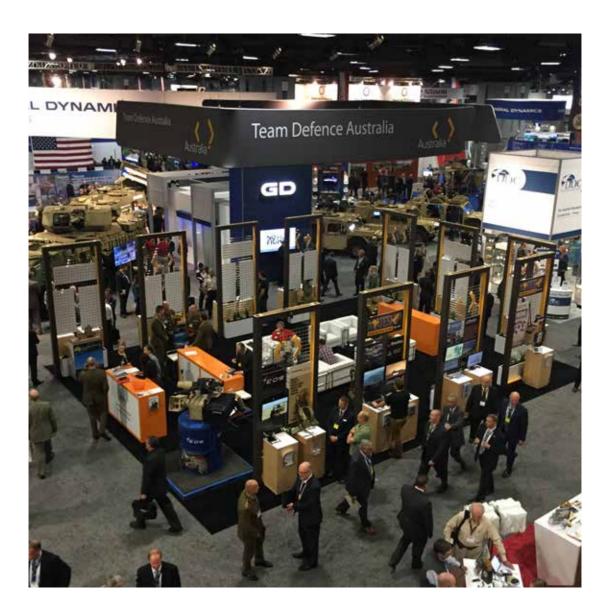
Find out how we can help your business connect with export opportunities: business.gov.au/cdic – 13 28 46

# **Team Defence Australia**

Team Defence Australia continues to promote the capabilities of Australian defence industry to the international community and has done so since 2007. The program has been strengthened through the Defence Export Strategy and will attend an expanded number of international trade shows, complimented by targeted trade missions. These missions will be matched to suitable international opportunities across the full spectrum of defence industry.

Senior ranked officers from the Australian Defence Force reserves lead each Team Defence Australia delegation to advocate for Australian defence industry at these international trade events. Our military specialists provide valuable Australian industry advocacy, support, and advice; and facilitate introductions to other foreign militaries, government representatives and commercial partners.

For details of upcoming trade shows, trade missions and information on how Team Defence Australia can assist you, email us at **teamdefence.australia@defence.gov.au** 



# **Defence Innovation Hub**





The Defence Innovation Hub provides opportunities for research organisations and Australian businesses of all sizes to put forward innovative proposals that can enhance Defence capability. The program accepts proposals that are ready to enter different stages of the innovation process, from concept exploration, to technology development, to prototyping, to demonstration and evaluation. The Hub will invest \$640 million by the end of 2025/26 to mature and develop innovative technologies that can enhance Defence capability.

The Hub runs an open call for proposals against defined priority capability streams, whereby industry can submit proposals to Defence 365 days of the year. From time to time the Hub also runs Special Notices, which is a novel challenge-based solicitation that seeks innovative solutions to specific Defence capability challenges.

For more information, visit https://www.business.gov.au/cdic/innovate-in-defence



# Austrade





The Australian Trade and Investment Commission – Austrade – contributes to Australia's economic prosperity by leveraging our deep commercial knowledge and relationships of our international and domestic networks, and the badge of government, to promote trade and attract productive foreign direct investment into Australia. This includes helping Australian businesses, including those in the defence industry, develop international markets for their products, services and technologies.

Austrade established a Memorandum of Understanding (MoU) with the Australian Defence Export Office (ADEO) in 2018. That MoU sets in place a number of protocols for Austrade and the ADEO to work together – both in Australia and overseas – to support Australian defence exporters. Using its global network covering 49 markets, Austrade:

- connects export-ready Australian businesses to overseas opportunities and works with them to achieve commercial outcomes;
- provides authoritative commercial insights and information to help businesses make informed export and investment-related decisions; and
- provides one-on-one assistance with international market selection and market entry/expansion strategies, including identifying partners and arranging tailored introductions.

To assist with this work, Austrade is finalising recruitment of eight specialist Defence and Security Sector Directors in priority markets to enhance support for Australian Defence exporters. Directors have been appointed in France, Germany, Indonesia, Japan, the United Kingdom and the United States of America and Singapore. A Director for the United Arab Emirates will be appointed shortly.

Austrade also supports and delivers a number of activities and programs to support defence exporters, such as:

- supporting Team Defence Australia trade shows through arranging business meetings and providing market intelligence;
- delivering targeted defence and dual-use business missions to key defence markets;
- leveraging our Landing Pads program to support market-ready defence and dual-use startups and scale-ups to expand – www.australiaunlimited.com/landing-pads; and
- Providing financial assistance for exporters through our Export Market Development Grants scheme https://www.austrade.gov.au/australian/export/export-grants

Defence exporters can also benefit from Austrade's above mentioned services to support other elements of their business. Notably, Austrade can help businesses to enter or expand into other sectors such as services and technology, infrastructure, international health, tourism and regional investment, resources and energy, food and agribusiness, education and advanced manufacturing and space.

For more information on how Austrade can assist companies succeed internationally, please visit www.austrade. gov.au or email the Defence industry team at **defence@austrade.gov.au** 

# **Export Finance Australia**



Australian Government



## About Export Finance Australia

Export Finance Australia is the Australian Government's export credit agency. We help build Australia's export trade by providing Australian businesses with finance solutions to support their export growth.

We provide financial expertise and solutions to support Australian defence exports across a range of sectors including engineering, advanced manufacturing and software. Through our loans, guarantees and bonds we enable SMEs and defence primes to take on export opportunities.

## The Defence Export Facility

As part of the Defence Export Strategy, we also administer the US\$3 billion Defence Export Facility.

This Facility gives the Australian defence industry the confidence to seek new direct export and supply chain contracts, knowing there is a source of finance available. It also allows us to better help businesses receive the finance they need to grow internationally.

## What Defence Businesses Can Export Finance Australia Support?

As Australia's export credit agency, we have a track record of helping Australian defence exporters across multiple sectors such as air, land, sea and cyber security to help them win defence contracts overseas or in the export supply chain.

## Our Criteria

For us to provide our financial solutions, the transaction must:

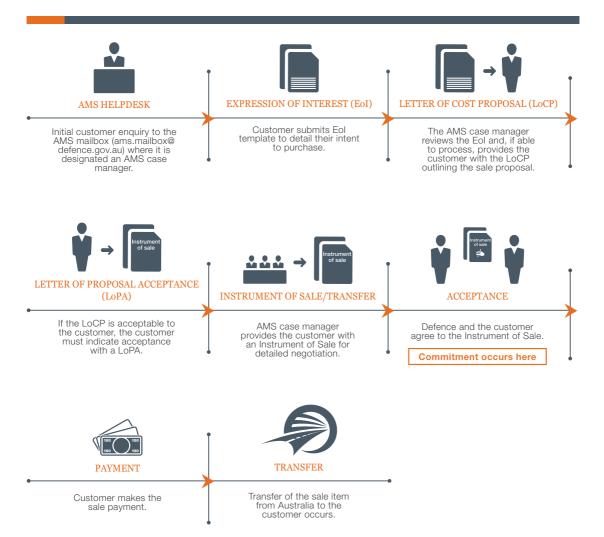
- have the necessary level of Australian content or benefit to Australia;
- be commercially viable; and
- have the required defence export permit or in-principle approval from Defence Export Controls.

## Contact Export Finance Australia

For more information on how we could support you, please call us on 1800 093 724 or visit exportfinance.gov.au

# International Government-to-Government Process

## Generic Transfer Flow Chart



# **Expression of Interest Form**



## **Expression of Interest Form**

Australian Military Sales (AMS)

#### 1: Customer details

Please tick appropriate box

ADF equipment Expression of Interest

Defence industry Expression of Interest

Contact person		
First and last name		
Designation		
Company / Organisation name		
Government or Industry sector		
Address		Country
Email	Telephone	Mobile
	Include area and country code	Include area and country code
2: Product details		
Product name		
Model name / Number (where ki	nown)	
Quantity requested		
Spares requirements		
Training and support requiremen	ts	
Date required	Intended use	Further information
3: Authorisation		
	Circle at use	Data
Authorising officer	Signature	Date
FOR OFFICIAL AMS USE	ONLY	
Date received	AMS reference number	Action officer
	n of Interest only and does not constitute a form r further information on the AMS purchasing pro	al agreement or contract between the Australian cess email <b>ams mailbox@defence aov au</b> All
Expressions of Interest are treated	as in-confidence unless mutually agreed otherw	ise. Please note this Expression of Interest may be
callea upon for public release by lo	w under the Freedom of Information Act 1982 (F	UI ACTJ.

Defending Australia and its National Interests www.defence.gov.au



# Section Two

# Australian Defence Force Platforms

A Defence Export Permit may be required for the products and services shown on each of the following pages.



# UV Lamp Mallina



Image provided by Textron

#### Platform

• UV Lamp Mallina

#### Origin

Australia

Original equipment manufacturer / through-life support partner

• Tenix Defence (acquired by BAE Systems)

#### Spares and support equipment available?

- QTY6 Battery Power Supply NSN 99-958-7434
- QTY6 Tripod, Photographic NSN 66-154-5236
- Variant
- LAMP MRN EU00028-04-04
- ITAR approval required?
- No
- Australian Export Control approval required?
- Yes
- Availability
- 3–6 months

#### Systems

 Capable of performing end-to-end testing of many Missile Warning Systems and has been successfully tested against the AAR-47, AAR-54, AAR-57, AAR-60 and MWS-200 systems

#### Powerplant

 Requires mains power-battery power supply not included

## **Product information**

The ultraviolet (UV) Mallina was developed to provide a means to test UV Missile Warning Systems at long range. It provides a safe, repeatable means to simulate Surface to Air Missile (SAM) engagement scenarios to provide pilot and combat crew training, test and evaluation of electronic warfare self-protection equipment, development of tactics and doctrine.

The UV Mallina achieves this by emulating the UV signature of SAM rocket motors. The operator can control radiation parameters such as radiant intensity and emission time to simulate specific SAM threats and engagement scenarios. Programming cards and software profiles not included in sale.

The UV Mallina is a controlled UV radiation source and requires approval from CEO ARPANSA under regulation 53(1) of the Australian Radiation Protection and Nuclear Safety Regulations (1999) before sale can be finalised.

## Availability

Expressions of Interest.

# Australian Light Armoured Vehicle (ASLAV) – Family of Vehicles



#### Platform

- Australian Light Armoured Vehicle (ASLAV)
  Origin
- LAV25 vehicles from Canada

Original equipment manufacturer / through-life support partner

- General Dynamics Land Systems Australia (GDLS-A)
- Spares and support equipment available?

#### Yes

#### Variant

 Type 1 (general purpose); Type 2 (command, personnel carrier, ambulance & surveillance); Type 3 (fitters & recovery)

#### ITAR approval required?

- Yes
- Australian Export Control approval required?
- Yes

#### Availability

 Eol sought now. Phased withdrawal planned from 2020 delivering up to approximately three Squadrons or up to 12 Troop level capability bricks)

#### Weapon systems

 25mm Bushmaster chain gun, 7.62mm pintle mount, smoke dischargers

## **Product information**

The Australian Light Armoured Vehicle (ASLAV), based on the LAV25 vehicle, continues to deliver the Australian Army's armoured, combat reconnaissance and surveillance capability. It is an eight (8) wheel drive, amphibious vehicle modified to deal with Australia's harsh environmental conditions. The ASLAV fleet, of 253 vehicles in seven variants, is designed to require minimal logistic support when deployed.

The ASLAV Type 1 is fitted with an electric turret, enhanced drive train, improved thermal optics, integrated laser range finder, run flat tyres, small arms resistant armour, internal spall protection and a fire suppression system. Selected vehicles are fitted with remote weapon stations.

## Availability

Expressions of Interest are sought for individual vehicles and capability brick offerings: Troop (5 vehicles – general purpose and personnel carrier variants); Squadron (17 vehicles – general purpose, personnel carrier, ambulance and fitters variants).

# **Bushmaster Protected Mobility Vehicle**



#### Platform

Bushmaster Protected Mobility Vehicle

#### Origin

Australia

Original equipment manufacturer / through-life support partner

Thales Australia

#### Spares and support equipment available?

#### Yes

#### Variant

• Troop carrier, ambulance, command, assault pioneer, air defence, mortar

#### ITAR approval required?

• No

#### Australian Export Control approval required?

#### Yes

#### Availability

 Eol sought now. Phased withdrawal planned from 2030

#### Weapon systems

Weapon mounts for up to three systems, ability to fit remote weapons station

#### Powerplant

Caterpillar 3162E 702 litre turbocharged diesel

## **Product information**

The Bushmaster is a highly mobile, ballistic, mine and improvised explosive device (IED) resistant Protected Mobility Vehicle which provides a high level of crew and passenger protection and survivability through its mobility and monocoque v-shaped armoured hull.

Operated by the Australian Army and Royal Australian Air Force (RAAF) Airfield Defence Guards, the Bushmaster family of modular armoured vehicles offers high levels of protected mobility for combat, combat support and combat service support troops across a diverse range of mission profiles including troop movement, command and control (C2), electronic warfare, air defence, assault pioneer, direct fire support, route clearance and medical evacuation. The Bushmaster is air portable in C-130 aircraft.

## Availability

Expressions of interest are sought for individual vehicles and capability brick offerings: Platoon (four vehicles – Troop carrier variant), Company (17 vehicles – Troop carrier, C2 and ambulance variants).

# Australian M113AS4 Armoured Personnel Carrier – Family of Vehicles



#### Platform

- Australian M113AS4 Armoured Personnel Carrier
  Origin
- United States upgraded in 2012 under Australian M113AS4 upgrade project

## Original equipment manufacturer / through-life support partner

- Upgrade by BAE
- Spares and support equipment available?

#### Yes

#### Variant

• Personnel Carrier, C2, Ambulance, Mortar Carrier, Fitters, Recovery, Combat Service Support

#### ITAR approval required?

- Yes
- Australian Export Control approval required?
- Yes

#### Availability

 Eol sought now. Phased withdrawal planned from 2025 delivering up to approximately three Squadrons or up to 12 Troop level capability bricks)

#### Systems

 Electrically powered turret fitted for M2A2 QCB 0.50cal MG

#### Powerplant

• MTU 6 V 199 TE 20

## **Product** information

The Australian Army fleet of M113AS4 Light Armoured Tracked Vehicles are based on an Australian upgraded version of the United States M113AS1 Armoured Personnel Carrier and is an all-terrain vehicle designed to protect and transport its crew and up to ten combatant personnel.

The M113AS4 incorporates armour resistance to small arms fire, ballistic plating for mine blast protection and spall curtains to maximise personnel survivability. The vehicle is capable of rapid deployment by road, rail, sea or air and designed for highway, off-road and cross-country travel while combat laden.

## Availability

Expressions of Interest are sought for individual vehicles and capability brick offerings: Troop (4 vehicles – Personnel Carrier variant); Squadron (17 vehicles – personnel carrier, C2, ambulance, fitters and recovery variants).

# 81mm F2 Mortar System





#### Platform

81mm Mortar System

#### Origin

Australia

# Original equipment manufacturer / through-life support partner

 OEM-Australian Defence Ordnance Factory / Through Life Support provided by Australian Army and in-house contractor support

#### Spares and support equipment available?

- Yes
- Variant
- Nil
- ITAR approval required?
- No
- Australian Export Control approval required?
- Yes
- Availability
- Approximately 150 systems

#### Weapon systems

• Nil

## **Product information**

The 81mm Mortar F2 is a smooth bore, muzzle loaded, high angle of fire weapon with a total weight of 36.6 kg. The mortar is a derivative of the British 81mm Medium Mortar, which was developed in the United Kingdom by the Royal Armament Research and Development Establishment at Fort Halstead. The 81mm Mortar F2 was manufactured under license by the Ordnance Factory Maribyrnong Victoria Australia circa 1976.

## Availability

Expressions of Interest are sought for the 81mm Mortar System. Approximately 150 F2 Mortar Systems are available for sale. Each system comes complete with a L16A2 Barrel, Blast Attenuating Device, a L5A4 Mortar Mount Bipod and Base Plate. Maintenance records and repair parts are also available upon request. Product detail can be provided on application.

# Underway Replenishment Ship – HMAS SIRIUS



## **Product information**

Sirius has a full load displacement of 46,755 tonnes, is 191.3 metres in length, with a beam of 32 metres and a draught of 11 metres. Propulsion machinery consists of a single propeller shaft driven by a single Hyundai B&W 6S 50MC diesel, supplemented by a bow thruster.

Top speed is 16.5 knots and the ship has a range of 16,000 nautical miles at 14 knots. Sirius can carry up to 34,806 cubic metres of fuel, including 5,486 cubic metres of helicopter aviation fuel, plus 240 tonnes of dry stores carried in a container deck designed for twelve 20-foot intermodal containers.

SIRIUS is fitted with two underway replenishment points, one on each side, allowing the replensihment of two ships simultaneously. A helicopter landing platform is fitted aft and the ship is fitted with two 70 man lifeboats and two Rigid Hull Inflatable boats. The ship is armed with five 12.7 mm (50 cal) machine guns. The ship's company in Royal Australian Navy service has been 8 officers and 46 sailors.

## Availability

The ship is planned to be available from the middle 2021. Please submit an Expression of Interest for further detail.

# **Section Three**

# Australian Defence Industry – Products

A Defence Export Permit may be required for the products and services shown on each of the following pages.



# Austal Australia



Design | Engineering | Manufacturing | Research & Development | Ship Building | Test Equipment Through-Life Support | Training & Education | Other



### **Company Brief**

Austal is Australia's global shipbuilder, defence prime contractor and maritime technology partner; designing, constructing and supporting revolutionary defence and commercial vessels for the world's leading operators.

For over 30 years, Austal has designed and constructed (and continues to deliver) more than 300 vessels for over 100 operators in 54 countries, gaining an enviable reputation for innovative shipbuilding using advanced technologies. From safe, modern shipyards located in

Australia, the United States of America, the Philippines and Vietnam – and service centres located around the world – Austal offers naval, government and commercial operators the highest quality ships, systems and support.

Austal Australia's capabilities include the development of both defence and commercial vessel platforms.

Defence vessels designed and built by Austal Australia include revolutionary, multi-mission surface warfare combatants, such as the Littoral Combat Ship (LCS) for the United States Navy, military high speed support vessels for transport and humanitarian relief, such as the Expeditionary Fast Transport (EPF) for the United States Navy and High Speed Support Vessel (HSSV) for the Royal Navy of Oman.

Austal Australia also designs, constructs and sustains an extensive range of patrol boats for government law enforcement and border protection agencies globally; including the Cape Class Patrol Boat Program for Australian Border Force, Royal Australian Navy, and Trinidad and Tobago Coast Guard.

Austal Australia's defence vessels are developed by highly qualified, experienced naval engineers and designers utilising the very latest in naval architecture systems and constructed at the industry leading shipbuilding facility in Henderson, Western Australia.

Complementing Austal's capabilities in shipbuilding is the company's expertise in the development and integration of advanced vessel control and information management systems, such as MOTION CONTROL and MARINELINK-Smart, Austal offers both defence and commercial operators the latest in maritime technologies to optimise the performance of their ships and their complex on-board management, communications and weapons systems.

Austal provides a wide range of through-life capability management and vessel support services, including crew training and instruction, vessel servicing, repairs and maintenance, integrated logistics support, vessel sustainment, and information management systems support. These services are delivered through our global support network in Australia, the USA, Philippines, Vietnam and the Middle East; together with partner shipyards and service centres worldwide.

# Austal Australia

## Cape Class Patrol Boat<sup>1</sup> | High Speed Support Vessel 72<sup>2</sup>



## **Product information**

#### Cape Class Patrol Boat<sup>1</sup>

The Cape Class Patrol Boat (CCPB) has quickly established a new international benchmark for patrol boat design, construction and performance, with enhanced capabilities and amenities providing greater mission flexibility and crew productivity.

Based on Austal's proven aluminium monohull patrol boat platform, developed over the past 20 years, the Cape Class is ideal for a range of border patrol, surveillance and maritime security and support missions; including illegal drugs and people smuggling interdiction, bio-security and environmental monitoring and search and rescue.

The vessel features two fast response craft (FSC) that may be launched simultaneously off the port and starboard, allowing the quick deployment of crew for interception, boarding operations or rescue missions. New maritime security and mine warfare / hydrographic survey variant concepts were developed in 2016 and have further extended the multi-mission flexibility of the platform.

Austal provides in-service support to both the Australian Border Force and Royal Australian Navy for the entire fleet of 10 vessels and can develop in-country support solutions from an established global sustainment network that includes Australia, South East Asia, the Middle East and the US.

## Availability

Expression of interest.

#### Platform

58 metre aluminium monohull patrol boat<sup>1</sup>
 72 metre military catamaran<sup>2</sup>

# Original equipment manufacturer / through-life support partner

Austal Australia

#### Spares and support equipment available?

- Yes
- Variant
- Cape Class<sup>1</sup> | High Speed Support Vessel 72<sup>2</sup>
- ITAR approval required?
- No

#### Australian Export Control approval required?

Yes

#### Weapon systems

GPMG and/or 0.50 (x2) calibre mounts; other small calibre gun systems may also be installed<sup>1</sup>
 1 x 20mm naval gun and 4 x 12.7mm GPMG<sup>2</sup>

#### Powerplant

 Caterpillar 3516C (x2)<sup>1</sup> | MTU 20V 4000 M93L diesel engines x 4<sup>2</sup>

#### High Speed Support Vessel 72<sup>2</sup>

The HSSV 72 is an all-aluminium, high-speed military catamaran that offers fast, multiple-mission SEA LIFT capability; deploying up to 260 embarked troops (and 69 crew), vehicles and cargo, with medium lift aviation support including a deck for helicopters and/or Unmanned Aerial Vehicles (UAV's).

With a maximum speed of 38 knots and a shallow draft of just 3 metres, the HSSV is an agile, adaptive intra-theatre support vessel ideal for a range of military, search and rescue, humanitarian or disaster relief (HADR) missions.

The HSSV 72's large 900sqm vehicle deck, pivoting roll-on/roll-off stern ramp and large 12 tonne gantry crane enable quick payload transfers in any port and the deployment of Fast Response Craft (FRC's) and other equipment such as Unmanned Underwater Vehicles (UUV's) and/or Unmanned Surface Vessels (USV's). Unlike traditional, single purpose monohull naval vessels, the HSSV can transport more troops, vehicles and equipment, quickly to remote locations, with no or little port infrastructure required.

The HSSV is a technologically advanced vessel platform featuring Austal's proven MARINELINK remote performance monitoring system and 'Ride Control' that enables superior seakeeping in various sea states.

## Availability

Expression of interest.

# Austal Australia

## Armidale Class Patrol Boat<sup>1</sup> | Guardian Class Patrol Boat<sup>2</sup>



## **Product information**

#### Armidale Class Patrol Boat<sup>1</sup>

Since launch in 2005, the Armidale Class Patrol Boat (ACPB) fleet has proven to be an effective, reliable and versatile patrol boat platform, operating with the Royal Australian Navy throughout Australian and international waters.

Based on Austal's proven aluminium monohull patrol boat platform, developed over the past 20 years, the Armidale Class is ideal for a range of border patrol, surveillance and maritime security and support missions; including illegal drugs and people smuggling interdiction, bio-security and environmental monitoring and search and rescue.

The vessel features two fast response craft (FSC) that may be launched off the port and starboard, allowing the quick deployment of crew for interception, boarding operations or rescue missions. Austal supports maintenance, refit and remediation activities for the entire fleet of vessels and can develop in-country support solutions from an established global sustainment network that includes Australia, South East Asia, the Middle East and the USA.

## Availability

Expression of interest.

#### Platform

#### Small Arms<sup>1</sup>

39.5 metre steel monhull patrol boat<sup>2</sup> Original equipment manufacturer / through-life support partner

Austal Australia

#### Spares and support equipment available?

- Available to order
- Variant
- Armidale Class<sup>1</sup> | Guardian Class<sup>2</sup>
- ITAR approval required?
- No
- Australian Export Control approval required?
- Yes
- Weapon systems
- TBC<sup>1</sup>
- GPMG and / or 0.50 calibre mounts<sup>2</sup>
- Powerplant

  TBC<sup>1</sup>
  - Caterpillar 3516C (x2)<sup>2</sup>

#### Guardian Class Patrol Boat<sup>2</sup>

The Guardian Class Patrol Boat (GCPB) is based on Austal's proven patrol boat platform that has seen more than 74 vessels delivered to naval, coast guard and auxiliary services around the world since 1998. The 39.5 metre vessel is a steel monohull with a beam of 8 metres and loaded draft of 2.5 metres. With a top speed of 20 knots the vessel has a range of 3,000 nautical miles (@12knots) and can accommodate 23 people.

The GCPB features a fast response craft (FRC) stern launch and recovery system that allows the deployment of the 6.35 metre long RHIB (ships' boat), underway. Modern plant and equipment such as fuel coalesces, electronic engine control, and commercial, off-the-shelf navigation and communications reduce the cost of operations and sustainment. The GCPB is a cost effective solution ideal for a range of low-level maritime security and support missions, including border patrol and search and rescue.

Austal has designed and is currently constructing 21 GCPB's for 12 Pacific Island nations and Timor Leste under the Commonwealth's Pacific Patrol Boat Replacement Project (SEA3036-1), a key element of the Pacific Maritime Security Program.

## Availability

Expression of interest.



Communications | Design | Engineering | Intelligence, Surveillance & Reconnaissance | Logistics Manufacturing | Research & Development | Test Equipment | Through-Life Support | Training & Education

### **Company Brief**

BAE Systems' advanced defence technology solutions protect people and national security, keeping critical information and infrastructure secure. For more than 65 years we have searched for new ways to provide our customers in Australia with a competitive edge across air, land, sea, cyber, space and electronic domains. BAE Systems provides innovative solutions and critical capabilities that perform optimally in complex environments, ensuring the customer maintains the capability edge required. We employ a skilled workforce of some 4,100 people in more than 40 locations across Australia and work closely with local partners to support economic development by transferring knowledge, skills and technology. Our work helps keep Australia safe and contributes to creating a more prosperous and innovative nation.



#### Mantlet Minature ESM



#### Platform

Air/Land/Sea

Original equipment manufacturer / through-life support partner

- BAE Systems Australia
- Spares and support equipment available?
- Yes
- Variant
- Not applicable
- ITAR approval required?
- No
- Australian Export Control approval required? • Yes
- Weapon systems
- Not applicable
- Powerplant
- Not applicable

### **Product Information**

Mantlet is suited to low altitude, short range engagements as well as long range engagements. It's a Miniature ESM for all platforms requiring high performance operating in high density modern electromagnetic environments. Mantlet detects, identifies and categorises complex emitters, whilst recording data for further analysis. This data can give the foundation of a true sovereign ELINT capability, enabling users to take control of your own EW databases and threat libraries whilst providing the capability to create and tailor library files for sovereign needs.

In its B-J band configuration, Mantlet comprises a single 2.5kg unit comprising of four receivers, and their associated signal processing chains. K band extensions are developed and available when required. The analogue signals are digitised, classified in accordance with the Mission Library and displayed on a dedicated ESM Console, pre-existing aircraft Multi-Function Display, or relayed via tactical data links to remote ground stations.

### Availability

Mantlet<sup>™</sup> is currently in production and subject to a nine month lead time.

#### High Frequency Systems<sup>1</sup> | Cross Domain Solutions<sup>2</sup>



#### **Product information**

#### High Frequency Systems<sup>1</sup>

A family of advanced, off the shelf HF transmitter and receiver building blocks for extremely high performance HF radar, sounder and communications systems. Proven multi-channel digital receiver, waveform generation, frequency management and timing reference sub-systems to support HF systems applications.

BAE Systems can also provide design and integration capabilities to build custom system level HF solutions. BAE Systems is a global leader in the design, build and operation of HF Wide Area Surveillance and HF communications systems.

#### Availability

6-12 months.

#### Platform

#### HF Systems<sup>1</sup>

Communications and data networks<sup>2</sup> Original equipment manufacturer / through-life

#### support partner

- BAE Systems Australia
- Spares and support equipment available?

#### Yes

- Variant
- Multi-channel digital receivers; waveform generators; timing and reference systems; background noise monitoring<sup>1</sup> | Not applicable<sup>2</sup>

#### ITAR approval required?

- No
- Australian Export Control approval required?

#### Yes

- Weapon systems
- Not applicable
- Powerplant
- Not applicable

#### **Cross Domain Solutions<sup>2</sup>**

Cross Domain Solution comprises BAE's Data Diode hardware and associated software. It enables the secure sharing of classified information between segregated networks that typically are operating at different security classifications. It is unrivalled in preventing data leakage and preserving the confidentiality/integrity in highly secure environments. It enables unidirectional transfer of data between segregated source and destination network and prevents reverse data flow thus controlling the risk of threats designed to covertly breach and exfiltrate sensitive data.

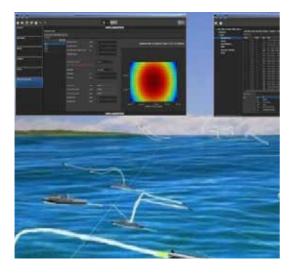
The solution is accredited for use in Defence and intelligence services internationally.

BAE Systems Australia has exported its Cross Domain Solutions to 18 countries, including the USA, Canada, the UK, other NATO members and Singapore.

### Availability

< 3 months.

#### Ship Air Defence Model (SADM)



#### Platform

Operational Analysis
Operational Analysis
Original equipment manufacturer / through-life support partner
BAE Systems Australia
Spares and support equipment available?
Yes
Variant
SADM-AE 6.2.0.04
ITAR approval required?
No
Australian Export Control approval required?
Yes
Weapon systems

- Not applicable
- Powerplant
- Not applicable

SADM is a maritime air defence simulation tool, offering high fidelity operational analysis of Task Group level air and surface warfare engagements. Scientists, engineers, military tacticians and operators are able to collaborate on maximising ship survivability and enhancing mission effectiveness, with SADM providing detailed characterisation of ships, weapons and sensors and their interactions with the Radio Frequency (RF) and physical environments in open ocean and littoral operating areas.

SADM is in service with the navies and research establishments of 13 nations.

### Availability

< 3 months.

#### **Corrosion Prognostic Health Management**



Environmental Degradation Monitoring & Prognostics (EDMAP) is a system that enables condition-based corrosion maintenance. Commonly known as a Corrosion Prognostic Health Management (CPHM) system, EDMAP uses tailored on-board sensors, off-board databases and corrosion prognostics to determine the current and future corrosion status of a platform. This status is referenced to maintenance opportunities to determine inspection deferrals.

EDMAP is the equivalent to corrosion as Health and Usage Monitoring (HUMS) is to usage or fatigue. Together, these two systems manage aircraft structural integrity. This service can also bring clarity and rigour to special servicing, such as those based on saline or hot and humid exposure and wash and rinse scheduling. Corrosion and ED reports are generated.

The logistics system for the global F-35 fleet employs EDMAP technologies for CPHM capabilities.

#### Airborne Test and Evaluation



The BAE Systems Airborne Test and Evaluation (T&E) capability enables civilian and defence customers to develop and prove their products (as pod payloads) in a flexible and cost effective manner.

The capability leverages off standard (20" Diameter Pod and Lightweight Instrumentation Pod) designs which can be cleared for flight off of a customer's aircraft platform (either fixed or rotary wing).

The T&E capability is enabled via a custom designed pod installation pack. The installation pack permits customers to operate their payload both on the ground and in flight. BAE Systems can therefore provide customers with an early "testbed" capability suitable for cost effective implementation of payloads in the initial flight stages of T&E.

A turn-key pod operation can be supplied covering design, manufacture, I&STW and flight clearance to Civil Aviation Safety Authority (CASA) regulations.

#### Future Advanced Threat Simulator (FATS)



The Future Advanced Threat Simulator (FATS) is a third generation Anti-Ship Missile threat simulation product offering Navy customers the ability to trial their ASM countermeasures and overall ship preparedness in peacetime. The core FATS capability is a radar system simulating ASM threats in I, J and K frequency bands. FATS is designed to operate in Laboratory, Clifftop, Flight and HWIL configurations. Transfer between configurations is enabled via common hardware and software blocks.

Software tools permit customers to plan trials and program the FATS to emulate the emissions, and processing of the ASM. Where required, custom algorithms may be employed.

In Flight configuration, FATS requires customer aircraft to have a suitable wing pylon. The FATS equipment is battery powered. Secure wireless links enable communication between operator, pod and ship.

The FATS currently operates as an Active RF ASM emulator. Future phases will implement Passive RF, Passive EO and Dual Mode seekers.

#### Mercury Neo – Defence Formal Messaging



Mercury Neo provides the ADF its core C2 messaging capability. It delivers a web-based user interface which presents a modern look and feel that is similar to commonly available public messaging applications. The product also interacts with "thick client" variants of formal messaging, allowing messaging to be extended to users operating with limited bandwidth (e.g. fleet and deployed units).

Mercury Neo offers a range of advanced features. They include a graphical user interface, attachments to formal messages, rich text message content, receipts and delivery notifications, X509 digital signatures, X500 compliant addressing and enhanced interoperability with allies utilising multiple message format standards.

The product also supports extensive logging and reporting of message activity, routing of messages dependant on message classification, security caveats and a comprehensive management UI. BAE Systems is able to tailor an implementation of the messaging system to meet client needs and can provide through-life product support.

## Boeing



Autonomous Systems | Communications | Engineering | ICT & Cyber | Intelligence, Surveillance & Reconnaissance Research & Development | Space Capabilities | Through-Life Support

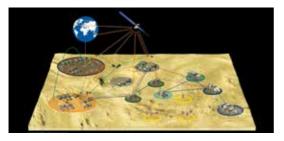
#### **Company Brief**

Boeing Defence Australia is integral to the region's defence industry. We design and deliver advanced communication systems including the Currawong Battlespace Communications System, an agile network for deployed operations and Defence High Frequency Communication System, a world-leading system for critical redundancy.

Boeing designs, develops and sustains integrated mission systems including the Vigilare Battlespace Management System, a command and control system for unparalleled situational awareness, and E-7A Wedgetail, one of the most advanced air battle management capabilities globally.

The company is prime contractor for sustainment on all Boeing-built platforms with a "best of Boeing" approach that optimises reliability, availability and capability.

#### **Currawong Battlespace Communications**



Boeing's next-generation battlespace communications system provides wideband connectivity for deployed military forces over wireless and wired infrastructure. It supports a military's growing need to securely transfer voice, video and data with different security requirements around the battlespace and rearward to operational and strategic headquarters. The Currawong Battlespace Communications System is designed to be interoperable, agile and scalable using a family ruggedised modules and advanced networking capabilities. The Currawong system can interface to a wide variety of telecommunications bearers, including satellite, line of site radio, troposcatter, optical fibre and two-wire copper cable. The fit-for-purpose design also includes the secure use of the Internet for flexible connectivity. This scalability delivers a system designed to evolve with the needs of the modern military.

Designed in collaboration with end-users, it also features a sophisticated Mission System Manager with an intuitive user interface for planning and management of the network.

### Availability

3-6 months.

#### Radio Interface System (RIS)



The RIS is a rugged hardware platform that hosts analogue and digital radio gateways and supports IP networking, routing and Radio over Internet Protocol (RoIP). It provides the flexibility to bridge disparate radio networks together and when used with the Currawong Battlespace Communications System it can extend the range of tactical radio nets through the network.

The RIS hosts a web-interface to enable users to access connected tactical radio nets locally or from anywhere in the Currawong network.

The RIS is designed to integrate with the Currawong Battlespace Communications System, but can be deployed as a standalone device.

#### Availability

3-6 months.

## Boeing

#### Tactical Services Router (TSR)



The TSR is a rugged hardware computing platform that hosts the IP networking, routing, video, voice and data services for deployment communications networks. The TSR uses an industry standard and upgradeable Computer on Module (COMe), with the current model providing a Gen6 Intel Xeon processor and 16GB of RAM. Future TSR models will support the latest Intel Processors.

The TSR provides a wide variety of network ports, including individually controlled Gigabit Ethernet (including PoE), VDSL, analogue voice, USB, HDMI and serial (RS232/RS422) connections. It provides a flexible and highly capable platform for network applications.

The TSR was designed by Boeing in Australia for the Currawong Battlespace Communications System, where it hosted the key routing and network management functions. It can also be used as a standalone device for other network applications.

#### Availability

3-6 months.

#### General Purpose Rugged Server (GPRS)



The GPRS is a ruggedised computing module for secure network domains.

Offering high levels of scalability and flexibility, its modular and upgradeable server architecture can be rapidly configured and deployed into a wide range of harsh mission environments. The GPRS features two Tactical Edge Servers, uninterruptable power supply and network connectivity ports.

Designed for use in harsh military environments, the GPRS provides the compute and storage capacity required to host a range of military Local Area Networks (LANs) without compromising size, weight and power (SWaP) or survivability.

#### Availability

3-6 months.

#### Tactical Edge Server (TES)



The TES is a passively cooled, ruggedised computing platform that brings server class performance and storage to the battlefield allowing de-centralised "Edge" computing. The TES uses an industry standard and upgradeable Computer on Module (COMe), with the current model providing a Gen6 Intel Xeon processor, 48GB of RAM and two configurable solid state drives for storage. Future TES models will support the latest Intel Processors.

Designed for use in harsh military environments, the TES optimises compute capacity without compromising size, weight and power (SWaP). Multiple TES modules may be connected via 10Gbps network to scale for higher capacity requirements.

The TES was designed by Boeing in Australia for future releases of the Currawong Battlespace Communication System, but can be deployed as a standalone device.

#### Availability

3-6 months.

#### Network Access Module (NAM)



The Network Access Module (NAM) is the core capability brick of a battlespace communications system. The NAM consists of ruggedised equipment including a Tactical Services Router, uninterrupted power supply, distribution modules to enable network routing, switching, voice, video and data capabilities. Designed in collaboration with end-users, it can also host a sophisticated Mission System Manager with an intuitive user interface for planning and management of battlespace communications networks.

Designed for use in harsh military environments, the NAM provides a scalable solution that can support deployed nodes of different sizes. Its flexible architecture can be upgraded to meet the future communication needs of deployed forces.

Delivered to the Australian Defence Force as Currawong – the NAM has been designed, developed and built by Boeing in Australia for varied and demanding operating conditions.

#### Availability

3-6 months.

## L3Harris – C4i



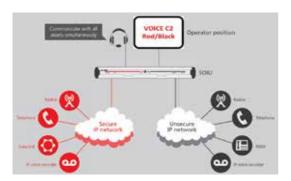
Design | Communications | Engineering | Manufacturing | Research & Development | Through-Life Support

#### **Company Brief**

L3Harris Technologies is an agile global aerospace and defence technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defence and commercial technologies across air, land, sea, space and cyber domains. L3Harris has approximately US\$17 billion in annual revenue and 50,000 employees, with customers in 130 countries.

Our business is newly segmented into the following 4 categories: Integrated Mission Systems, Aviation Systems, Space & Airborne Systems and Communication Systems. Harris C4i Pty Ltd, a subsidiary of L3Harris, is an Australian Voice Communications Systems OEM and system integrator.

#### **VOICE C2 RED/BLACK**



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required? • No

### **Product Information**

VOICE C2 Red/Black voice communication system (VCS) which provides air defence operators with nationwide access to all assets, including simultaneous access to multiple security domains (secure/non-secure) via a single headset and touchscreen. It provides conferencing and communication with air-to-ground and ground-ground assets such as fixed telecommunications, mobile devices, and radios.

The isolation of secure and non-secure voice and data communications is achieved through streamlined switching equipment, tested to the TEMPEST requirements of NSTISSAM 2/95.

### Availability

< 3 months.

## L3Harris – Micreo



Design | Electronic Warfare | Engineering | Intelligence, Surveillance & Reconnaissance | Manufacturing | Optical Research & Development | Through-Life Support

#### **Company Brief**

L3Harris – Micreo leads the way in electronic warfare in Australia. As a trusted supplier to Defence and global defence primes, we are the partner of choice for leading-edge sovereign capability in R&D, engineering, manufacturing, supply chain management and sustainment.

Specialising in the electromagnetic spectrum, we provide advanced, high-reliability systems to detect, guide and protect in extreme and hostile environments, delivering successful mission outcomes in all domains.

Based in Brisbane, we have the specialist skills and facilities to produce equipment to customers' specifications for all platforms, enabling defence organisations to fulfil government contracts with robust and reliable Australian Industry Capability components.



#### Contract manufacture and sustainment of military-grade electronics

#### Service Information

L3Harris – Micreo can manage the manufacture of your military-grade electronics from specification to development, through to full-rate production in low or high volumes. With over 15 years' experience managing complex and high risk technical projects, they can support you with engineering assistance and full project management services including production planning, component procurement, scheduling, subcontract management, environmental qualification testing, sustainment, and complex logistics coordination.

The company has an exemplary performance record for delivery and quality performance in the demanding technical field of military and aerospace-grade electronics.

### Availability

< 3 months.

## Luerssen Australia Pty Ltd



Manufacturing | Ship Building | Through-Life Support

#### **Company Brief**

Luerssen Australia Pty Ltd is the prime contractor building 12 Offshore Patrol Vessels for the royal Australian Navy. Backed by the Luerssen experience of more than 140 years in ship design and construction, Luerssen Australia Pty Ltd can offer naval vessel designs and vessels built in Australia for customers throughout the Pacific, Middle East and South East Asia.

#### Offshore Patrol Vessel - OPV 80



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

Yes

#### **Product Information**

A capable Offshore Patrol Vessel, based on a mature design and proven in-service capabilities. Constructed in Australia with Luerssen Australia providing the design, management and project supervision.

The Luerssen Australia OPV 80 provides tailored performance and mission equipment. Mission deck and Landing deck allow for flexible fit of further systems and modular mission equipment.

### Availability

> 12 months. Custom design and production. Designed and manufactured to order.

## Northrop Grumman



Artificial Intelligence | Autonomous Systems | Communications | Electronic Warfare | Engineering | ICT & Cyber Medical | Space Capabilities | Weapons & Ammunition

#### **Company Brief**

Over the last seven years, Northrop Grumman Australia has successfully supplied and supported deployable secure communications equipment to the Australian Defence Force, government agencies, and overseas militaries.

These capabilities are Australian designed and developed. From initial requirements analysis for a deployed network through to delivery and ongoing support, NGA is a trusted provider of secure communications solutions to customers in critical operational circumstances.

#### Secure Communications Solution family (SCS-100 and SCS-200)



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• Yes

#### **Product Information**

Northrop Grumman Australia's Secure Communications System (SCS) family provides secure access for either an individual user (SCS-100) or a small team (SCS-200) to their enterprise network, when and where it is needed. Designed with the end user in mind, the SCS family provides flexible, lightweight and integrated devices that allow simultaneous access to multiple secure networks.

Featuring intuitive touchscreen displays and pre-saved settings, it is easy for an individual or team to operate in a variety of demanding deployment scenarios. Simultaneous connections can be established via Cellular, Wi-Fi (client and hotspot), Satellite, Ethernet, ADSL and USB Tether, and be configured to automatically select the most cost-effective or best-performing option. Using public or private IP networks, the user can safely access networks from highly classified to unclassified.

### Availability

< 3 months.

### SAAB Australia



Communications | Design | Engineering | Intelligence, Surveillance & Reconnaissance | Manufacturing Research & Development | Test Equipment | Through-Life Support | Training & Education

#### **Company Brief**

Based in Adelaide, Saab Australia is the Defence, Security and Traffic Management solutions provider specialising in computer based command and control systems.

Employing over 500 Australians, the company is one of the country's most respected defence and security system integrators. It is leading research and development for Australia's future combat power and rolling out technology to protect Australia's critical infrastructure to keep its people and society safe. For over thirty years, Saab Australia has developed and integrated technology to protect and empower Australia's Navy, Army and Air Force.





#### 9LV Combat Management System



The system provides situational awareness and decision superiority for all classes of warship from large aircraft carriers through destroyers, frigates, submarines and patrol vessels. It is an open architecture system which is scalable across all these platform types providing full integration, correlation, threat processing and engagement through integration with customer selected sensors and weapons.

#### Platform

Warships

Original equipment manufacturer / through-life support partner

SAAB Australia Pty Ltd

Spares and support equipment available?

- Yes
- Variant
- Tactical Interface, Combat Management System and Fire Control System Versions

#### ITAR approval required?

- Not Applicable
- Australian Export Control approval required?
- Yes
- Weapon systems
- Not applicable

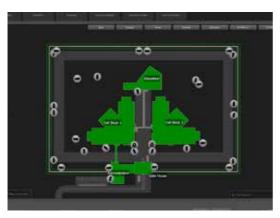
#### Powerplant

Not applicable

#### Availability

Expression of interest.

### OneView



OneView is an intelligent security surveillance and facility management system that brings all facility security applications and devices into one single operator view.

OneView provides the complete security and surveillance picture in real time as it happens allowing the user to resolve situations as they happen.

OneView is a physical security information management system that actions security events automatically on command.

#### Platform

Defence bases

Original equipment manufacturer / through-life support partner

- SAAB Australia Pty Ltd
- Spares and support equipment available?

• Yes

Variant

- Base and Major Infrastructure Integrated Security
- ITAR approval required?
- Not Applicable

Australian Export Control approval required?

- Yes
- Weapon systemsNot applicable
- Powerplant

#### Powerplan

Not applicable

#### Availability

Expression of interest.

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## Supacat



Design | Engineering | Manufacturing | Research & Development | Through-Life Support | Vehicles & Accessories

#### **Company Brief**

Supacat is an innovative engineering company specializing in high mobility all-terrain vehicles and complimentary products and services for the defence market with offices in the UK and Australia.

#### High Mobility Transporter (HMT)



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

Yes

#### **Product Information**

Developed for use by Special Forces, the HMT Extenda MK II continues to provide unmatched mobility and flexibility for broad ranging tactical, reconnaissance and support operations. The HMT, easily converted between 4x4 and 6x6 operation, can be fitted with mine blast and ballistic protection kit and a variety of mission hampers, weapons, communications, ISTAR and force protection equipment to suit an array of operational roles.

In service for over 10 years, the HMT base vehicle has been adapted in various configurations for many specialist roles with over 600 now in service worldwide.

### Availability

6-12 months. Custom design and production. Designed and manufactured to order.



Autonomous Systems | Communications | Design | Engineering | ICT & Cyber Intelligence, Surveillance & Reconnaissance | Manufacturing | Optical | Research & Development | Robotics Space Capabilities | Through-Life Support | Training & Education | Vehicles & Accessories Weapons & Ammunition | Artificial Intelligence

### **Company Brief**

Thales Australia traces its origins back to the 1890s and is a premier provider of systems, products and services in both commercial and defence areas. Our expertise ranges across protected mobility vehicles and integrated communications solutions for defence through to security solutions and systems integration for the commercial sector.

Thales is also one of Australia's leaders in research and development with strong affiliations with the Defence Science and Technology Organisation (DSTO) and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and leading tertiary institutions.

Thales is a trusted business partner of the Australian Defence Force and has a rapidly growing civil business, ranging from world-class air traffic management systems to advanced civil security technologies.

The company's wide-ranging capabilities across the aerospace, defence, transport and security sectors are recognised by customers who not only require superior equipment, but the systems integration, prime contracting and through life support expertise that boost their competitive edge. Thales has access to local skills and resources, and a global reach to a parent company with vast international capabilities.



#### Hawkei Protected Mobility Vehicle



The Hawkei represents the next generation in Protected Tactical Vehicles. It is designed and produced by Thales Australia, and built on the pedigree of the mission-proven Thales Bushmaster.

Hawkei is a 7-tonne, 4x4 highly mobile protected tactical vehicle that is helicopter air transportable. Hawkei meets customers' complex operational challenges with the optimal balance of protection, mobility and utility and is designed with scope for growth and flexibility across a range of missions.

Roles include:

- Troop movement
- Command and control
- Electronic warfare
- Liaison
- Surveillance
- Reconnaissance.

#### F90 Automatic Rifle Family



### **Technical Specifications**

	Calibre	Weight	Barrel length Overall length	
F90	5.56 mm	3.25 kg	407 mm	700 mm
F90M	5.56 mm	3.39 kg	508 mm	802 mm
F90CQB	5.56 mm	3.15 kg	360 mm	653 mm

#### F90 Automatic Rifle Family

- F90
- F90M (Marksman)
- F90 CQB (Close Quarter Combat)

The F90 is a military rifle designed to perform in the world's toughest environments. The F90 delivers accuracy, reliability and adaptability for the modern war fighter.

The F90 is one of the lightest assault rifles on the market at 3.25 kg, enabling fast reaction times and rapid target acquisition, a clear advantage in close quarters combat. NATO standard rails and NATO ammunition interoperability provide adaptability for a wide range of mission profiles. New in 2017 was the option to use NATO magazines and a SIMUNITION adapter is also available for Force on Force training.

The F90 includes an integrated side loading 40 mm grenade launcher that can be attached in just a few seconds by the soldier – a potentially decisive capability providing flexibility on operations. The grenade launcher itself is equipped with a lightweight robust quadrant sight that ensures rapid target acquisition, can be used at night, and is compatible with night vision goggles.

#### **Small Arms Ammunition and Components**



#### Products include:

5.56 mm F1A1 Ball (SS109 type), 5.56 mm F3 Blank (long nose), 5.56 mm F193 (M193 type), 7.62 mm F4 Ball (M80 type), .50 cal F1 Ball (M33 type), .50 cal F3 Blank, 300 Blackout Ball (Various), 7.62 F62 Tracer (M62 type), 5.56 mm Special Purpose 5.56 mm Training rounds including lead free. The Commonwealth facility at Benalla in Victoria produces 5.56mm, 7.62mm and .50 calibre ammunition to NATO STANAG requirements. The ammunition can be used in all 5.56 x 45mm, 7.62 x 51mm and .50 calibre x 99mm NATO weapons. They also produce .300 Blackout ammunition to military requirements as well as ammunition components including projectiles and cases.

Ammunition employs world leading single base propellants with very low temperature coefficient of ballistics to ensure velocities and pressures remain consistent across variations in temperature (-54 C to + 80 C). The ammunition can be packed in a variety of configurations including charger clip, loose and linked as well as shipped in a variety of pack configurations.

#### Small Arms Ammunition Components

- 5.56 mm
- 7.62 mm
- .50 cal
- 300 Blackout.

#### Large Calibre Ammunition and Components



#### **Products include:**

- 81mm Mortar components
- 105mm components
- 4.5" Naval components
- 5"/ 54 Naval components
- Manufacture of Forged Steel Projectile Bodies
- Large Calibre Case Manufacture
- Large Calibre Primer Manufacture.

The Commonwealth facility at Benalla in Victoria produces a range of large calibre ammunition components including cases, primers and projectiles for 81mm Mortar, 105mm Howitzer, 4.5" Naval and 5"/54 Naval.

The facility has an extensive capability and capacity for the manufacture of large calibre ammunition components to stringent military requirements. Component designs can be tailored to suit specific customer requirements and needs with the ability to match unique customer demands.

#### **Bushmaster PMV**



#### **Bushmaster family of Protected Vehicles**

The Bushmaster is manufactured at the Thales facility in Bendigo Victoria. Bushmaster is a highly mobile, ballistic, mine and improvised explosive device (IED) resistant Protected Mobility Vehicle delivering a high level of crew and passenger protection and survivability.

Operated by the Australian Army and Royal Australian Air Force (RAAF) Airfield Defence Guards, the bushmaster family of modular armoured vehicles offers high levels of protected mobility for combat, combat support and combat service support troops across a diverse range of mission profiles including:

- Troop Carrier and Patrol
- Command and Control
- Fire Support
- Mortar
- Ambulance
- Surveillance
- Counter-IED Engineer
- Electronic Warfare.

Bushmaster is in services with six armies including Australia.

#### Australian Minesweeping System



Thales Australia's Australian Minesweeping System was developed with the assistance of the Australian Defence Science & Technology Organisation (DSTO) and the Royal Australian Navy.

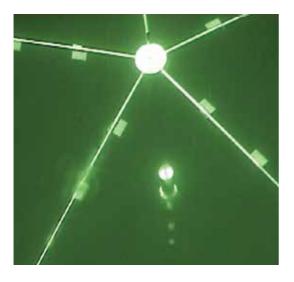
Produced at Thales's Centre of Excellence in Rydalamere, Sydney, AMAS is a proven capability deployed across 11 navies, the AMAS solution comprises a magnetic, acoustic and electric multi-influence sweep; a mine jammer for time limited missions; a sweep tracker monitor system; mission planning support system software; an ECDIS based minesweeping navigation and control system; and a range of integrated logistics support products and services including deployment containers and training.

AMAS provides a naval force with the capability to detonate hostile sea mines designed to target naval and commercial shipping.

Benefits of the AMAS:

- Clip-on influence minesweeping system
- No external power required
- Low maintenance costs
- High reliability and availability
- Low risk proven technology.

#### Rassputin Monostatic Sonobuoy (RMS)



The RASSPUTIN Monostatic Sonobuoy (RMS) is the latest in the line of Thales Australia's advanced sonobuoy products designed to enhance the Anti Submarine Warfare (ASW) capability of a naval task group.

Combining into a standard A size sonobuoy container the proven active elements of the RASSPUTIN Sonobuoy product with the passive capability of the Barra Buoy, Thales has created a true force multiplier optimised for shallow littoral employment against a submarine threat.

The RMS Buoy can be employed to form a conventional active/passive sonobuoy search, or be fully integrated into an advanced ASW multistatic operation.

#### Maritime Tactical Wide Area Network (MTWAN)



The Maritime Tactical Wide Area Network (MTWAN), produced by Thales Australia, is a hardware and software solution based on open standards delivering safe and secure ship-to-ship and shipto-shore information transfer in a tactical high pressure environment.

The simplified management environment relieves ship and shore operational staff from the complexity of managing dynamic configurations needed to adapt to the mission profile – giving them more time to focus on their key mission needs.

The MTWAN capability is low risk as it has been engineered for, and proven on board, all major Royal Australian Navy (RAN) vessels.

Currently in service with the RAN, MTWAN can be applied across the Patrol, Frigate, Destroyer and Carrier fleets as well as ashore.

#### Other Products Offered by Thales Australia

Fibre Optic Towed Array | Smokeless Propellant

## **Advanced Navigation**



Autonomous Systems | Research & Development | Robotics | Space Capabilities | Weapons & Ammunition

#### **Company Brief**

Advanced Navigation builds high quality navigation solutions for both defence and commercial markets. Our products are developed and manufactured in Australia and are designed to deliver critical navigation information across sea, land and air platforms including surface, subsea assets, ground vehicles, and unmanned aerial vehicle applications.

Our team has world class expertise in the fields of inertial navigation; global navigation satellite systems, sensors and acoustics; artificial intelligence; and RF technologies.

#### Spatial FOG Dual



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• Yes

#### **Product Information**

Spatial FOG Dual is a ruggedised dual-antenna GPS aided inertial navigation system that provides accurate position, velocity, acceleration and orientation under the most demanding conditions. The inbuilt Fibre Optic Gyroscope allows Spatial FOG to provide extremely precise orientation and positioning information in the sustained GPS-denial environments often encountered in the battlefield.

#### Availability

< 3 months.

## Aero Medical Engineering



Design | Engineering | Logistics | Manufacturing | Medical | Through-Life Support

#### **Company Brief**

Aero Medical Engineering has grown from the vision of medical service providers seeking systems that support patient health, integrate effectively with military and civilian aircraft, and protect carers form the burdens of heavy lifting. With our in-house experience in aircraft and aligned systems ownership we have taken on the challenge of delivering an engineering, manufacturing and support capability that leads the industry.

#### Aero Medical Retrieval Stretcher System



#### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

#### **Product Information**

The Retrieval Stretcher System is designed to enable rapid and seamless transport of injured patients from field to hospital. The system consists of the stretcher which is designed to meet contemporary FAR structural performance and be very light, a clinical equipment bridge designed to readily integrate changing clinical equipment in support of high dependency patients, medical base designed to provide oxygen and power, and military aircraft racking and adapters designed to enable easy integration with any aircraft, and most vehicles and ships designed to carry conventional military canvas stretchers.

#### Availability

3-6 months. Custom design and production. Designed and manufactured to order.

## Aerospace & Mechanical Consulting Engineers



Communications | Design | Engineering | Manufacturing | Research & Development | Through-Life Support

#### **Company Brief**

Aerospace & Mechanical Consulting Engineers, trading as AMCE, is a professional engineering consultancy in the defence and aerospace sectors, providing engineering design, analysis and certification services to the Australian Defence Forces for over 20 years.

Using innovation and best practice, they deliver design solutions involving new capabilities, as well as running systems support, for fixed wing and rotary wing aircraft. AMCE also supplies products designed by the company, manufactured under subcontract, however, AMCE's core business is engineering design, analysis and certification.

#### C-130 Paratroop Door Negator Spring Upgrade



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• No

### **Product Information**

The AMCE Negator Spring Upgrade reduces Loadmaster back injury incidents, by significantly reducing the physical effort involved in opening the paratroop door. The system provides greater assistance by incorporating a spring with increased stiffness. This enables one-man door operations. Three variants are available: standard lift assist, 50% additional lift assist and double lift assist.

The Negator Spring Upgrade, combined with its specially designed removal/installation tool, enables maintainers to carry out safe and easy installation and removal of the Negator Spring. It allows a single maintainer to wind or unwind the Negator Spring safely without assistance and reduces the time to change a Negator Spring. The Negator Spring Upgrade is certified to both FAR Part 25 and the aircraft certification baseline. In service with the RAAF C-130J aircraft since 2012, it is highly praised as a significant improvement in workplace safety, paratroop door operations and maintenance practice.

AMCE also design and build other platforms including C130 Underfloor Armour, MRH90 Pyrotechnics and Heliraft Stowage systems and C130 Observer Platform Assembly and Ventilation systems. Further information can be found on their website.

### Availability

< 3 months. Custom design and production. Designed and manufactured to order.

## **AFL Telecommunications**



Communications

#### **Company Brief**

AFL Telecommunications manufacture, design and integrate fibre optic and copper communication solutions.

With a rich history in the fibre optic industry and an ever-growing global footprint, AFL not only exceeds expectations, but raises them. Our mission is to connect our customers around the world with innovative technologies, exceptional products and high quality services. Whether you need to build a network, upgrade your broadband system, expand a central office or connect a campus through fibre optics, AFL connects you with the solutions that fit your every need.

#### SideWinder Rapid Cable Deployment System



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

#### **Product Information**

Our SideWinder Rapid Cable Deployment System allows for fast deployment and retrieval of tactical fibre optic cables used in field deployment applications. The system is made using lightweight high impact polymer that is non-corrosive and able to withstand extreme temperatures. Additionally, the reel features built-in connector storage in the centre hub, as well as a folding handle for fast sidewinding action. The unique design of the reel allows them to be stacked and locked together for transport or for field deployment. The specially engineered foam insert within the hub allows safe storage of the connectors when not in use. The reel is available in 4 sizes, to store cables up to 1000mts in length (when using 5.5 mm cable). They can also be supplied with reel stands, connector cleaning kits and military approved transit cases.

#### Availability

<3 months. Designed and manufactured to order.

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## Allied Data Systems



Autonomous Systems | Design | Engineering | Manufacturing | Medical | Research & Development | Test Equipment

#### **Company Brief**

Allied Data Systems develops embedded computing systems for military, mining and industrial customers. Products include rugged Network Attached Storage, Doppler Velocity Logs, Underwater Telephones, MIL-STD-1553 data bus equipment, synchro and resolver conversion systems.

#### Model 3045 Doppler Velocity Log



#### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?
• Yes

#### **Product Information**

The Model 3045 Doppler Velocity Log is the latest in the series of Doppler logs for measuring speed in both surface and underwater vehicles including ships, submarines and autonomous vehicles. The Model 3045 uses the proven phased array technology from earlier models that provides the highest accuracy for any Doppler system.

The Model 3045 is militarised and complies with MIL-STD-461 and MIL-STD-810. The Model 3045 and remote terminals provide large 12.1 inch graphical display of ships speed, bottom depth and heading along with data recording capabilities that allow it to be used as a data logger. Additionally, the Model 3045 is able to provide current profiling for hydrographic surveying requirements.

#### Availability

6-12 months. Custom design and production. Designed and manufactured to order.





Communications | Design | Electronic Warfare | Engineering | Field equipment | ICT & Cyber Intelligence, Surveillance & Reconnaissance | Ship Building | Space Capabilities

#### **Company Brief**

archTIS is an Australian ICT company that specialises in the design and development of products, solutions and services for classified information sharing and collaboration.

Established in 2006, archTIS designed and built an information sharing platform for the Australian Department of Defence to host US and Australian sensitive security information (accredited by the United States and Australian Departments of Defence).

This platform, now in its fourth generation, enables the secure sharing of sensitive information and allows for multiple recipients to automatically access different versions of a document in line with their respective security clearances, using Attribute Based Access Control.

#### Kojensi - Classified Content and Collaboration Platform



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?
No

#### **Product Information**

Kojensi is a Multi-Level Security (MLS) content and collaboration platform built to comply with the information sharing and collaboration needs of Defence and Defence industry, government and intelligence agencies.

Kojensi enables organisations to share, grant or revoke access to information based on personal attributes such as security clearance, nationality, data classification, organisation, and more. The platform has a full enterprise content management capability combined with collaboration tools including an integrated office compatible suite, real-time collaboration, tasking, workflows and chat functionality.

The Kojensi platform is available as an on premise solution (Kojensi Enterprise) for information up to top level government security classifications, or a cloud service (Kojensi Gov) for classified information. Kojensi can also be deployed in a self-contained hardened and ruggedised server (Kojensi Field), allowing a field capability for classified collaboration.

### Availability

> 12 months. Custom design and production. Designed and manufactured to order.

## Aspire Wellness



Combat Clothing

#### **Company Brief**

ASPIRE is an Australian technical apparel company specialising in the design and development of garments to improve athlete and soldier performance, endurance, spinal health and recovery.

Aspire garments are designed to deliver physiological benefits to soldiers and to be worn as a base layer under soldiers uniforms while they train, perform or recover.

The technical fabrics used to create our garments are Australian made and have technology designed to increase blood flow and improve muscle performance.

#### SpineSuit



Spares and Support Equipment Available? • Yes

Australian Export Control Approval Required?

• No

#### **Product Information**

The SpineSuit is our core product and specifically designed to improve the posture of soldiers and reduce back injury rates related to poor posture and carrying heavy backpacks over long distances.

The technical fabrics used to create the SpineSuit have been approved by Australian Defence Department's Capability Acquisition and Sustainment Group.

SpineSuit features include:

- Spine support straps that help create optimal spinal curves, reducing wear and tear on the vertebrae joints as well as reducing rates of injury and improving overall performance.
- Compression technology to increase blood flow to improve muscle performance and endurance, helping to reduce fatigue and injury rates.
- High wicking rates that help keep soldiers dry and cool which can also help to reduce heat signatures.
- Antimicrobial technical fibres that help to reduce odour and the spread of potential infections.

#### Availability

3-6 months. Custom design and production. Designed and manufactured to order.

# Australian Pump Industries Aussie Pumps



Ship Building | Through-Life Support

#### **Company Brief**

Australian Pump Industries is a wholly Australian owned company operating from a 2 1/2 acre factory facility in Sydney's Northwest business region. We are both a commercial pump manufacturer and a major support for Defence, with particular emphasis on navy pumps, valves and other key mission critical equipment including power converters. The Sea Skipper is a wholly Australian initiative designed to provide lightweight portable fire and salvage capabilities on board Royal Australian Navy vessels.

#### Aussie Sea Skipper



#### Spares and Support Equipment Available? • Yes

Australian Export Control Approval Required?

No

#### **Product Information**

Lightweight portable diesel engine-drive sea water pumps, suitable for firefighting and salvage at sea. Our products are unique and are an extension of the Aussie Seamaster range currently being used by Armidale, Huonclass Minehunter and ANZAC class navy vessels.

#### Availability

< 3 months. Custom design and production. Designed and manufactured to order.

## Australian Defence Apparel



Design | Engineering | Logistics | Manufacturing | Through-Life Support

#### **Company Brief**

Australian Defence Apparel (ADA) is a leading provider of high grade bespoke uniforms, tactical body armour systems and ceremonial dress to Australian Defence and Law Enforcement agencies. ADA is a prime vendor to the Australian Defence Department's Capability Acquisition and Sustainment Group and are committed to continuously innovate reliable, quality products that perform to world class standards.

ADA prides itself on delivering complete system solutions through engineering, manufacturing and integrated logistics support enabling their partners to enhance, optimise and sustain their operational capability.

#### Tiered Body Armour System (TBAS) Version 5



Spares and Support Equipment Available?
• Yes

Australian Export Control Approval Required?

• No

### **Product Information**

The Tiered Body Armour System (TBAS) has now entered its fifth version since its introduction into service in 2010. TBAS was first developed by ADA and Diggerworks, in response to the operational transition from Iraq to Afghanistan forcing the body armour system to evolve – reducing weight and increasing user mobility. TBAS V5 was rolled out to Special Operations Command early 2018 and has already received extremely positive reviews from the Special Forces community.

A survey concluded the TBAS V5 system was preferred over any off-the-shelf solution in the marketplace. The TBAS V5 was designed in consultation with representatives from the Australian Special Forces and further developed after a limited user trial. The TBAS system is designed to be ultralight, low profile, modular, scalable, ergonomic and versatile.

#### Availability

< 3 months. Custom design and production. Designed and manufactured to order.

## AVT Australia



Artificial Intelligence | Intelligence, Surveillance & Reconnaissance | Optical | Counter UAS (CUAS)

#### **Company Brief**

AVT Australia specialises in gyro-stabilised imaging systems, fully integrated solutions and innovative software for ISR (intelligence, surveillance and reconnaissance), target acquisition, air defence and counter drone operations for the defence, aerospace and unmanned systems industries.

AVT Australia's pioneering systems are supporting airborne, ground and maritime missions around the world, with systems fielded in over 50 countries. AVT Australia has become a leader in various disciplines, including counter drone technology, aerial firefighting sensors and surveillance systems, and offers custom innovations as well as a range of field proven solutions.

#### CM262



### Spares and Support Equipment Available? • Yes

Australian Export Control Approval Required?

### **Product Information**

The CM262 is a multi sensor, gyro-stabilised imaging system that combines the most advanced imagery and stabilisation technologies in a 12kg system. Four sensor configurations (high definition daylight, high definition mid-wave infrared, SWIR and a 10km laser range finder) facilitates accurate detection, recognition and identification from long and short ranges for optimum situational awareness.

For counter UAS missions on-the-move, the CM262 can be integrated into AVT Australia's revolutionary fully integrated counter UAS system, the X-MADIS (eXpeditionary Mobile Air Defence Integrated System), which delivers an intuitive and reliable soft-kill solution to combat the growing threat of hostile UASs, and near-peer air threats. The CM262 is enhanced with AVT Australia's next generation video processor to deliver improved stabilisation and software enrichments. The CM262 offers the highest performance for a system of its size, weight and power, providing a man-portable, multi-mission solution for ground and maritime ISR operations.

### Availability

3-6 months. Custom design and production. Designed and manufactured to order.

## **BAC Systems**



Manufacturing | Industrial storage for defence assets | Industrial workshop benches

#### **Company Brief**

BAC Systems is an Australian manufacturer of industrial drawer storage cabinets for Defence asset storage, used in nearly all Australian Defence Force (ADF) facilities. BAC also manufactures industrial modular workbenches, which are also used by the ADF.

### **BAC Flightline Toolboard**



#### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

#### **Product Information**

The BAC Flightline Toolboard is a mobile tool display storage system, with up to 7.4 square metres of perforated steel pegboard, complete with accessories. The unit comes with heavy-duty transparent roller doors for security that allows full vision of the toolboard behind. Designed in consultation with the Royal Australian Air Force, but now used widely across the ADF, the BAC Flightline Toolboard range is unrivalled for strength or storage capacity.

### Availability

< 3 months. Custom design and production. Designed and manufactured to order.

## **Bale Defence**



Design | Engineering | Field Equipment | Manufacturing | Research & Development | Ship Building Through-Life Support | Training & Education | Vehicles & Accessories

#### **Company Brief**

Bale Defence specialise in the design, manufacture and sustainment of military equipment and defence-related products. The company also serves as a repairer and supply chain manager, locating, supplying and maintaining a comprehensive range of vital spares and equipment.

Bale has a diverse range of products and services including a range of Special Operations vehicles and watercraft, various urban and maritime assault systems, weapon storage systems, 20-foot equivalent unit containerised armouries and EO magazines, naval shock and vibration certified ready use lockers, watertight doors and hatches. These products and services are backed up with extensive logistical support.

#### **Rough Terrain Family of Vehicles**



#### Spares and Support Equipment Available? Yes

Australian Export Control Approval Required? No

### **Product Information**

Rough Terrain Vehicle - Family of Vehicles (RTV-FOV). The RTV-FOV are light, tactical, off-road vehicles provided as a reconfigurable platform capable of securely carrying up to four crew, individual weapons and equipment. The vehicles also include large adaptable payload areas capable of safely and securely transporting weapons and explosive ordnance as additional payload.

The RTV-FOV are available in diesel and petrol engine variants and are designed for prolonged periods of off-pavement use in complex terrain.

Also offered is the Outboard Motor Transom Adapter for powered tactical craft, designed to enhance the capability of rapidly deployable Inflatable Boat Platforms. Please refer to the company website for further information.

### Availability

3-6 months. Custom design and production. Designed and manufactured to order.

### **Barrett Communications**



Communications | Field Equipment | Manufacturing

#### **Company Brief**

Established in 1976, with the Head Office and factory in Western Australia, Barrett Communications design and manufacture HF and Low Band VHF radio equipment for supply to military, government, critical infrastructure, Non-Governmental Organisations and peacekeeping organisations.

Barrett's business model allows the agility to provide customised solutions to our end users whilst also providing large scale communications solutions to support the modernisation programs of military forces.

Barrett has customers in over 150 countries globally, in key markets including Asia, the Middle East, Africa, South America and North America.

#### Barrett PRC-4090 Tactical HF SDR



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

Yes

#### **Product Information**

The Barrett PRC-4090 tactical HF Software Defined Radio (SDR), is the lightest military grade HF transceiver on the market. At only 2.95kg, multiple battery options offer a gross operational weight from 3.95kg to 5.0kg.

The PRC-4090 is a multi-configured system offering man-pack, mobile and base station configurations with selectable power outputs of 10, 30, 125 and 150 Watts. With a current consumption of only 250mA, the operation time is significantly extended to up to 64 hrs in RX and up to 21 hours RX/TX at 90/10 duty cycle.

In addition to offering multiple languages and IP network connectivity, the Software Defined architecture provides complete software control of RF modulation and bandwidths, providing unprecedented flexibility and reliability with ease of upgrade.

While being the most advanced fully software-defined transceiver, the PRC-4090 remains true to the Barrett ethos of designing transceivers that provide intuitive ease of use.

Also offered is the Barrett PRC-2080+, a tactical low band VHF transceiver which is designed for multi-role military and security applications. Please refer to the company website for further information.

### Availability

< 3 months. Custom design and production. Designed and manufactured to order.

## **Berkeley Information Technology**



Engineering | ICT & Cyber | Through-Life Support

#### **Company Brief**

Berkeley are leaders in defensive cyber operations, data classification and loss prevention, and insider threat protection. They develop and deliver the most secure content management, information fusion, collaboration and search solutions to government and military. Berkeley's enterprise scale, secure information management solutions have been deployed and integrated across a number of high security installations and military operations.

Berkeley's solutions are designed to make it easier to access and share information between applications, dissimilarly classified networks, strategic and deployed systems, government departments and coalition partners. Embedded security metadata in Berkeley's solutions creates the balance between the "need-to-know" and the "need-to-share".



#### Enterprise Security Services Platform (ESSP) for SharePoint

Spares and Support Equipment Available? • Yes

Australian Export Control Approval Required?
No

#### **Product Information**

Berkeley's Enterprise Security Services Platform (ESSP) for Microsoft SharePoint is a patented information security technology that enables military, government agencies and enterprises to label, classify and enforce security metadata to information assets in real-time. Through a user-friendly, yet robust security metadata framework, ESSP determines the classification level of information and an individual's ability to discover, access, change, delete and receive or forward the information, based on an individual's credentials.

ESSP enables organisations to protect and secure digital assets, collaborate securely, mitigate insider threats and comply with information security and regulatory standards. ESSP delivers a life-cycle information security architecture that is scalable and enables organisations to strike the balance between ubiquitous information access and the protection of sensitive information.

ESSP reduces risk by enabling administrators and content creators to instantaneously add and remove individuals and their respective access rights to information, when role and organisational changes occur.

### Availability

< 3 months. Custom design and production.

## Birdon



Autonomous Systems | Design | Engineering | Field Equipment | Humanitarian | Logistics | Manufacturing Ship Building | Vehicles & Accessories

#### **Company Brief**

Birdon is a proud and successful family-owned business providing innovative solutions to the military and marine industries since 1977. Birdon has operations in Australia, the USA, Europe and throughout Asia. We maintain a reputation for being an efficient, responsible and highly responsive contractor. We achieve a high rate of return clientele through strict adherence to health, safety, environment and quality standards and a commitment to working closely with customers on schedule and cost.

Birdon is dedicated to industry leadership across each of our business divisions: Marine, Engineering, Dredging, Disposals and Shipping.

#### Bridge Erection Propulsion Boat (BEPB)



#### Spares and Support Equipment Available?

• Yes

#### Australian Export Control Approval Required?

Yes

#### **Product Information**

The BEPB is currently in use worldwide for the construction, operation and dismantling of wet gap crossings. Birdon's BEPBs are transportable by road, air and sea to provide rafting, propulsion, and manoeuvring capability to assemble and propel ribbon bridge rafts between near and far shores. This capability is critical to Defence missions where existing bridges are damaged or destroyed rendering them unable to carry civilian or military traffic. BEPBs can also provide support for disaster and humanitarian relief efforts.

These vessels were custom designed by Birdon for the Australian Defence Force in 2004. Birdon provided a Life-of-Type-Extension (LOTE) in 2016 which saw improvements to propulsion and engines. A key component of the upgrades is the NAMJET propulsion unit that allows significantly more thrust at lower speeds whilst maintaining a top speed of 25knots. All BEPBs are fitted with twin NAMJet T381, designed and manufactured by Birdon's subsidiary company NAMJet.

### Availability

6-12 months. Custom design and production. Designed and manufactured to order.

## **Bisalloy Steels**



Manufacturing | Armour Steel

#### **Company Brief**

Bisalloy Steels is Australia's only manufacturer of high strength and high hardness quenched and tempered steel plate used for armour, structural and protection applications. Biaslloy supplies armour and protection grade steels to numerous Australian and international defence forces and their prime contractors.

Supplying manufacturers and end-users in a vast array of industries including mining, construction, general fabrication, pressure vessel and defence, Bisalloy distributes its products via a network across Australia, directly to end users, through its businesses in Indonesia, Thailand, South Africa, United Arab Emirates and the People's Republic of China.

#### **BISALLOY®** Armour Steel



#### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• Yes

#### **Product Information**

Offering quality that is second to none, BISALLOY® Armour steel has applications in Australia and abroad and is specified for hulls in Armoured Personnel Carriers (APC), Light Armoured Vehicles (LAV), Combat Reconnaissance Vehicles (CRV) and Infantry Fighting Vehicles (IFV), including the Bushmaster Infantry Mobility Vehicles in Australia, along with many APCs and LAVs worldwide.

The BISALLOY® Protection steel range runs the complete range of vital performance characteristics including strength, toughness and shock loading resistance, along with the ability to be readily formed, fabricated and welded as required. This makes it eminently suited to government and civilian applications including light armoured vehicles, land and sea patrol vehicles, cash-in-transit vehicles, safes and strongboxes, security booths, public and private facilities, safe rooms and many more protective applications.

#### Availability

< 3 months. Custom design and production. Designed and manufactured to order.

## **Blacktree Technology**



Communications | Design | Engineering | Manufacturing | Space Capabilities | Test Equipment Through-Life Support | Training & Education | Research & Development

#### **Company Brief**

Blacktree Technology is a highly adaptable and innovative communication systems specialist focusing on satellite and terrestrial systems, with a global reach from headquarters based in Australia. A Blacktree solution can encompass some or all aspects of the product life cycle, including innovative design, product acquisition and/ or manufacture, systems integration and supporting systems through life. Blacktree has expertise across the RF spectrum from HF, VHF, commercial and defence UHF, satellite and microwave systems. With the integration of products from Spirit River and Cidaal, Blacktree can provide an end to end turnkey solution.

#### SRR-01 UHF Helical Antenna



Spares and Support Equipment Available?

• Yes

#### Australian Export Control Approval Required?

• Yes

#### **Product Information**

The SRR-01 UHF Helical antennas have been designed to withstand, and currently are proven in, the harshest environmental conditions – used by various entities around the world in extreme conditions. The ruggedised construction of the antenna has been optimised to support full-duplex systems therefore minimising the potential for noise.

The SRR-01 is a right hand circularly polarised 11½-turn helical antenna. Coupled with the DSE-01 diplexer and PED-03 (manual) or PED-04 (remote control) pedestals, the system forms a complete ground station antenna system.

The single helical antenna provides an overall gain of 14dBi. The Dual Antenna Array consists of two SRR-01 antennas phased together to form one system. The dual phased array helical antenna will provide an overall gain of 17dBi.

### Availability

< 3 months. Custom design and production. Designed and manufactured to order.

### Blueye Eyewear



Field Equipment | Optical | Research & Development

#### **Company Brief**

Blueye Tactical Eyewear is a division of Blueye Eyewear, who have been designing, developing and manufacturing specific purpose eyewear for over 21 years, with the emphasis on supplying elite performance eyewear products.

In 2013, we were proud to release the first ever specific purpose ballistic eyewear range for international military and tactical markets. At Blueye Tactical Eyewear we strongly believe that for personnel to perform specific operational tasks they need to be wearing the correct piece of eye protection.

Whether it is Water Operations, Land, Air or Special Operations tasks, Blueye Tactical has developed an elite performance eye protection system.

#### Jager Eye Protection System



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

#### **Product Information**

The Jager Eye Protection System exceeds the US Military ballistic impact requirements for spectacles (MIL-PRF-31013, clause 3.5.1.1), and certified ANSI Z87.1-2010 ballistic impact and optical requirements EN166, AS/NZS 1337.1, CE.

Jager Tactical Sunglasses feature:

- 2.1mm precision optics lenses provide 100% UVA and UVB protection
- a 2 lens interchangeable system, in clear or smoke colour
- high impact Grilamid frame material in matt black colour
- adjustable nose pad for comfort, and low profile temples for ear muff compatibility
- retainer strap included, with RX adaptor available.

Discriminator: adjustable nose pad system that is compatible with various facial and nose shapes, hearing protection compatible including Peltor System.

#### Availability

# **Blueprint Lab**



Autonomous Systems | Robotics

#### **Company Brief**

Blueprint Lab develops world-leading robotic manipulators, designed to operate in the harshest environments while being intuitive to control. We work with militaries, oil and gas companies, and researchers around the world, helping them push the boundaries of remote and autonomous intervention.

#### **Reach System Manipulators**



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?
No

#### **Product Information**

Our Reach System comprises of tough, high dexterity, high performance robotic manipulators, configurable to a multitude of applications. Combined with master controllers that incorporate haptic feedback, they offer one of the most intuitive and operable capabilities available on the market today for remote intervention.

#### Availability

### Carbonix



Autonomous Systems | Intelligence, Surveillance & Reconnaissance | Engineering | Manufacturing Research & Development | Test Equipment | Through-Life Support | Vehicles & Accessories

#### **Company Brief**

Carbonix is a privately owned specialist UAV (drone) manufacturer based in Sydney, Australia. Our in-house engineers have expertise in developing world-class hydrodynamic and aerodynamic craft. We design our own tools, control testing and managing the entire process at our aerospace factory with advanced composite technicians and honed processes, formed over many years of building high-performance machines.

Our UAVs are constructed from ultra-lightweight, highly durable carbon composite materials, fitted with quality electronics and avionics to enable fully-autonomous operations, together with remotely pilot systems. We offer OEM-type training, maintenance and servicing programs, and comprehensive after sales support on a worldwide basis.

#### Domani Unmanned Aerial Vehicle (Drone)



#### Spares and Support Equipment Available?

• Yes

#### Australian Export Control Approval Required?

• Yes

#### **Product Information**

The Carbonix Domani is a complete UAV package for aerial surveillance, intelligence and reconnaissance. With a 4.5 metre wingspan, this drone is equipped with Vertical Take Off and Landing (VTOL) systems to launch in restricted spaces for long range fully-autonomous missions.

Designed for superior aerodynamic efficiency and built for ideal structural performance, the Domani airframe enables a stable flight and long endurance in some of the toughest conditions. The Domani also allows a range of sensor carrying capabilities including:

- Electro Optical
- Target Tracking,
- Gimballed,
- High Zoom,
- Non-dispersive Infrared sensors,
- Thermal,
- Hyper-spectral and
- LiDAR sensors available.

Offered as either an all-electric powered system capable of carrying up to 5kg payload with more than 2 hours flight time, or a hybrid 'fuel – electric' powered range extender variant capable of carrying the same payload for over 8 hours. The maximum take-off weight allows rapid field deployment in under 15 minutes.

#### Availability

### **CBG** Systems



Communications | Design | Electronic Warfare | Engineering | Intelligence, Surveillance & Reconnaissance Manufacturing | Research & Development | Ship Building | Test Equipment

#### **Company Brief**

CBG Systems is an Australian company specialising in the design and manufacture of Moonraker antenna systems and the supply and installation of fire, thermal and acoustic insulation, as well as signature management systems.

For more than 40 years we have been a leading innovator, setting benchmarks in the marine insulation, communications and lightweight passive fire protection industry.

#### Moonraker Antenna Systems



#### Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• Yes

#### **Product Information**

A broad range of conventional and high power broadband EW/Countermeasure communications solutions for Marine, Defence and Land based applications across the LF,MF, HF, VHF, UHF and SHF frequencies.

#### Availability

 $7\Delta$ 

### CGear Australia



Engineering | Manufacturing

#### **Company Brief**

In operation since 2003, CGear Australia has been manufacturing and supplying our worldwide patented extreme lightweight helicopter Landing Zones (LZ) to the military and civilian aviation industry. CGear products are in use by the US Marines, the British Army and the Australian Army.

Also offered is the Tactical Helimat and the Tactical Extraction Platform. Please refer to the company website for further information.

#### Helimat Landing Zone



#### Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• Yes

#### **Product Information**

Configurable Landing Zone depending on the size of the helicopter, which eliminates "brownout" and reduces maintenance by greater than 90% in desert landings.

Sizes from 18.3m x 18.3m (9 segment) in increments of 6.1m to 24.4m (16 segment), 30.5m (25 segment), 36.6m (36 segment). Individual segment weight of 22kgs.

#### Availability

# **Chiron Global Technologies**



Manufacturing | Training & Education

#### **Company Brief**

Chiron Global Technologies is an innovative Australian technology company that is disrupting the Defence, law enforcement, security and corrections industries through its unique, patented, high-tech body armour platform and supporting software solution. Chiron has spent five years of research to develop a unique armour platform that forms the basis of three products:

- Chiron-X1<sup>™</sup> High-impact carbon fibre training armour (trialled with Police and Defence)
- Chiron-X2<sup>™</sup> Chiron X1 + embedded force measurement sensor tech providing simulated injury data capture + analytics
- Chiron-X3<sup>™</sup> Operational (ballistic) armour + sensors to detect critical impacts.



#### Chiron-X1<sup>™</sup> Training Body Armour

Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

Yes

#### **Product Information**

Chiron Global Technologies' X-Series™ is a world-leading, close-quarter combat (CQC) armour platform. Chiron's highly protective armour and integrated technology has been designed to allow Defence and law enforcement personnel to train with unprecedented levels of realism, reduce injuries, and save the lives of on-duty personnel.

Chiron's flagship product, the Chiron-X1<sup>™</sup>, takes CQC training to a completely new level of realism. Combining superior agility and manoeuvrability, with extremely high levels of protection, the Chiron-X1<sup>™</sup> allows personnel to really 'train as they fight' using realistically high levels of force and speed, engaging within traditional training safety distances.

The unique, highly protective design of the Chiron-X1 armour is engineered to take high-impact, high-speed strikes to vital CQC targets such as the head, neck and throat. The helmet, neck and torso-plates have been specially engineered to disperse forces and minimise compression, hyper-rotation and whiplash to the neck and cervical spine.

### Availability

# Chironix



Artificial Intelligence | Autonomous Systems | Field Equipment | Humanitarian | ICT & Cyber Intelligence, Surveillance & Reconnaissance | Logistics | Medical | Research & Development | Robotics Vehicles & Accessories

#### **Company Brief**

Chironix is a software engineering company focused on robotic autonomy and artificial intelligence. We are specialists in human machine teaming, robotics and computer perception.

Through combining our expertise across robotics, wearables and machine learning, Chironix develops unique products which can improve work safety and efficiency, ease cognitive loading, allows humans to work natively with robots, and enhances business processes.

Our technical and human capabilities ensure our clients are able realise their returns on investment from our products and services.

#### Field Robotics and Human Augmentation



#### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• Yes

#### **Product Information**

Chironix specialises in highly autonomous unmanned ground vehicles, developing software and hardware that acts instinctively in remote areas. Our systems are optimised to navigate and locomote through new and dynamic terrain, enabling the transit and carriage of key equipment items, sensors and cargo. Our ground robots are designed to carry a range of manipulators throughout the environment, allowing for the robot to interact with physical items in space. Our robotics experts utilise a range of sensors and software to create autonomous systems that work successfully by perceiving their environments and responding to relevant changes autonomously.

In conjunction, our flagship product Metis uses Google Glass to provide a voice-operated, hands-free interface for customised workflows and videoconferencing to remotely located personnel in the field. Metis provides situational awareness to the wearer allowing them to follow appropriate and correct procedures for maintenance and attend to critical information efficiently.

#### Availability

# **Clearbox Systems**



Artificial Intelligence | Autonomous Systems | Communications | Design | Electronic Warfare | Engineering ICT & Cyber | Intelligence, Surveillance & Reconnaissance | Manufacturing | Research & Development Space Capabilities | Through-Life Support

#### **Company Brief**

Since 2007, Clearbox Systems has been delivering connectivity to customers around the world. We do this by providing technology solutions for the Operations and Management of Communications Networks and the Electromagnetic Spectrum.

Developed in Australia, and leveraging the best of our local and international partners, our software and hardware solutions are deployed spanning satellite communications, television and radio broadcast, Air Traffic Control, terrestrial networks, and Intelligence, Surveillance, Reconnaissance and Electronic Warfare (ISREW).

We do this by specialising in:

- Equipment and Sensor Monitoring and Control
- Spectrum Monitoring and Management
- Network Management
- Heterogeneous Signal Processing Systems.

#### Foresight



Spares and Support Equipment Available?
• Yes

Australian Export Control Approval Required?
No

#### **Product Information**

Foresight is a web browser-based, modular and distributed software platform with three variants covering Equipment and Sensor Monitoring and Control and Electromagnetic Spectrum Operations and management.

- 1. Centralised Monitoring and Control (CMC) simplifies large scale, distributed equipment and sensor installation by interface with large numbers of endpoints using any electronic interface.
- 2. Tactical NMS (TacNMS) reduces operator burden to configure small scale installations that are duplicated many times.
- 3. Electromagnetic Spectrum Management System (ESMS) provides insight to spectrum resources through monitoring, surveillance and resource planning.

The three variants are augmented by specialised modules covering scheduling, alarm management, Missions (Military), Trending and Reporting, Billing and Custom User Interfaces.

#### Availability

### **CISTECH Solutions**



Communications | Field Equipment | ICT & Cyber | Intelligence, Surveillance & Reconnaissance

#### **Company Brief**

CISTECH Solutions' core business is Radio-over-IP (RoIP). Our products include rugged radio gateways which provide the integration point between conventional radios and RoIP networks, allowing voice communications between radio users and PC based users on a network.

The hardware is compatible with the Motorola WAVE and Cisco Instant Connect (Previously IPICS) software RoIP consoles. Additionally, CISTECH also creates console software that integrates with our hardware, as well as Persistent Systems Wave Relay Mobile Ad-Hoc Networking (MANET) radio solutions. Our consoles provides a single pane-of-glass for RoIP voice, video situational awareness and system management within the MANET system.

#### **Rugged 1 Port Radio Gateway**



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• No

#### **Product Information**

The CISTECH Solutions radio voice gateway (GV1-2010) is a ruggedised portable radio gateway that provides a single Land Mobile Radio (LMR) port to connect voice radios to IP networks. The compact form factor of the GV1 is ideally suited for mission-critical voice communications over IP networks in fixed and mobile roles. The gateway features connections for one radio, as well as military H-250 handsets.

Network connectivity is through one of two Ethernet ports configured as a 2 port switch. The rugged construction of the GV1 enables the gateway to act as a communications hub in harsh environments and the device has been environmentally tested against MIL-STD-810G for temperature, humidity, altitude, shock and vibration. Using high-grade components, conduction cooling and extended operating temperature range, the GV1 is optimised for operation in harsh environments that require TCP/IP, VoiP and analogue Voice integration.

Also offered is the MANET Command Environment (MaCE) application, designed to operate with the Wave Relay® MANET radio solution from Persistent Systems. Please refer to the company website for further information.

### Availability

< 3 months.

# Cogito Group



ICT & Cyber

#### **Company Brief**

Cogito Group is an award-winning Australian-owned and operated cyber security company, with a reputation for producing innovative ICT security solutions on time and on budget. Cogito Group is committed to innovation and agile delivery methods.

We provide military grade cyber security solutions and support, including specialised software, hardware, as a service, and professional services to the Australian Defence Force and New Zealand Defence Force.

#### Jellyfish



#### Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• No

#### Product Information

Jellyfish is an award winning, innovative cyber security command and control platform designed to:

- Enhance Cyber-Situational Awareness
- Protect data, networks and mission-critical tasks
- Intelligently combine data from multiple sensors and applications, enabling sensor fusion
- Actively counter and respond to threats, as well as dynamically adapt to new threats
- Automate security functions by linking security data derived from both physical and logical domains
- Manage Identities and authentication mechanisms such as single sign on as well as credential management such as PKI Digital Certificates, Smartcards, Encryption Keys and One Time Passwords
- · Work with legacy, current and future systems
- Solve more than one pain point
- Provide a holistic and fully integrated view of your security platforms for Enterprise, MSSPs and SMEs alike.

#### Availability

< 3 months. Designed and manufactured to order.

# Conductix-Wampfler



Engineering | Manufacturing | Energy and Data Transmission Systems for mobile infrastructure

#### **Company Brief**

Conductix Wampfler are leaders in Mobile Energy Supply and Data Transmission Systems. Our core competencies lie in the development, production and consultation of solutions that provide tailor-made answers for all questions to do with mobile energy supply and data transmission for moving customers.

In addition to our undisputed capabilities in these sectors, our offer is remarkable for its expertise in numerous applications. Festoon systems, conductor rails, energy guiding chains, spring cable reels, motorised cable reels, slip ring assemblies and contactless power transmission systems.



#### Conductor Bar and Rail Systems – ACTIV-8

Spares and Support Equipment Available? • Yes

Australian Export Control Approval Required?

• No

#### **Product Information**

ACTIV-8 is the most widely used and stocked conductor rail in use in Australia. It was designed by Conductix-Wampfler engineers utilising over thirty years of experience and supported by the worldwide Delachaux group of companies with over fifty years of pioneering innovation in mobile electrification.

Across Australia you can find ACTIV-8 used in many applications including overhead cranes, automated storage and retrieval, assembly lines and other moving powered equipment.

With the ACTIV-8 range of accessories, the ease of installation and the Conductix-Wampfler team ready to assist in the design of difficult installations.

#### Availability

# **Coolon LED Lighting**



Manufacturing | Research & Development | Lighting

#### **Company Brief**

Coolon LED products are exclusively developed and manufactured in Australia to meet local and international standards. Coolon fittings have been utilised on numerous military projects in Australia to-date and are preferred suppliers to the top tier mining companies.

Designed to operate in harsh conditions including mobile mining equipment application, Coolon luminaires are capable of withstanding heavy vibration and high temperatures. They are equipped with on-board drivers and control circuitry providing both thermal protection and management. Coolon's history, experience and approach to the engineering and manufacturing of LED fittings ensures their products stand out amongst competitors.

#### CP66 320watt Flood Light



### Spares and Support Equipment Available? • Yes

Australian Export Control Approval Required? • No

#### **Product Information**

The CP66 luminaire is designed to withstand the harsh operating conditions commonly found on Australian military and mine sites. It is resistant to vibration and heavy impact, has the ability to withstand severe temperature variations and is high pressure washable. The CP66 is coated using highly resistant two pack polyester, capable of withstanding a 3000 hour salt spray test. The CP66 also uses aluminium alloy LM6 which is highly resistant to corrosion.

The CP66 luminaire is designed to operate on mobile equipment from on-board 24 VDC and is equipped with on-board drivers with reverse polarity, over-voltage and thermal protection. Like most Coolon fittings, CP66 is available in mains powered version for fixed plant applications and is customisable upon request.

#### Availability

# Craig International Ballistics



Design | Engineering |Manufacturing | Research & Development | Test Equipment | Through–Life Support Vehicles and Accessories

#### **Company Brief**

Over the last 20 years, Craig International Ballistics (CIB) has become the leading Australian manufacturer of combatproven armour systems. Craig International has now supplied more than 350,000 soft armour inserts, hard ballistic plates and training products to the Australian Defence Force, including to its Special Operations Command units.

CIB provides Australia with a sovereign capability in a key area of individual and force protection. For over twenty years the company has consistently delivered high-quality systems on time and on budget. Using these skills, the company has expanded beyond personal protection into developing armour for land vehicles, naval frigates, military aircraft and helicopters.

#### Soldier Combat Ensemble Protection and Composite Armour

Spares and Support Equipment Available?
• Yes

Australian Export Control Approval Required? • Yes

### Product Information

The ballistic protection products are specifically designed to offer protection from a number of different ballistic and fragmentation threats. The Soldier Combat Ensemble system by example provides a number of protection elements from threats such as; fragmentation, edged blade and spike threats, low velocity threats, high velocity threats and armour piercing threats when used in harsh operating environments.

Our training aid products allow soldiers to train with products with the same fit and form resulting in an improved operating life of the operational body armour. Our newly designed composite ballistic protection panels manufactured from UHMWPE materials are pressed, cut and coated within our own facility. We recently completed deliveries of ballistic protection panels to the Australian Army for fitment to the CH47-F aircraft. The range of products have undergone extensive ballistic testing, durability, immersion and environmental conditioning.

Testing has been completed using NIJ 0101.06 and the DEF(AUST) 10946 test standard.

### Availability

### **Daronmont Technologies**



Communications | Electronic Warfare | Engineering | Intelligence, Surveillance & Reconnaissance | Manufacturing Through-Life Support

#### **Company Brief**

Daronmont Technologies is a full service systems integrator specialising in fixed and deployable communications, surveillance, C4 and electronics. Capabilities include Passive and HF radars, ESM, C2 integration and deployable C4I. The company designs, manufactures, installs and supports both hardware and software systems and system upgrades. Daronmont maintains DSA certified facilities in Adelaide and Melbourne and an experienced team of over 80 engineers. Our engineering capability encompasses a mix of systems, software, hardware, mechanical and ILS disciplines. Customers include the Australian Department of Defence's Capability, Acquisition and Sustainment Group, Science and Technology Group and primes. Daronmont is an established exporter.

#### CommSECA 2020



#### Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

Yes

#### **Product Information**

Daronmont's CommSECA RF Communications Search and Direction Finding System has been specifically designed for military applications where low cost, high performance, unattended operations are required. Daronmont has developed leading-edge calibration expertise and algorithms to ensure the installed systems achieve high accuracy, especially in challenging Radio Frequency environments.

CommSECA detects and intercepts transmissions of interest. Searching the communication bands, CommSECA can passively track multiple transmissions, increasing awareness and the ability to respond quickly to illegal or life-threatening situations. CommSECA features low size, weight and power, an Open Architecture and an adaptable antenna interface. CommSECA comprises a single 3 or 5 RU 19 inch unit, a marine ruggedised 3-band, 5-channel antenna and antenna interface unit. CommSECA operates across the frequency range of 1 MHz to 3.6 GHz, with typical accuracy better than 2 degrees.

Whilst having the advantages of an off-the-shelf system, CommSECA also offers a high degree of customisation.

#### Availability

# Datapod



Artificial Intelligence | Communications | Electronic Warfare | ICT & Cyber | Intelligence, Surveillance & Reconnaissance Through-Life Support

#### **Company Brief**

Datapod manufacture scalable modular datacentre facilities, including all site infrastructure and site preparation, with capacity from several to hundreds of computer racks in a facility that can be deployed anywhere. The Datapod System achieves the highest physical security ratings and can accommodate government top level security classifications. Datapod is multi award-winning, and has been deployed and supported in locations around the globe. For permanent C4ISREW mission systems requiring massive storage and processing, or temporary FOB applications, the Datapod System enables world-class data storage and processing in an EMSEC-optimised environment.

#### The Datapod System



#### Spares and Support Equipment Available? • Yes

Australian Export Control Approval Required?

• No

#### **Product Information**

Australian designed and built, Datapod Systems are constructed from standardised factory built modules and have been deployed around the world since 2009. Typically they are deployed as a permanent structure to provide a timely, scalable and fit-for-purpose alternative to accommodating IT systems in brick and mortar facilities. Datapod Systems have a usable life expectancy of many decades, but can be moved or repatriated after their initial requirement expires. Datapod's design, build and deployment capability extends to the full site construction, power, cooling, racks, communications cabling, fire systems and security fitout, as well as ICT systems deployment. The fully standardised modules can be assembled to the customer's requirement for full Factory Acceptance Testing within 6 months and then shipped to site for deployment.

#### Availability

6-12 months. Designed and manufactured to order.

# Defence Communications Industry



Communications | Through-Life Support

#### **Company Brief**

Defence Communications Industry (DCI) is a niche capabilities company, designing and manufacturing specialist data communications products, with an outstanding 20 year track record with Australian and other defence organisations.

DCI is a Defence Recognised Supplier (LORS), with numerous industry award including the AFCEA 'Golden Links' for outstanding collaboration with Defence, and the 'Trevor Pearce Award' for outstanding product innovation and industry contribution.

DCI is a 100% Australian owned and operated small business with full product and related IP ownership. Core Capability: data links (network extensions) over copper, reducing infrastructure costs and logistics load to 90%.

# P4 / P2 – Data Links (Network Extensions) over copper 'D10' to 60Mbs/10kms



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required? • Yes

### **Product Information**

DCI's transparent and secure network extensions over 'D10' to 60/10km feature:

- simple and effective alternative to fibre-optics, reducing infrastructure costs and logistics load to 90%
- exceptional effectiveness in harsh terrain or areas with poor 'line-of-sight' that inhibit radio and wireless signals
- can be used to extend any IP (Ethernet) network data to/from HQ, remote operating bases, Combat Support Elements, coalition and agencies, video and data sensors
- two interchangeable product variants: P4 and P2 with 24Hr battery operation and miniature version for portable application, respectively
- power redundancy with DCI designed, high efficiency, portable solar panels: 50, 75 and 100W variants.

#### Availability

# **DOEN** Pacific



Design | Engineering | Manufacturing

#### **Company Brief**

Doen Pacific (Doen WaterJets) is a leading designer and manufacturer of waterjet propulsion systems focused on offering best of class waterjet products that excel in the harsh operating conditions of the commercial and military marine markets.

The extensive range of waterjets ensures that Doen WaterJets has a product offering to suit your vessel no matter big or small.

Our key value proposition promise is superior performance, excellent reliability and sheer simplicity of installation, operation and maintenance across our entire product range.

#### Waterjet Propulsion Systems



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

Yes

#### **Product Information**

Currently there are 16 models in Doen WaterJets range suiting engine powers from 100 to 5000hp. There are also a variety of Doen's own control systems available for each model to suit different application and budget requirements.

#### Availability

## DroneShield



Design | Electronic Warfare | Engineering | Intelligence, Surveillance & Reconnaissance | Manufacturing Research & Development | Weapons & Ammunition | Counter Drone

#### **Company Brief**

DroneShield delivers the pre-eminent turn-key solutions to detect, identify and defeat unauthorised drones, using proprietary multi-sensor technology, real-time alerts, digital evidence collection, and optional automated disruption of controller-to-drone and first-person-viewing radio communication.

Our customers are global commercial, government, and military users—who use DroneShield's robust protection from the growing threat presented by rogue drones.

DroneShield's comprehensive counter-drone protection ranges from man-portable and vehicle-mounted solutions, to temporary and mobile units, to permanently installed enterprise systems that have the capacity to secure areas as large as entire cities.

#### DroneGun Tactical Rifle-Style Counter-Drone Radio Frequency Disruptor



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?
• Yes

### **Product Information**

DroneGun Tactical is a fully integrated rifle-style, safe radio-frequency countermeasure against a wide range of drone models at a range up to 2km, weighing 7.3kg including batteries. Designed to be highly portable, it disrupts multiple radio frequency (RF) bands simultaneously. Activation of DroneGun's RF and/or optional GNSS (GPS, GLONASS) interrupts drone-control functions, navigation and the transmission of video to the operator. No damage results to the drone or the surrounding environment, as the drone will:

- enter vertical controlled landing, or;
- return to the starting point (assisting to track the operator), or;
- hover until drone batteries are depleted, initiating controlled vertical landing.

RF disruption activation will also interfere with any live first-person-video (FPV) streaming back to the remote controller halting the collection of video footage and intelligence by the drone operator.

Also offered is the DroneGun MKIII Pistol-Style Counter-Drone Radio Frequency Disruptor; DroneSentinel Turn-Key Counter-Drone Detection Solution; DroneNode Briefcase-Style Covert Counter-Drone Radio Frequency Disruptor; DroneSentry Turn-Key Counter-Drone Solution; and RfPatrol Body-Worn Drone Detection Device.

Please refer to the company website for further information.

Availability

3 months.

### ECLIPS



Design | Engineering | Logistics | Manufacturing | Research & Development | Vehicles & Accessories

#### **Company Brief**

ECLIPS is an Australian systems engineering company that designs and fabricates purpose-built deployable capabilities using shipping containers and derivatives.

ECLIPS are specialists in purpose-built logistics platforms, container-based modular buildings for the military and mining sectors, emergency accommodation, training facilities, and correctional services facilities and specialised off-the-shelf equipment. ECLIPS also create custom modules, designed by professional engineers and delivered to meet customer requirements.

#### Joint Modular Intermodal Logistics System (JMILS)



Spares and Support Equipment Available?
• Yes

Australian Export Control Approval Required?

• No

#### **Product Information**

JMILS is a modular, scalable and intermodal logistics system that enables packaging and supply chain optimisation.

Suitable for commercial and military use, JMILS consists of the Container Roll Out Platform (CROP), the Joint Modular Intermodal Container (JMIC) and the Stackable Plastic Case (SPC). The system is designed for loading and carriage of a wide range of goods and equipment using a standard 20ft ISO container.

JMILS digitalisation involves the integration of prognostics sensors and tracking systems to loads, enabling point-of-effect logistics support within a digitally integrated end-to-end supply chain. The system allows for efficient use of container space and safe loading and unloading using PLS equipped trucks, without the need for additional material handling equipment. The CROP can also be loaded onto the current ADF HX77 trucks without additional attachments.

#### Availability

6-12 months. Designed and manufactured to order.

# **Electro Optic Systems**



Communications | Intelligence, Surveillance & Reconnaissance | Optical | Space Capabilities | Through-Life Support Weapons & Ammunition

#### **Company Brief**

Electro Optic Systems (EOS), Australian-owned technology and manufacturing company has been operating in the defence, space and communications markets for over 35 years. EOS products incorporate a range of technologies including advanced electro-optic and microwave applications based on core technologies in software, laser, electronics, optronics, gimbals, telescopes and beam directors, as well as precision mechanisms and high-end broadband radio transceivers and satellite communications-on-the-move terminals.

EOS has deployed thousands of remote weapon systems around the world at fixed installations and on land, maritime and airborne platforms. Systems are designed, developed and manufactured in Australia and proven in combat with the ADF.

#### Remote Weapon System – R400S



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?
• Yes

### **Product Information**

The R400S can operate single or dual weapons. In the single weapon configuration, weapons can range from a 5.56mm MG to the M230LF 30mm cannon and the 40mm AGL. In the dual configuration, the R400S can operate both the 30mm cannon and a 7.62mm MG, or a 40mm AGL and a 7.62mm MG. The R150S, the world's lightest RWS is able to operate machine guns up to and including the 12.7mm and shoot precisely on the move over long range.

Benefits include:

- sub-milliradian system accuracy at long ranges through improved ballistic calculations;
- outstanding sensor package that rivals many of the currently-fielded optical ISR;
- common interface across all RWS and mounted weapons, minimising operator training requirements and maximising flexibility across the force; and
- complete vertical design with all IP owned by EOS, allowing for long-term obsolescence management.

EOS customers include the Australian, US, Netherlands and Republic of Korea.

### Availability

### **EM Solutions**



Communications | Design | Engineering | Manufacturing | Research & Development | Space Capabilities Through-Life Support | Training & Education

#### **Company Brief**

EM Solutions is a trusted technology developer of innovative microwave and on-the-move radio and satellite products that help to deliver high speed telecommunications anywhere in the world. The company's principal activity is the design, assembly, testing, and support of high end, broadband satellite transceivers and communications-on-the-move terminals for defence and government customers. Our most discerning customers typically serve the national interest and require resilient and assured systems operable in high threat environments.

In October 2019 EM Solutions was acquired by Australian company Electro Optic Systems (ASX:EOS).

#### Cobra X/Ka Band Triband Maritime Satellite Communications Terminal



Spares and Support Equipment Available?
• Yes

Australian Export Control Approval Required?

Yes

### **Product Information**

The Cobra terminal is a 1m class mobile satellite terminal that is certified to operate on the commercial Inmarsat GX service in addition to government and military satellites operating at both X and Ka Band – simultaneously in these two frequency bands if needed. The terminal achieved WGS certification under sponsorship from the Royal Australian Navy during 2019.

These terminals use a proprietary monopulse based tracking system and with the multi-frequency band operation fulfil the requirements of military and government users in the provision of "assured communications" and unbreakable links.

A larger 2m class Fleet Terminal for use on larger vessels is currently in development under a sponsored Defence Innovation Hub program. EM Solutions has implemented the same technology for land based mobile terminals and has a next-generation flat panel antenna in development.

#### Availability

3-6 months. Custom design and production.

### **Fiomarine Industries**

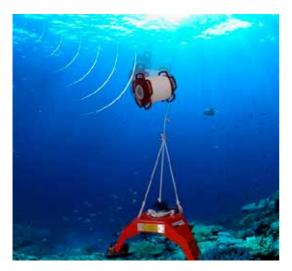


Communications | Design | Field Equipment | Manufacturing | Research & Development Through-Life Support

#### **Company Brief**

Fiomarine is a wholly Australian owned manufacturing company based in Tasmania, supplying to Defence for 20 years, including the Royal Australian Navy (RAN) and US Navy. Fiomarine has worked with RAN and Defence Science and Technology Group on various special projects modifying its technology to suit the application.

#### Fiobuoy Marine Marker Buoy and Retrieval System



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?
No

#### **Product Information**

The Fiobuoy® is a robust submersible marine marker buoy and retrieval system, specifically designed for military and research applications with applications in fishing industries. It is security coded, computer programmable, deployable to depths up to 200m, and is designed for underwater deployments from 1 minute and exceeding 6 months.

Fiobuoy is triggered by a pre-programmed time and date setting, or via Fiomarine's 'Acoustic Command' signal. At this time, it releases itself from its underwater mooring and floats to the surface to fulfil its marking function. The Fiobouy has a lifting capacity up to 10 tonne.

### Availability

### Fivecast



Artificial Intelligence | Engineering | ICT & Cyber | Intelligence, Surveillance & Reconnaissance

#### **Company Brief**

Fivecast was formed through a collaboration between Australia's national security agencies and various research organisations. Purpose-built to address the highest priority use cases in the national security, law enforcement and Defence markets, Fivecast capabilities have been proven to deliver real value through increased productivity and actionable insights. Fivecast is a spin-out of the Data to Decisions Cooperative Research Centre (D2D CRC). D2D CRC brings together researchers and industry to tackle the Big Data challenges that face Australia's national security agencies.

• Yes

No

#### Insight



#### **Product Information**

From the great mass of unstructured and multimedia data available today, Fivecast Insight surfaces critical insights to solve investigative and intelligence challenges. Insight operates at the leading-edge of AI-enabled technology, delivering world-first behavioural threat analysis capability. Insight arms analysts with force-multiplying data collection and automated threat assessment, allowing our Fivecast clients to cover more of the target environment, without an increase in staffing resources. Deployed to national security and law enforcement agencies in Australia and the US.

Insights key features include:

- advanced data collection and exploration
- unparalleled data access
- consistent and repeatable threat assessments across bulk data
- threat detections across image, text and video
- image analysis
- threat visualisation

- automated change detection & alerts
- network analysis
- force multiplier
- powered by deep learning
- built for purpose
- operationally validated

### Availability

< 3 months. Custom design and production. Designed and manufactured to order.

Spares and Support Equipment Available?

Australian Export Control Approval Required?

### **FLAIM Systems**



Training & Education

#### **Company Brief**

FLAIM Systems is focused on delivering next generation training solutions to ensure emergency services and first responder personnel are as best skilled as possible.

Using the potential of virtual reality and their expertise in immersive technologies, FLAIM Systems develops, produces and supports the next step in skills training for emergency services.

#### **FLAIM Trainer**



Spares and Support Equipment Available? Yes

Australian Export Control Approval Required?

• No

#### **Product Information**

FLAIM Trainer™ is a fire fighter training simulator providing an immersive virtual reality environment combined with realistic scenarios, patented force feedback system, breathing apparatus, real branches and nozzles, and heated personal protective clothing, to deliver a unique training experience. FLAIM Trainer™ is a safe low cost, mobile and distributed solution that can simulate a range of fire events and conditions for training fire fighters.

Incorporating a range of unique scenario replicating realistic smoke, fire, suppressant (even foams) behaviours FLAIM Trainer™ provides firefighters the capacity to train situations and scenarios that are unsafe or difficult to train, have safety and environmental constraints and incur significant cost and time.

FLAIM Trainer<sup>™</sup> is the perfect solutions for training emergency response teams in the military and aviation rescue fire-fighting work environments FLAIM Trainer<sup>™</sup> allows these organisations and training providers to train events specific to them train more, train better, train anywhere.

#### Availability

3-6 months.

# **GC Precision Developments**



Design | Test Equipment | Manufacturing | Research & Development | Through-Life Support | Training & Education Weapons & Ammunition

#### **Company Brief**

GC Precision Developments (GCPD) designs and manufactures innovative, premium grade precision rifles for military and police use. 21st century designs and manufacturing technology, including GCPD's proprietary chassis system, result in lightweight and extremely accurate rifles that provide "Over Match without Over Burden".

GCPD also offers suppressor technology with a service life far exceeding other products. GCPD will design, prototype and manufacture tailored solutions to your requirements and is willing to facilitate in-country manufacture under licence. We can also provide a full capability package including training from basic weapon familiarisation and armourer training through to specialised long range marksmanship, advanced sniper and reconnaissance skills.



#### AMAP (Anti-Materiel Anti-Personnel) Sniper Rifle System

Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?
• Yes

#### **Product Information**

GCPD offers the AMAP (Anti-Materiel Anti-Personnel) rifle system – using 21st century advanced design, spaceage materials and superior ergonomics to produce a truly exceptional sniper rifle system. Chambered in the proven, ballistically effective .375/.408 Cheytac calibre, the AMAP delivers sub-0.25 MOA capability designed to deliver both anti-materiel and anti-personnel capabilities.

The AMAP offers extreme range lethality, light weight and superior adaptability for mission. Most maintenance tasks can be performed by the operator in the field – including switching barrel or calibre, due to our unique barrel retention system that allows switches to be made quickly with minimal impact on zero.

### Availability

# General Dynamics Mediaware

Intelligence, Surveillance & Reconnaissance

#### **Company Brief**

General Dynamics Mediaware develops best of breed software for the processing, exploitation and dissemination (PED) of ISR video collected by airborne and ground-based motion imagery sensors. Mediaware's award-winning mission intelligence and data management products support commanders' decision making, manoeuvre forces, and the targeting cycle. Our STANAG 4609/NGA MISP compliant products can be accredited and installed across any military, law enforcement or commercial organisation with a need to exploit motion imagery from ISR platforms, and to manage massive amounts of ISR data.

Mediaware's professional team are experienced in supporting ISR systems deployed operationally around the world.



#### D-VEX: Motion Imagery Processing and Exploitation Software

Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

### **Product Information**

Mediaware's PED software (D-VEX) provides operators of ISR platforms with easy to use tools to derive, manage and distribute critical information from full motion video (FMV). It enables on-the-ground analysis, reporting, cataloguing and archiving. In addition to facilitating real-time exploitation of ISR FMV for immediate tactical advantage, D-VEX accelerates in-mission and post-mission reporting by efficiently condensing hours of flight time to minutes of focused and actionable information using highlight videos, snapshots, map chips and annotations. D-VEX's catalogue and archive capability allows users to store and link video clips with intelligence reports and summaries. The archive can be searched by geo-location, time, keyword, user tags or intelligence products.

D-VEX software is both platform and payload agnostic. This allows payloads to be upgraded or added throughout the life of type of the ISR platform in response to technological developments and changing user needs, while maintaining a single, common PED solution.

### Availability

< 3 months.

### **GVH** Aerospace



Design | Engineering | Field Equipment | Manufacturing | Vehicles & Accessories | Weapons & Ammunition

#### **Company Brief**

GVH Aerospace is an EASA approved organisation that designs and manufactures support role equipment and modification kits for special mission fixed wing aircraft and helicopters. We can provide scalable and agile solutions from bespoke certified aircraft modifications including special forces upgrades and role fit equipment. GVH Aerospace supplies role equipment solutions to Australian and international defence forces and their prime contractors, aircraft OEMs and major aeromedical operators.

GVH Aerospace operates in Australia, the United Kingdom and Singapore to bring our products and services into the Australian, EMEA and Asian markets and provide in-region support for its customers.

#### Special Forces Equipment for Helicopters and Aircraft



#### Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• Yes - for weapon mounts only

#### **Product Information**

GVH Aerospace provides special forces equipment and modifications for aircraft and helicopters including:

- multi-weapon gun mount systems that are customisable to different requirements, including compatibility with fast roping devices, ISR equipment, and different helicopter and aircraft cabin configurations
- crashworthy modular aeromedical equipment for medical evacuation and transport
- airborne mission consoles for ISR operators, including NVIS compatible displays and integrated mission computer and video recorder
- airborne ISR sensor installation
- airborne search and rescue equipment including sea trays and SAR equipment stowage boxes.

GVH Aerospace's solutions are adaptable and customisable to operational needs, and designed to be installed rapidly to support in-field reconfiguration of helicopters and aircraft for different missions. GVH Aerospace's solutions are designed to meet exacting aeronautical certification standards including EASA and key military airworthiness requirements, and the solutions are in service with major established military operators in Australia and Europe.

#### Availability

### H.I. Fraser



Design | Engineering | Manufacturing | Through-Life Support

#### **Company Brief**

H.I. Fraser specialises in gas, liquid and waste system design, build, maintenance and certifications. With a primary focus on solving difficult gas and fluid problems, their engineering capabilities provide expert solutions for a number of industries throughout the Asia-Pacific region.

Their extensive technical team consists of qualified mechanical, electrical and control engineering and fitting technicians qualified in electrical, mechanical, chilled water, hydraulic, pneumatic, instrument and waste treatment fields.

#### Special Forces Custom Designed Charging Panel



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• No

### **Product Information**

H.I. Fraser have customised gas and fluid systems to meet Defence customer requirements. An example of this is the Special Forces charging panels designed as a single portable solution to charge multiple gases and multiple applications including SCUBA, mixed gas diving, HAFO, HAPO and HUET.

The gases able to be concurrently charged are:

- a. HP oxygen (200 Bar)
- b. HP 60/40 Nitrox (300 Bar)
- c. HP air (ranging from 207-250 Bar and 300 Bar).

### Availability

# Holmwood Highgate



Design | Field Equipment | Humanitarian | Logistics | Manufacturing | Vehicles & Accessories

#### **Company Brief**

Holmwood Highgate is a recognised world leader in the design and manufacture of bulk liquid storage and transportation systems for fuel and water. They manufacture deployable, ruggedised bulk tanker modules built within an ISO container footprint. Applications include forward deployment, critical missions, peacekeeping, disaster relief and humanitarian purposes.

We are one of Australia's leading manufacturers of road tankers and aviation refuelling, with a proven 100% in-house capability – design, validation, manufacture and sustainment. We are committed to improving performance-based logistics and service acquisitions, reducing total cost of ownership, and focusing on innovative support and sustainment.

#### Deployable Bulk Liquid Fuel and Water Modules



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

#### **Product Information**

Holmwood Highgate has designed and manufactured a highly deployable "Tank Container Module" range. There are four variations – two multi-fuel and two water solutions; a storage tank plus pump or larger capacity tank only. Each are a versatile, deployable, module system for the transport, storage and discharge of both bulk fuel and water within a joint theatre environment.

The Module range fits within the internationally recognised 20-foot ISO shipping container footprint, is transportable by both commercial and military platforms and is able to interface with Coalition ABCA Bulk Liquid Equipment. Multiple "tank only" versions can be linked to a single tank and pump "base station" creating an even larger storage facility. The pump output is between 40 litres and 1000 litres a minute.

#### Availability

# Ideation Product Solutions



Design | Engineering | Manufacturing | Research & Development | Through-Life Support

#### **Company Brief**

Ideation Product Solutions is an Australian product design and manufacturing company. We work closely with the Defence Science and Technology Group to bring innovative defence oriented ideas from concept to product. Application areas range from Human Performance through CBRN detection.

#### ESIM2.0 Environmental Stress Index Monitor



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• No

#### **Product Information**

The ESIM2.0 is an OHS tool used as part of a Heat Stress Management policy, to avoid injury and/or fatalities to personnel operating in hot and humid environments.

#### Availability

3-6 months.

### **IPACS** Australia



Artificial Intelligence | Autonomous Systems | Design | Engineering | Logistics | Manufacturing | Research & Development Ship Building | Test Equipment | Through-Life Support | Vehicles & Accessories

#### **Company Brief**

IPACS designs, develops and sells asset management sensors, technology and software. IPACS is at the forefront in the collection, monitoring and reporting of real-time ship performance. The IPACS Marine Asset Management technology helps the Navy save millions of dollars by avoiding equipment failure and extending the life of machines. For the Navy, unplanned machine failure costs many days of lost operability. IPACS sensors and data acquisition units have been certified to confirm to the EN50155 railway electronic standards. IPACS technology has been accredited by Lolyd's Register and Det Norske Veritas for installation on-board many marine platforms in Europe.

#### **IPACS Marine Asset Management Technology**



#### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

#### **Product Information**

The IPACS Marine Asset Management technology collects real time data from sensors installed on machines. These sensors generate information such as vibration, speed and temperature. IPACS technology securely analyses and transmits data from anywhere in the world. Changes in vibration signature with respect to speed are an accurate measure of a change in the equipment, indicating a fault or an impending failure.

At the Defence Maintenance facility, Level 3 ISO certified vibration analysts use this data to determine the mechanical health of the asset in real-time. IPACS then provides reports in clear easily understood formats, enabling defence and contractors to make informed and timely decisions. IPACS helps Defence improve reliability by superior fault detection, and identifying operational issues which cause faults. The solutions IPACS provides extends the life of machines based on the real time condition.

#### Availability

< 3 months. Custom design and production.



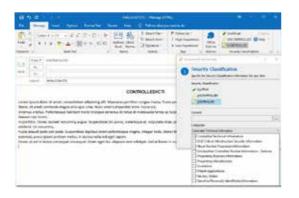


ICT & Cyber

#### **Company Brief**

Statistically around 30% of information breaches are as a result of human error. Janusnet develops software that enables governments and their suppliers to protect national intellectual property and government information through the application of rigorous and comprehensive marking methodology. Janusnet founders co-authored the original email protective marking standard used by the Australian Government. Now Janusnet software is used globally to enforce information handling policies and thus help prevent information breaches, spills or mismanagement.

#### Janusseal



#### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

#### **Product Information**

Janusseal is dual use software that enforces classification labels (protective markings) in documents, email and files. It ensures that human visible markings are accurately and effortlessly applied and that metadata is embedded. Accurate labelling facilitates both the sharing of information with the right people, and prevents distribution to the wrong people. Embedded metadata allows control systems to determine who has access and where an information asset can be sent.

The key capabilities of Janusseal include:

- email, document and file classification
- supports global information classification schemas including (but not limited to):
  - CUI/NIST SP 800-171 and CI USA;
  - Government Security Classifications UK;
  - NATO
  - PSPF, DSPF and EPMS2018.1 Australia;
  - PSR New Zealand; and
  - any commercial application.
- easy integration with a wide range of data loss prevention, gateway and document management technologies; and
- specialised markings that are configurable for military and intelligence use.

#### Availability

# Jenkins Engineering Defence Systems



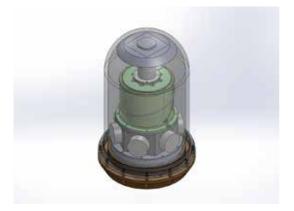
Electronic Warfare | Engineering | Intelligence, Surveillance & Reconnaissance | Research & Development

#### **Company Brief**

Jenkins Engineering Defence Systems (JEDS) is a wholly-owned Australian small business that specialises in the design, manufacture and marketing of Electronic Warfare (EW) products including software and the service and support of EW, radar and radio communications systems.

JEDS has specific expertise in bespoke equipment design, manufacture, repair and overhaul, testing, calibration and software support for a range of Defence, government and commercial customers, and also offers a wider project management, systems engineering, training and configuration management capability.

#### Periscope Antenna Subsystem (PASS)



#### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

Yes

### **Product Information**

The Periscope Antenna Subsystem (PASS) comprises JEDS' Periscope Antenna Unit (PAU) (Direction Finding (DF) capability optional) and updated Radio Frequency (RF) distribution and DF processing:

- Microwave Omni-directional Intercept: 1–18 GHz.
- Tactical Microwave DF (option): 2.7 18 GHz providing 5–7° rms bearing accuracy
- Millimetric Omni-directional Intercept: 18-40 GHz
- Communications Intercept: 20–1000 MHz (extends down to 1 MHz)
- GPS: L1 & L2 (option for including 2 or 4 element CRPA GPS arrays to facilitate GPS anti-jam implementations)
- Inboard Electronics: Suitable for mounting in a 19" rack.

Tailored to customer's requirements:

- Maximum height and width of units,
- Environmentals, and
- Cables.

#### Availability

### Kellogg Brown & Root



Artificial Intelligence | Communications | Electronic Warfare | Engineering | ICT & Cyber Intelligence, Surveillance & Reconnaissance | Logistics | Research & Development | Space Capabilities Through-Life Support | Training & Education

#### **Company Brief**

Kellogg Brown & Root (KBR) is a global engineering, construction and services company providing professional services and technologies to government (Defence, Aerospace, Space and Aeronautics), and several other major sectors. Services offered to government include training and exercise support; Base Operations Support; Missile Defence; Force Protection; Satellite Operations; Medical Mission Support; Fight Operations; physical security; Quality of Life; Contingency and Remote Base Life Support; Utilities Operations and Management; emergency response and firefighting, and System Engineering.

#### **ITEC-Ground**



#### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

Yes

#### **Product Information**

An ITEC-Ground (ITEC-G) facility (fixed or mobile) is an AIMS-certified Mode 5 IFF test capability designed to support 1103A-B and 1203A-B testing. It replicates the design and equipment configuration of the fixed test systems operating a mobile asset currently in service with the Australian Defence Force, and at Patuxent River NAS USA and Edwards AFB USA.

The Enhanced ITEC-G is designed to provide an 'end to end' Mode 5 IFF and Link-16 Certification testing capability by incorporating and integrating the Northrop Grumman Tactical Data Link Integration Exerciser (TIGER).

Size (approx.): Height: 2.5m (Secured), 4.0m (Raised); Width: 2.5m (Secured); Length: 6.5m; Weight: 7500kg.

Equipment: Telephonics AN/UPX-44A Interrogator; Passive Detection & Reporting System (PDRS); MSSR antenna; GPS; Two Operations Console Workstations with two 22" Monitors; Eight Laptop workstations with LAN connectivity; Space available for three computer or communications racks; Secure storage area and Mobile Phone Communications Hub.

#### Availability

### Kord Defence



Communications | Design | Engineering | Manufacturing | Research & Development | Weapons & Ammunition

#### **Company Brief**

Kord Defence is a small private technology company based in Canberra. We are a leader in the provision of mobile interface control solutions for operators in the Defence, homeland security and law enforcement markets. Kord designs and develops prototype and production push-button control systems, provides a range of custom training software and hardware products, and has extensive experience in the integration of soldier accessories and systems.

Kord and its sister company, KordUSA Inc, which is based in Stafford Virginia, are owned by KordTech Pty Ltd. Together they comprise the Kord Group, which was formed in 2007.

#### Rifle Input Control (RIC) System (generic)



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

Yes

#### **Product Information**

Kord has developed a patented push button control technology, called Rifle Input Control (RIC) Technology, which in the Defence context, provides soldiers with a fast, reliable and safe way of remotely operating their multiple electronic devices from one central location on their weapon.

This is a cutting-edge capability that is easily attached to a weapon, light (160g), exceptionally power efficient, simple to learn and operate, ergonomic and rugged, and fully programmable to meet different user requirements. It is being developed primarily for use in close combat operations where fast, simple, instinctive control of weapon-mounted and body-worn accessories is essential for the conduct of successful engagements.

#### Availability

### Leidos Australia



Artificial Intelligence | Autonomous Systems | Design | Electronic Warfare | Engineering | ICT & Cyber Intelligence, Surveillance & Reconnaissance | Logistics | Medical | Research & Development | Robotics Through-Life Support

#### **Company Brief**

Leidos Australia works within government, defence, intelligence, border protection and health markets. With over 1200 local experts, backed by our global experience and network of partners, Leidos Australia delivers solutions that help secure Australia.

With global reach-back into the US and UK, Leidos Australia is led by a local leadership team across three lines of business – IT Projects and Intelligence, Defence Mission Systems and IT Services. At Leidos Australia we are looking beyond the platform to deliver solutions to the Australian Defence Force and are a trusted partner of the Australian Government.

#### FASK Fly Away Survey Kit



#### Spares and Support Equipment Available?

Yes

#### Australian Export Control Approval Required?

• Yes

#### **Product Information**

The FASK is a deployable Rapid Environmental Assessment (REA) hydrographic system able to be attached to the gunwale or pontoon of a craft of opportunity (RHIB, LUB, etc) and provide an IHO Order 1A quality survey in water depths from 1-30m, operating in Sea States up to SS3.

A Norbit Multibeam Echo Sounder is attached to a rigid pole, which is attached to a cross beam supporting differential GPS antenna. The topside processor, powerful laptop and battery power for up to 12hrs of operation are contained in modified Pelican cases – allowing transportability and environmental protection. When disassembled, the kit is man-portable by a 2 person team, and air / sea transportable for rapid deployment. Leidos Australia can configure the system for different hydrographic missions; including alternate sensors, and also hydrographic processing software (including our own US products), to meet specific user needs.

#### Availability

# Liferaft Systems Australia



Manufacturing | Ship Building | Through-Life Support

# **Company Brief**

Liferaft Systems Australia (LSA) is a dynamic company formed specifically for the design and manufacture of high quality Marine Evacuation Systems (MES) and large capacity life rafts.

LSA has developed a product that is synonymous with quality and reliability, which is of paramount importance in the marine safety industry. The LSA range of MES provide rapid and safe evacuation for all types and sizes of personnel carrying ships.

# Marine Evacuation Systems



### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

# **Product Information**

The unique LSA MES is installed on a wide range of military craft throughout the world. These include littoral combat ships, landing platform and dock ships, expeditionary fast transport (EPF) vessels, offshore patrol vessels, primary casualty receiving ships and aircraft carriers. The LSA MES has also shown to be adaptable to front line vessels including frigates, and the systems components can be installed with a reduced radar signature configuration.

LSA MES are compact and light-weight and provide for safe and rapid transfer of all personnel, including injured and stretcher cases, directly from the vessel into large capacity life rafts via an inclined evacuation slide.

The MES can be deployed in less than 60 seconds and are capable of evacuating 600 persons per MES station in under 30 minutes.

The LSA system does not require any winches or complicated hydraulics, thus providing for easy integration in to ship designs, and simple installation on-board.

# Availability

6-12 months. Designed and manufactured to order.

# M4 Medical



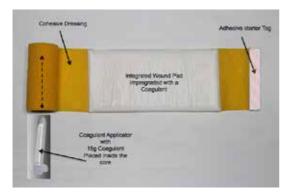
Humanitarian | Medical

# **Company Brief**

M4 Medical specialises in combat survivability in saving lives with faster, easier wound care management.

The CoFAD Coagulate Combat Dressing was developed to provide a more efficient form of wound care that is easier and quicker to apply, with the high likelihood of improved health outcomes for the battlefield casualty.

# CoFAD Coagulate Combat Dressing



### Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• Yes

# **Product Information**

The CoFAD Coagulate Combat Dressing is packaged and sterilised as one component and consists of a flexible cohesive material with a non-adherent pad. The pad is impregnated with the coagulant Chitosan, with additional Chitosan applied into the wound with an integral coagulant applicator. The bandage is easy to apply by a first responder, or self-applied by an injured combatant.

The dressing will prevent blood loss through coagulation and correct application of haemostatic pressure (by pictograph). It will require no additional clips to hold it in place, adhere more efficiently to the body, have improved all weather capability including application to wet skin, and in rain and even underwater. It has improved protection against external contaminants entering the wound, and the provision of a panel for accurate recording of health knowledge management data. These features all contributing to a vastly improved response to wound management.

Available in Sizes 5 - (150 mm x 2000mm) and Size 4 - (100mm x 1000mm).

Also offered is the Cohesive First Aid Dressing, available in five different Sizes — 25mm, 50mm, 75mm, 100mm, 150mm. Please refer to the company website for further information.

# Availability

3-6 months. Custom design and production.

# Marathon Targets



Autonomous Systems | Engineering | Manufacturing | Research & Development | Robotics | Training & Education

# **Company Brief**

Marathon makes autonomous robotic targets for live-fire marksmanship training. This unique system addresses a fundamental training gap: the first time shooters engage a realistic moving target is typically in combat. The system has been used to better prepare soldiers for combat since 2008 – end users include Special Forces and regular army.

Customers include the ADF, USMC, US Army, USSOCOM, Canadian SF, and units in the Middle East and Europe.

# **T40 Robotic Target**



### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

Yes

### **Product Information**

T40 is the most capable and versatile of the Marathon family of robotic targets. It has perfect balance of speed, acceleration, armour, target realism, and customisable hit response.

Training applications include reactive scenarios (indoor and outdoor), urban operations (including sniping), combat shooting, long-range sniping, combined arms exercises, and robotic OPFOR.

Marathon Targets also offer other robotic targets including the T30 and T10. Please refer to their website for further details.

# Availability

3-6 months. Designed and manufactured to order.

# Metromatics



Design | Engineering | Field Equipment | ICT & Cyber | Manufacturing | Research & Development Through-Life Support

# **Company Brief**

Established in 1989, Metromatics specialises in the design, manufacture and integration of Customised Rugged Lightweight 19" Equipment Racks, bespoke enclosures and consoles for the Naval and sea going platforms (surface and subsurface).

Our products are qualified to shock, vibration, environmental Military Standards, along with many other applicable certifications.

Our skilled staff are experienced with wiring electrical sub-assemblies, cables, harnesses and PCB sub-assemblies using IPC-610 and IPC-620 certified techniques. Metromatics is ISO9001: 2015 qualified.

We provide all aspects of verification, validation, configuration and project management along with full supporting documentation to our deliveries.

# Lightweight, Rugged 19" Equipment Racks, Bespoke Enclosures and Consoles



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

# **Product Information**

Network Racks, Encryption Racks, Entertainment System Racks, Radio Operator Console Bayed Racks, High Power DC Supply Cabinets and Inverter Cabinet Assemblies, and safely house the necessary electrical and electronic equipment required on-board for Defence Personnel.

Our racks are lightweight with a stainless steel internal frame and aluminium skin, and weigh up to 1/3 less than similar products on the market but with the same or better strength, and yet still have a payload of 250+kgs. With the rack weight significantly reduced, it enables the Defence Forces to carry other essential equipment without overloading the vessel and therefore ensuring the safety of our Defence Personnel.

# Availability

# **Milspec Manufacturing**



Design | Engineering | Manufacturing | Through-Life Support | Vehicles & Accessories

# **Company Brief**

Milspec Manufacturing is an Australian owned designer and manufacturer of alternators and power systems. Our unique offering uses permanent magnet alternators for vehicle power, delivering 100% of alternator output at vehicle idle. These same alternators are used in the following applications:

- vehicle primary electrical power delivery
- vehicle auxiliary power delivery
- portable DC to Dc power delivery
- field power generation.

Milspec's full product range features auxiliary power units, exportable power modules, exportable power modules, power distribution units, vehicle C4i installation kits, enclosures and racking, and cable systems.

# Alternators



### Spares and Support Equipment Available?

Yes

### Australian Export Control Approval Required?

• No

# **Product Information**

The Milspec alternator range has seen use in both Australian and international defence forces. Milspec alternators are manufactured and tested in-house to meet standards Mil STD 461, 810, and 1275, and are smaller and lighter than competitors.

Milspec's permanent magnet alternators:

- 200-900Amps
- Military standards Mil-461, Mil-810, and Mil-1275
- Mechanical/electrical efficiency of 83%
- IP rating IP67.

# Availability

# Minecorp Australia



Autonomous Systems | Field Equipment | Research & Development | Design | Engineering Manufacturing Through-life Support | Vehicles & Accessories

# **Company Brief**

Minecorp is the Australian industry leader in safe, sturdy, compliant fleet vehicle modifications. We design, manufacture and install fleet fit-out solutions for all commercial fleets, working with stakeholders to ensure a customised solution with quality automotive accessories, components and a complete vehicle conversion that is fit for purpose.

### Military Working Dog Module



Spares and Support Equipment Available?

- Yes
- Australian Export Control Approval Required?
  No

# **Product Information**

The Military Working Dog Module has been designed to integrate with the Mercedes Benz G-Wagon platform vehicles, however can also be designed to suit other applications. It is designed to safely house 2 dogs during transit and offers slide out trays for easy cleaning. The design incorporates tactical led lighting, ammunition and cargo storage, whilst offering excellent air flow.

Backed by extensive research and development, our innovative products and services are designed to comply with workplace and operational regulations, ensuring functional and quality for operators.

# Availability

# **Minelab Electronics**



Design | Field Equipment | Humanitarian | Manufacturing | Research & Development

# **Company Brief**

Minelab provides metal detecting technologies for consumer, humanitarian de-mining and military applications. Through our dedication to research and development and innovative design, Minelab is a leading manufacturer of hand held metal detector products. Since 1998, Minelab has supplied metal detectors throughout the world including UN de-mining programs. Minelab was selected to develop and supply its metal detection technology and hardware for inclusion in the US Handheld Standoff Mine Detection System – the world's first military dual sensor (MD and GPR) detector.



### MDS-10 Dual Sensor Detector

Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• Yes

# **Product Information**

The MDS-10 combines unique Metal Detection and Ground Penetrating Radar technologies to provide superior results in the detection of metal and nonmetal targets.

- Features include:
- selectable or combined use of sensors, detection, interrogation and pinpointing modes;
- continuous real-time display;
- tactical mode for use with NVG, selectable audio, haptic and visual alerts and an operational weight of 2.8 kg.

# Availability

3-6 months. Designed and manufactured to order.

# MoTeC



Design | Engineering | Manufacturing | Research & Development | Training & Education | Vehicles & Accessories

# **Company Brief**

MoTeC designs and manufactures specialist automotive electronics for applications which include Engine and Vehicle Control, Power Distribution Management, Vehicle Colour Displays, and Data Logging/Telemetry and Data Analysis. MoTeC's products and associated IP covers hardware, firmware and software. MoTeC's 30 plus years of successful products in the motorsports market globally has established a reputation for adaptable and reliable products, which are being successfully leveraged into military applications and solutions.

# Vehicle Electronic Control Unit (VCU) and Engine Control Unit (ECU)



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

Yes

# **Product Information**

MoTeC's M1 range of VCUs / ECUs provide highly software programmable and adaptable solutions to a very wide range of applications. Our VCUs are applied as 'chassis control modules' enabling very high degree of platform systems integration, covering CAN Bus communications management (including J1939 compliance) and logic based monitoring and control of platform sub-systems. MoTeC VCUs are now also being applied to Electric and Hybrid Vehicle solutions, in particular in the 'supervisory controller' role.

MoTeC has long standing experience in application of our ECUs to a wide range of engine types, including petrol and diesel. MoTeC's 'Build' applications development software environment provides an effective tool for programming unlimited application types for our VCUs/ECUs. The combination of our hardware and Build and Tune software enables fast and efficient solutions development and production implementation. MoTeC now also offers a Model Based (MatLab) function with our Build software.

# Availability

# Nobles



Design | Engineering | Field Equipment | Manufacturing | Test Equipment | Through-Life Support | Vehicles & Accessories

# **Company Brief**

Nobles is a leading specialist provider of lifting and rigging equipment and components, technical services and engineering design and fabrication for complete solutions to the heaviest and most complex Defence lifting, rigging and lashing requirements on land, air or sea.

Nobles supplies lifting and rigging products and services across the full Defence procurement and operating value chain, including shipyard and manufacturing facility construction, vessel and vehicle build, as part of the equipment and vessel itself and during sustainment.

Nobles is a 100+ year old Australian owned and operated company with locations Australia-wide.

# Medium & Heavy Vehicle Lifting & Recovery Blocks (plus Other Custom-Engineered Defence Lifting Devices)



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

Yes

# **Product Information**

Nobles develop an innovative series of recovery and lifting blocks for heavy to medium vehicle recovery, supplied into the Australian Defence Force's Land 121 project during 2018-2019.

Beating global competition using specialist in-house lifting and rigging expertise in metallurgy, mechanical engineering design and product testing to meet stringent ADF specifications and Australian Standards, Nobles have custom-engineered a new series of super-strong, light-weight and easy to assemble and disassemble lifting and recovery blocks from scratch.

Due to the strong performance of these blocks in the field, Nobles is now working with Defence primes on supplying similar blocks into additional domestic and export defence projects.

# Availability

# Norcoast Refrigeration Company



Field Equipment | Humanitarian | Manufacturing | Medical | Vehicles & Accessories

# **Company Brief**

Norcoast Refrigeration is a specialist manufacturer of Trailblaza portable 12/24 volt DC refrigerator-freezers. All products are highly energy efficient, battery operated and suitable for solar applications.

The late Robert Albiez and wife Margaret started the company in 1983 producing the Trailblaza Range of portable refrigeration units. All units are individually handmade and individually tested at their factory, and can be customised to provide specific refrigeration solutions. There are well over 23,000 units in the field. Many of these units are being utilised by Defence, government agencies, mining corporations and health centres overseas in remote locations.

# Trailblaza Portable 12/24 volt DC fridge-freezer



### Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• No

# **Product Information**

The Trailblaza portable fridge-freezers have a proven record for robustness, reliability and the ability to work in high ambient conditions with high energy efficiency, serviceability and durability. There are over 23,000 units in the field in Australia and overseas. Trailblaza Units are available from 20 litres to 200 litres with 60 models available. All units can be customised to provide specific refrigeration solutions for individual specific applications.

The Trailblaza portable refrigerators-freezers are manufactured with 2mm marine grade aluminium inside and out with a riveted construction on the outside shell while the inside box is fully Tig welded. Only the highest quality components are utilised with each unit individually handmade and individually tested in their test ovens at 43 degrees Celsius.

Norcoast has the ability to test to specific outside ambient temperatures and criteria as required. Our in-house quality control has been a key factor to ensure every Trailblaza meets our high standard for over 36 years.

# Availability





Manufacturing

# **Company Brief**

Norseld has a world leading specialty coating capability referred to as Diamond Like Carbon (DLC). The specialised capability can be applied across all four Defence domains. The Norseld process is unique in its superior quality and speed. Norseld is currently in discussion with a number of Defence Primes to undertake specialised coatings, and is an ISO9001:2008 holder and ISO13485:2003 holder (medical devices).

# **CoolDiamond DLC®**



# Spares and Support Equipment Available? • Yes

Australian Export Control Approval Required?

No

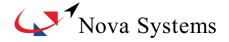
# **Product Information**

Norseld has developed a new DLC coating technology called CoolDiamond DLC®. The process provides the ability to coat at room temperature compared to other Diamond-Like Carbon coaters who cannot, resulting in a world leading capability. This means it is possible to coat composite material that would normally degrade under extreme heat.

DLC is the hardest material known to humankind and has been in development for over 30 years. CoolDiamond DLC® has properties that exceed current conventional DLC and these include superior hardness, and extreme smoothness.

# Availability

# Nova Systems



Design | Engineering | Research & Development | Test Equipment | Through-Life Support | Training & Education

# **Company Brief**

Nova Systems is a 100% Australian owned and operated global professional service provider, enabling technology to provide independent, holistic solutions to complex and critical capability problems for Government and industry.

With offices across Australia, New Zealand, South East Asia and Europe, Nova Systems offers end-to-end requirements, acquisition and sustainment engineering and management services for Air, Sea, Land, Space and Joint projects and programs.

Our test and trials capabilities include:

- development test and evaluation
- acceptance test and evaluation
- operation test and evaluation
- systems-of-systems testing
- range safety and management
- validation of operations procedures.

### Requirements Assurance and Validation Suite (RAVS)



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?
No

# **Product Information**

Nova Systems Requirements Assurance and Validations Suite (RAVS) is a proprietary software tool that enables Nova Systems to efficiently and effectively manage the capability lifecycle through comprehensive and efficient requirements management and traceability, including effective test program planning, conduct and automated reporting.

Core features include:

- Process Control different engineering, risk management and approval processes mapped within the RAVS database allowing customisation; variety of risk management frameworks, with relevant risk treatments applied to individual test steps.
- Database each database action tracked and stored, ensuring data integrity, configuration control and traceability; Databases and versions can be searched, reviewed, compared and restored; common data (standards) can be reused without the need for separate input.
- Reporting includes reporting, presentation and decision support tools, and data display dashboards.

RAVS enables Nova Systems to provide unparalleled results in the introduction of new capabilities to delivering real world outcomes that solve our client's problems.

# Availability

# Ocius Technology



Autonomous Systems | Intelligence, Surveillance & Reconnaissance | Robotics | Ship Building | Vehicles & Accessories

# **Company Brief**

Ocius Technology develops innovative, autonomous solutions to monitor and patrol marine environments. Ocius has a track record of conceiving, funding, and delivering difficult, innovative, high-tech, award-winning projects on time and on budget.

The company has built high-tech, award winning, hybrid electric, commercial passenger ferries to international classification requirements, which together have carried tens of thousands of passengers.

### **Bluebottle USV**



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

Yes

# **Product Information**

The Bluebottle is an unmanned surface vessel (USV) designed to harness energy available in the wind, wave, and sun. Bluebottles can operate for extended periods far from home.

Supporting a large payload capacity and an in-keel winch, each Bluebottle can be equipped with a variety of sensing and processing payloads to enable a wide range of operational capabilities. Potential payloads can include satellite, acoustic and radio network communications, environmental sensors, EW and ASW packages. The in-keel winch allows a Bluebottle to carry towed, or lowered sensors and keep them safely stowed during transit, launch and recovery. The ability to be launched and recovered using a trailer or a crane further enhances a Bluebottle's capabilities and reduces operational costs.

# Availability

6-12 months.

# Penten



Artificial Intelligence | Autonomous Systems | Communications | Electronic Warfare | Field Equipment | ICT & Cyber Intelligence, Surveillance & Reconnaissance | Research & Development | Test Equipment

# **Company Brief**

Penten is an Australian cyber security company, providing specialist cyber security engineering for Defence and Government focused on true innovation and pushing the boundaries of technology. Penten are award-winning cyber innovators with a track record of bringing world-class ideas to Defence to solve difficult problems.

Penten has a long history of building accreditable designs and solutions for classified information exchange, delivering full stack ICT engineering capability; from rapid prototyping through to in-service operation. Penten has the necessary depth of skills, experience and security cleared resources to deliver enterprise solutions which can be tailored and supported locally to deliver sovereign solutions.

### TrapDocs



### Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• No

# **Product Information**

TrapDocs cyber deception technology enables your organisation to regain the cyber advantage and protect your systems from data loss. We use artificial intelligence in a novel way to automatically create document traps (honeyfiles) to discover data theft and unauthorised users. Our artificial intelligence makes these honeyfiles look like real documents, but they don't contain anything of value. TrapDocs integrates into your existing cyber security investments allowing you to be notified if anyone accesses them. TrapDocs provides a low overhead, low signature, high probability files access and data loss alert capability, increasing the cost to threats of unauthorised access. This increases overall security of your system without affecting normal operations, overcoming issues associated with other cyber intrusion detection systems.

- Automatically deploy, update and retire honeyfiles
- Realistic content that matches your data
- Camouflaged to hide in your files
- Integrate with your existing cyber systems
- Generate different files every time.

Also offered is the Altocrypt Stik and Altocrypt Box. Please refer to the company website for further information.

# Availability

# PFG Group



Manufacturing | Vehicles & Accessories

# **Company Brief**

PFG Group is an Australian manufacturing business that specialises in manufacture and distribution of marine, maritime and industrial equipment for domestic and global markets. Aquatruck is an award winning business unit of PFG Group which manufactures a range of commercial watercraft from 3 to 12 metres in length which are specifically designed for operations in harsh environments and any type of water conditions.

# Aquatruck



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

# **Product Information**

PFG design and manufacture Aquatruck watercraft as search and rescue and high performance work boats able to safely transport people and equipment over water. Vessels are manufactured from a High Density Polyethylene engineered polymer which has many advantages over traditional alloy and glass fibre construction materials. These include high impact and ballistics resistance, 4-5 times longer service life, zero corrosion, greater stability, buoyancy, improved safety with a softer, quieter ride. A softer ride is critical to minimising injury and fatigue related problems for the vessel's occupants and is especially important in long-range and/or high speed transits.

Aquatruck boats have a proven reputation as safe, stable, reliable, durable and versatile vessels. The company has manufactured boats for more than 20 years and has also won multiple Australian boatbuilding awards.

# Availability

# **Pivot Maritime International**



Artificial Intelligence | Autonomous Systems | Communications | Design | Engineering | Manufacturing Research & Development | Test Equipment | Training & Education | Simulation Technology

# **Company Brief**

Pivot Maritime International manufactures shiphandling and navigation simulation systems, specialising in portable simulators designed for use on board ships or on land for mission rehearsals, vessel and port design, vessel and crew performance assessments, and shiphandling and navigation training.

Pivot also provides specialist maritime training and consultancy services, using its simulation expertise and technology to meet client requirements. Pivot simulators comply with international regulatory requirements for seafarer training and assessment.

Pivot has a strong record of providing innovative and cost-effective products and services to international maritime and defence industries including the Australian Defence Force.

# **Container Simulator**



### Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?
No

# **Product Information**

Integrated full mission navigation and shiphandling bridge simulator in a fully insulated 20 or 40 foot shipping container for ultimate security and transportability

- Real ship controls and navigation equipment, including Integrated Navigation System/Integrated Bridge System (INS/IBS) consoles
- 6 degrees of freedom (DOF) full motion, either with helm seating or with up to 8 navigators standing on bridge floor
- Olfactory (smell) effects integrated into visual, vibration floor and console instrumentation
- Integrated multiple containers for larger bridge systems with bridge wings and 360° visuals with dual consoles/work stations
- Large database of vessel/area models based on actual vessels, ports and sea areas
- Ship/port/sea area modelling can be customised to reflect a vessel's actual operating environment
- Drone technology used to quickly develop high quality 4k/8k resolution 3D new area models
- Easy to transport, for use on land or at sea to help personnel remain in peak performance.

# Availability

# Performance Lubricants Australia



Engineering | Vehicles & Accessories | Weapons & Ammunition | Reliability, wear reduction and extension of equipment life

# **Company Brief**

Performance Lubricants Australia (PLA) is a Darwin-based company specialising in high performance lubricants and metal treatments. PLA is the appointed Sole Distributor for the Uniglide technology for Australasia and collaborates closely with the principal and owner of the Intellectual Property Uniglide Lubricants Australia.

# Uniglide Gun Gard



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• Yes

# **Product Information**

Uniglide Gun Gard is a highly effective weapons lubricant proven to enhance reliability in automatic weapons. The versatility of this technology ensures that Gun Gard can be used in all weapons requiring lubrication. It also has excellent rust and corrosion protection capabilities.

Packed in aerosol cans, it has an inert propellant for safer use in confined spaces (tanks, fighting vehicles, holds of vessels etc). Being highly concentrated, Gun Gard is used sparingly making it very economical to apply.

# Availability

< 3 months.

# Praesidium Global



Autonomous Systems | Design | Engineering | Field Equipment | Manufacturing | Research & Development Robotics | Through-Life Support | Vehicles & Accessories

# **Company Brief**

At Praesidium Global our mission is to reduce a war fighter's exposure to danger.

Praesidium Global designs and manufacturers a range of Unmanned Ground Vehicles (UGV) for operations in harsh and demanding environments.

The MAPS UGV is a 100% Australian product built at our facility on the Sunshine Coast, Queensland.

### Mission Adaptable Platform System (MAPS)



# **Product Information**

The Mission Adaptable Platform System (MAPS) is a medium sized Unmanned Ground Vehicle supplied to the Australian Defence Force.

The platform offers beyond 76 hours of operational duration, supports a number of control options such as follow me, anti-tank swarming and tele-operation. The platform is of modular design affording plug and play flexibility and has the ability to support a wide array of payloads from ISR to logistics, force multiplier and casualty evacuation.

# Availability

3-6 months. Custom design and production. Designed and manufactured to order.

Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• Yes

# **Prism Defence**



Design | Engineering | Research & Development | Test Equipment | Training & Education Ship Air Interface Integration, Test and Trials

# **Company Brief**

Prism Defence are embarked aviation capability specialists. We are an Australian company which specialises in ship-air integration and innovative solutions that support the development and management of Ship Helicopter Operating Limits.

Prism Defence works with defence forces to conduct flight tests in the harshest maritime environments, proving and enabling embarked aviation capability. Operating limits defined by Prism Defence enable operators to confidently fly helicopters and Unmanned Aircraft Systems from ships at sea – wherever and whenever required.

Our capabilities include flight trial management, conduct and reporting, engineering and software product design, development and support, and consultancy and training services.



### HeliSAFE Embarked Helicopter Management System

Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required? • Yes

# **Product Information**

HeliSAFE is a software product that streamlines the management of Ship Helicopter Operating Limits (SHOL) and associated embarked aviation policies and procedures which are integral to airworthiness assurance onboard naval vessels.

As a ship-based software solution, HeliSAFE supports the safe and effective management of helicopter operations from single or multi-spot ships. It standardises aviation management practices at sea, replacing manual activities that have potential for human error and thus cumulative risk, and enables maximum operational capability and tactical flexibility to be realised.

HeliSAFE readily integrates with existing ship sensors and data inputs to provide a comprehensive view of aircraft status, operational conditions and procedural compliance to all aviation-related positions. For operation of multiple aircraft, a combined SHOL provides a clear understanding of operational limits for a selected combination of activities or operations. Prior to installation, HeliSAFE is configured to suit the customer's aviation operations and specific operating procedures.

Prism Defence also supports Defence forces and industry clients with an assured, comprehensive and proven Ship–Air Integration Capability that enables safe and effective embarked aviation operations. Please refer to the company website for further information.

# Availability

# Quartz Internationale



Design | Engineering | Field Equipment | Manufacturing | Research & Development | Ship Building Through-Life Support | Vehicles & Accessories

# **Company Brief**

Quartz Internationale has expertise in composite materials and processes, fire retardant flexible foams for seating and sleeping arrangements, integral skin foams, fire retardant coatings for rigid and flexible materials, seating design and refurbishment.

### Fire retardant flexible foams



Spares and Support Equipment Available?
• Yes

Australian Export Control Approval Required?
No

# **Product Information**

Fire retardant flexible foam products moulded for body contact – seats, mattresses, protective padding, arm rests, handles, and backrests. The product is certified to the relevant standards.

Quartz can design, develop the mould tools and processes and manufacture the foam assemblies. The foams can integrate various parts including inserts, covers, reinforcements and sensors.

# Availability

# **RAIDER Targetry**



Artificial Intelligence | Autonomous Systems | Design | Electronic Warfare | Engineering | Field Equipment Intelligence, Surveillance & Reconnaissance | Manufacturing | Research & Development | Robotics | Through-Life Support Training & Education | Vehicles & Accessories | 2d and 3d moving live fire targets, static training targets, thermal targets

# **Company Brief**

RAIDER Targetry is an Australian-based small business that specialises in advanced target systems for combined arms live-fire and live-simulation training. Our mobile moving target technology is the most versatile, configurable and adaptable moving target available today, and exclusively boasts our state-of-the-art on-demand active thermal IR surface technology.

Our systems are designed with the end-user in mind, and in most cases no special equipment or support vehicles are required to deploy and operate. RAIDER Targetry has the capability to design bespoke training systems of any size or complexity.

# RAIDER Mobile Moving Combined Arms Training Target System

Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required? • Yes

# Product Information

The RAIDER Mobile Moving Combined Arms Training Target is a turnkey training solution that adds realistic variable dynamic elements to all training exercises. Compatible with a majority of direct-fire and guided munitions, the RAIDER training system provides a semi-autonomous vehicle target that moves at speeds up to 40km/hr and can be operated at any suitable training area with little or no ground preparation.

Completely reconfigurable for any military or non-military vehicle profile, the RAIDER training system features unique and patented on-demand active thermal-IR target surface technology that generates realist vehicle thermal profiles that can sustain multiple direct hits with little or no performance degradation. The modular design ensures components can be easily replaced as needed, and our advanced Ground Control System allows a single operator to simultaneously coordinate movement of multiple targets from up to 20km away. The RAIDER training system packs into a standard 20ft shipping container for storage and relocation.

# Availability

# **REDARC Electronics**



Design | Engineering | ICT & Cyber | Test Equipment | Through-Life Support | Training & Education Vehicle Accessories

# **Company Brief**

REDARC Electronics is a technology-based company that designs, manufactures and provides patented, reliable and fully-integrated, portable, vehicular power solutions and customer centric after sales service. REDARC is based in South Australia.

Being a technology focused, advanced manufacturer their entire business model is based upon innovation.

# Dual Power Supply (DPS) In-Vehicle DC Power Supply



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

# **Product Information**

The DPS is a DC-DC power supply designed to run electrical loads. The input voltage of the DPS can be above, below or equal to the output voltage making it ideal for running equipment where specific load voltages or extreme voltage drop are an issue.

The DPS is also designed to isolate the main battery from the load when the vehicle is turned off to avoid flattening the vehicle's starter battery.

# Availability

# **Refuel International**



Design | Manufacturing | Research & Development | Test Equipment | Space Capabilities | Vehicles & Accessories

# **Company Brief**

A pioneer in the refuelling industry, Refuel International has positioned itself as a global leader in mobile aviation refuelling equipment. Refuel International is a provider of choice for major oil companies, into-plane operators and national defence forces.

With 50 years knowledge and experience as a solutions provider and OEM, Refuel International provides the highest quality product at a competitive price. Through collaboration with customers and suppliers they design and construct to customers specific needs while adhering to compliance and safety standards anywhere in the world.



### **Containerised Aviation Refuelling Modules**

Spares and Support Equipment Available?

• No

Australian Export Control Approval Required?
No

# Product Information

Refuel International's Containerised Refuelling System is built to standard ISO container sizes; complete with corner castings and lifting lugs integrated for lifting, loading and securing, enabling easy shipping and transport worldwide.

They have created these customisable containerised units through their vast experience in the global aviation refuelling industry; targeting specialised markets including defence and aerospace.

Refuel International designs and manufactures the Fuelling Module and its operating system, which is then integrated into a QHC containerised tank. The System consists of a customized 3° slope to a single sump from where water is pumped out using a diaphragm pump located on the fuelling module. The tank is fitted with access cover, pressure and vacuum vents and an electronic level sensing system. The content level of the bulk tank is displayed in litres via an LFD-6 mounted on the fuelling module.

# Availability

# **Rockwell Collins Australia**



Communications | Engineering | Intelligence, Surveillance & Reconnaissance | Optical | Through-Life Support Training & Education

# **Company Brief**

Rockwell Collins Australia (RCA) is a subsidiary of Collins Aerospace. The Australian operation focuses on the delivery of systems and products, optimised to meet the needs of the users we serve around the globe. A major focus of the Australian business has been the development of advanced hardware and software systems used by army and other specialist soldiers.

In order for users to be proficient in the use of these advanced systems, RCA have developed a range of innovative training solutions. New systems which make the most of evolving virtual reality technologies are also in development.

### **RealFires Joint Fires Simulator**



### Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• Yes

# **Product Information**

The RealFires Joint Fires Simulator was developed to train military Joint Fires Observer and Joint Terminal Attack Controllers to the highest level of proficiency.

Through the use of state-of-the-art technology and equipment, the simulator presents an effective alternative to the substantial resources, time and safety overhead of conducting live indirect fires and Close Air Support (CAS) training, using a range of military platforms.

One of the key functions of the simulator is to enable personnel to maintain their US approved JTAC accreditation to operate effectively in coalition environment, through the substitution of immersive simulation in place of live exercises.

This approach significantly reduces the costs associated with JFO and JTAC recurrent training, resulting in rapid return on investment, typically in the order of one to two years.

Also offered is the Persistent Surveillance System (PSS). Please refer to the company website for further information.

# Availability

# **RUAG** Australia

# Together ahead. **RUAG**

Design | Engineering | Manufacturing | Research & Development

# **Company Brief**

RUAG Australia is a fully vertically integrated organisation, focused on delivering excellent support, service and products to the defence and aerospace markets. Capabilities include precision manufacturing, maintenance, repairs and overhaul (MRO), metal treatment and finishing, supply chain management, engineering and research and development of advanced repair technologies.

RUAG Australia's approach is driven by innovation, underpinned by strong and sustained engineering competencies. Highly skilled, motivated and experienced staff combined with fully-accredited capabilities offers best value products and services, ensures reduced life cycle costs and maximises platform availability. RUAG Australia is committed to meeting customers' unique needs with reliable and flexible solutions.

# Additive Metal Repair Solutions – Supersonic Particle Disposition and Laser Additive Disposition



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• Yes

# **Product Information**

Additive Metal Repair Solutions is a technology for the rapid and inexpensive repair of corroded, worn and damaged components as opposed to repair by traditional methods or replacement. It is particularly relevant to expensive components and those with long repair or replacement lead times. This agility significantly improves aircraft and component return-to-service times.

Supersonic Particle Disposition (SPD) is a fully mature (TRL 9) technology whereby metallic powder is sprayed in an inert gas stream at high velocity to form a deposit on the substrate material. RUAG Australia holds MIL-STD accreditation for its SPD and is currently supporting fighter, helicopter, trainer, transport and maritime platforms. A mobile variant supports the "in theatre" application of the technology, developed under an international collaboration project.

Laser Additive Disposition involves a stream of a desired powder and wire being fed into a focused laser beam as it is scanned across the target surface, leaving behind a deposited coating fused to the substrate.

# Availability

# **Seeing Machines**



Artificial Intelligence | Autonomous Systems | Engineering | Intelligence, Surveillance & Reconnaissance Manufacturing | Optical | Research & Development | Training & Education | Vehicles & Accessories

# **Company Brief**

Seeing Machines, a global company headquartered in Australia, is an industry leader in computer vision technologies which enable machines to see, understand, and assist people. The machine learning vision platform has the know-how to deliver real-time understanding of operators through Artificial Intelligence (AI) analysis of heads, faces, and eyes. This insight enables Operator Monitoring Systems to monitor gaze and attention, as well as detecting drowsiness and distraction across multiple transport sectors.

Seeing Machines develops Operator Monitoring Systems for the Aviation, Defence, Automotive, Commercial Fleet, Rail and Off-Road markets.

# **Crew Training System**



### Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• No

# **Product Information**

Seeing Machines Crew Training System (CTS) supports qualified flying instructors with intelligent data to assist in the selection, training, and assessment of pilot candidates, as well as the ongoing training of qualified aircrew. The precision eye-tracking technology provides valuable insights into pilot scanning techniques, supplying instructors with an objective assessment of where pilots are focusing attention (i.e. selective and individual instruments, attitude, lookout, performance) and ultimately helps them optimise their scanning performance during key phases of flight.

Instructors can observe aircrew scanning behaviour in real-time in the Full Mission Simulator environment, as well as during brief and debrief. Instructors can readily observe instrument scans, workcycles, missed information, CRM attention distribution, and SOP adherence or deviation. Aircrew benefit from objective feedback through their eye-tracking replay, enabling them to achieve improved performance through evidence-based training.

CTS is available as an integrated retro-fit or forward-fit into any Flight Training Device or Mission Simulator.

# Availability

# Sentient Vision Systems



Artificial Intelligence | Autonomous Systems | Intelligence, Surveillance & Reconnaissance

# **Company Brief**

Sentient is a leading developer of Computer Vision and Artificial Intelligence software solutions for defence and commercial markets, based in Melbourne, Australia. Since 1999 we have specialised in imagery analysis, building practical software solutions that automatically detect and track small objects.

Actively used in the field of Intelligence, Surveillance and Reconnaissance (ISR), our solutions enhance situational awareness and support strategic decisions. Nearly 2000 solutions have been deployed by Army, Navy, Air Force, Marines, Coast Guards and Law Enforcement in over 30 countries.

# 

### ViDAR – Visual Detection and Ranging

Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

# **Product Information**

ViDAR is an airborne persistent wide area maritime search system that autonomously detects objects on the ocean surface and provides the operator with a detailed image of objects that other search methods often miss. ViDAR consists of single or multiple 9-megapixel sensors and on-board automation software designed to automatically detect objects on the ocean in real time.

The 9 megapixel sensors operate akin to an airborne radar, but in the visual domain, by sending objects detected to the operator for further analysis by the aircraft's primary sensor.

ViDAR is deployed with the Royal Australian Navy, Australian Maritime Safety Authority, US State Department, and US Coast Guard, and has been extensively demonstrated with UK Royal Navy and the European Maritime Safety Agency.

# Availability

< 3 months.

# Solutions from Silicon



Autonomous Systems | ICT & Cyber | Research & Development | Software Engineering

# **Company Brief**

Solutions from Silicon (SfS) is a specialised Defence software engineering company based in Sydney, Australia, established in 1994. SfS creates high quality custom software solutions for Defence customers.

Mine Warfare Tactical Command Software (MINTACS) is the world's leading Naval Mine Warfare Command Support System, customisable for use within mine warfare operations, and at maritime and joint forces headquarters.

### MINTACS - Mine Warfare Tactical Command Software



### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

Yes

# **Product Information**

MINTACS provides the Mine Warfare Force Commander with the latest technology to conduct both mining and mine counter-measures in today's complex maritime environment.

The key MINTACS modules are:

- MINTACS A comprehensive Tactical Command software suite used to plan missions, monitor tasking and conduct detailed assessment of mission progress and outcomes.
- MINTACS MWDC An extensive Mine Warfare Data Centre capability which provides the ability to manage a master database of all tactical and environmental data relevant to the Mine Warfare command.
- MINTACS PMA Incorporates leading edge Sonar Image Processing and automated Mine Target Recognition based on research conducted by Australian Defence Science and Technology.

# Availability

# Sonartech ATLAS



Autonomous Systems | Design | Engineering | Research & Development | Sonar & Acoustic Analysis Systems

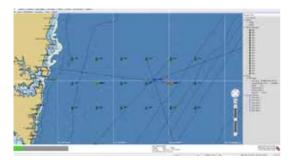
# **Company Brief**

With over 30 years of experience and a world-wide customer base, Sonartech ATLAS is a world leader in the design and development of acoustic processors, recording and analysis systems for submarines, surface vessels, aircraft, and shore and support facilities.

The product lines include Active Intercept and Ranging Sonars, Passive Sonars, Sonar Data Recorders, Sonobuoy Processors, Acoustic Analysis and Mission Replay Systems, and Digital Voice Recorders.

The leading export items include SOBIC—Sonar Analysis & Classification Support System, MRT—Mission Replay Tool for secondary acoustic analysis, Submarine self-noise monitoring systems, and Sonix—sonobuoy processors.

### Sonix Sonobuoy Processing System



### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

Yes

# **Product Information**

Sonix supports the simultaneous collection, recording, analysis, and display of the signals from sonobuoys to allow detection, localisation and classification of underwater threats by ASW units. The system has an airborne variant (Sonix-A) and a shipborne variant (Sonix-M).

The system receives, processes, displays passive and active acoustic data, and can support multi-static active search operations using coherent and incoherent sound sources.

Sonix can receive and process up to 64 channels of either analogue or digital sonobuoy data, from a range of buoy types. The processed data is displayed on appropriate displays including LOFAR, DEMON, Bearing Time History (BTH) and Frequency Azimuth (FRAZ). The operator is provided suitable analysis tools, which include:

- Frequency/range/bearing/time measurement cursors
- Multi-point dividers
- Closest Point of Approach (CPA) tools
- Lloyds Mirror calculators.

A graphical representation of the current tactical situation including own platform location, sonobuoy position and bathymetric seafloor data is incorporated.

# Availability

6-12 months. Designed and manufactured to order.





Autonomous Systems | Design | Engineering | Field Equipment | Humanitarian | Logistics | Manufacturing Research & Development | Robotics | Ship Building | Space Capabilities | Through-Life Support Training & Education | Vehicles & Accessories

# **Company Brief**

SPEE3D is making metal parts repair and replacement easier. SPEE3D manufactures the world's first metal 3D printer to leverage cold spray, this is a patented process that enables significantly faster, cost-effective and more scalable production than traditional metal printing.

Headquartered in Melbourne, Australia, SPEE3D is committed to helping Defence print their parts, their way, when they need them.

### LightSPEE3D 3D Metal Printer



# Spares and Support Equipment Available? • Yes

Australian Export Control Approval Required?

• No

# **Product Information**

LightSPEE3D is a world first metal based 3D printer utilising cold spray. The technology manufactures fast, low-cost, near net shape parts suitable for Defence repair and replacement applications.

Rather than using heat to melt metal powders, SPEE3D's patented technology uses supersonic deposition in which a rocket nozzle accelerates air up to three times the speed of sound. Injected powders are deposited onto a substrate that is attached to a six-axis robotic arm.

Also offered is the SPEE3Dcell and WarpSPEE3D 3D Metal Printer. Please refer to the company website for further information.

# Availability

# **Stealth Electric Bikes**



Design | Intelligence, Surveillance & Reconnaissance | Manufacturing | Vehicles & Accessories

# **Company Brief**

Stealth Electric Bikes offer a range of solutions for combat personnel recovery, reconnaissance and rapid deployment when speed, stealth, endurance, and flexibility of ground operator movement is required. As the turnkey solution for tactical short to mid-range land mobility, they provide an energy efficient, negligible sound and heat signatures, low profile, all-terrain system for individual soldiers.

In today's non-linear and non-contiguous field environment, lightning fast tactical ground movement is vital. With over 2,000 in circulation globally, Stealth Electric Bikes have proven to be a reliable, safe, silent and tactical solution.



### Lightweight Expeditionary Electric Personal Platforms (LEEPP)

Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?
No

# **Product Information**

The Stealth Electric Bikes "Light Expeditionary" B-52 combines the world's most powerful and silent hybridelectric power train with a reinforced, aircraft grade chassis to produce a peerless riding experience. Its pedal operated nine speed sequential gearbox can be used to assist its brushless DC hub motor in situations where high torque and fast acceleration are required, or as a range extender for long distance missions.

Capable of over 80 kmph with a range of up to 80 kilometres, the B-52's tuneable, long travel suspension and high performance hydraulic disc brakes excel at rapidly traversing the roughest terrain while carrying heavy payloads and maintaining an ultra-low signature.

There are an additional 3 different light expeditionary user models available, (with or without pedals) providing mission specific capabilities. Please refer to the company's website for more information.

# Availability

# **STOREMASTA**

# STOREMASTA

Design | Manufacturing

# **Company Brief**

STOREMASTA is an organisation of dangerous goods experts that specialise in providing end to end dangerous goods storage and management solutions. We deliver compliance through the execution of our dangerous goods management methodology.

We also manufacture a large range of dangerous goods storage products such as Dangerous Goods Storage Containers, Flammable Liquid Storage Cabinets, Gas Cylinder Stores, Explosive Storage Cabinets, Temperature Controlled Dangerous Goods Stores, Spill Containment Bunding and Lubrication Stations.

All our Dangerous Goods Storage Products are manufactured in our Australian based facility.



### **Relocatable Dangerous Goods Storage Containers**

Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• Yes

# **Product Information**

STOREMASTA manufactures a range of hazardous goods containers that are engineered to comply with the Australian Standards. Each chemical container is fabricated in full conformance with the Australian Standard that outlines the construction requirement for the hazardous chemical intended to be stored within the container.

STOREMASTA has four different types of DG containers. This includes mini-series containers, chemical drum containers, walk in dangerous goods storage containers and bonded chemical containers for the storage of intemediate bulk containers.

# Availability

# **SUPASHOCK**



Engineering | Manufacturing | Test Equipment | Through-Life Support | Vehicles & Accessories

# **Company Brief**

Supashock is a world-class producer of advanced mobility and motion systems for logistics, combat, utility, and artillery vehicles, with our systems capable of operating in passive, active or autonomous modes. Supashock incorporates designs that improve mobility, survivability, and efficiency of defence vehicles in field operations. Supashock's capabilities enable the concept, design, validation and manufacture of advanced systems that provide the Defence Force with an advantage in operations.

# Advanced Motion Technology



# Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• Yes

# **Product Information**

The Advanced Motion Technology system was developed in conjunction with Rheinmetall MAN Military Vehicles to increase vehicle performance, ride comfort and occupant safety by significantly decreasing the chance of vehicle rollovers. The systems is a form fit function solution that was initially developed for the HX series vehicles being delivered to the Australian Defence Force under Land121 and can be developed to suit a wide range of vehicles. This has already been extended to the Fuchs Armoured Fighting Vehicle and Lynx KF41 combat vehicle.

The Active Suspension system has an integrated Health Usage Monitoring System that monitors the vehicles use thereby significantly reducing the potential of any component failure in the field.

# Availability

3-6 months. Designed and manufactured to order.

# Tectonica Australia



Design | Manufacturing

# **Company Brief**

Tectonica is a leading supplier of portable power and data solutions for a wide range of military applications and has over 15 years of experience in developing integrated power and data management and distribution systems for the dismounted soldier. Tectonica has specialist expertise in the development of highly efficient power conversion, protection, management and distribution electronics, and the integration of legacy equipment, on the soldier and in military vehicles.

### **BANTAM Power Scavenger**



- Spares and Support Equipment Available? • Yes
- Australian Export Control Approval Required?
   Yes

# **Product Information**

The Power Scavenger lets the modern combat soldier simultaneously recharge a central battery and power connected devices. Soldiers can connect any power source to the hub to recharge their battery. A Maximum Power Point Tracker lets you get power from sources such as solar mat, vehicle, primary or rechargeable batteries, mains power and virtually any power source available on the battlefield. Its unique, 'Z' shape design arranges 3 ports around the hub in a way that cleverly cradles bulky cable connectors and gets rid of those uncomfortable protrusions.

The BANTAM Power Scavenger has been designed specifically for the combat soldier that needs a power management capability but doesn't want the burden of a complex and bulky multi-port power manager and USB hub. It enables the use of a central battery to power your Combat Net Radio, GPS receiver, and Android end user device with lots of power to spare.

# Availability

< 3 months. Designed and manufactured to order.

# **Textron Systems Australia**

**TEXTRON** Systems

**AUSTRALIA** 

Autonomous Systems | Design | Engineering | Intelligence, Surveillance & Reconnaissance | Manufacturing Through-Life Support | Training & Education

# **Company Brief**

Textron Systems Australia designs, manufactures and services a range of unmanned aircraft systems (UAS). Based in Melbourne, Australia, the company's employees are experienced in all areas of unmanned aviation — providing a single resource for customers seeking either systems or operational services.

# Aerosonde® Small Unmanned Aircraft System (SUAS)



Spares and Support Equipment Available? • Yes

Australian Export Control Approval Required?

• Yes

# **Product Information**

The Aerosonde Small Unmanned Aircraft System (SUAS) offers superior reliability and multi-mission performance in its class. Designed for expeditionary land and sea-based operations and equipped for simultaneous day-and-night full-motion video, communications relay, signals intelligence and a customer selected payload in a single flight, the Aerosonde SUAS delivers reliable, multi-mission performance in a class by itself.

Aerosonde SUAS is field-proven with more than 360,000 flight hours, including desert heat and Arctic cold. The aircraft offers payload power for true multi-mission flexibility. Textron Systems offers full system sales with training services, turnkey fee-for-service operations, and a hybrid business model.

Textron Systems has enhanced the system's flexibility even further with the Aerosonde HQ, a runway-independent configuration that uses Hybrid Quadrotor technology to achieve vertical takeoff and landing (VTOL). Combined with the Aerosonde system's proven performance and benchmark-setting reliability, the Aerosonde HQ brings unparalleled levels of mission capability and flexibility.

# Availability

# **Thomas Global Systems**



Communications | Design | Electronic Warfare | Engineering | Field Equipment | ICT & Cyber Intelligence, Surveillance & Reconnaissance | Manufacturing | Optical | Research & Development | Test Equipment Through-Life Support | Training & Education | Vehicles & Accessories

# **Company Brief**

Thomas Global Systems is an industry leader in the design, production and support of innovative electronic systems solutions for Aerospace and Defence applications. Since 1956, the Company has gained global recognition for practical innovation and dependability.

Thomas Global delivers expertise in advanced cockpit displays, armoured vehicle electronics and mission system solutions supported by dedicated service and support teams operating around the world. The company's key facilities are located in Sydney, Australia and Irvine, California.

### **Ruggedised Optronic Displays**



### Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

Yes

# **Product Information**

Thomas Global, utilising its valued partners, has supplied ruggedised displays for the US Army and USMC.

These displays utilise the latest technologies including:

- Flexible free-form single element (F2SE Optics)
- CRT, LCD and Micro projection technologies
- Applications for M1A1, M113, ASLAV, AAV, LAV, LRAS, Bradley and TOW.

These 2nd and 3rd Gen FLIR compatible display provides superior image quality combining very high pixel densities, HD resolution AMLCD, an RGB light source for a rich colour gamut, relaxed eye infinity focused optics and high ambient light readability.

Incorporating Thomas Global's Adaptive Display ArchitectureTM, the display solution is fully configurable to handle both legacy (RS-170) and current video (HDMI, SDI) standards.

Thomas Global also produce TFD Series LCD Flight Displays, which are plug-and-play active-matrix LCD replacements for legacy cathode ray tube (CRT) flight deck displays. Please visit the website for further information.

# Availability

# Titomic



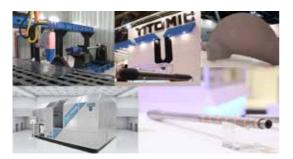
Design | Engineering | Logistics | Manufacturing | Research & Development | Robotics | Space Capabilities Vehicles & Accessories | Weapons & Ammunition

# **Company Brief**

Titomic (ASX:TTT) is an Australian public company specialising in digital manufacturing solutions for industrial scale metal additive manufacturing using its patented Titomic Kinetic Fusion® (TKF) technology. TKF provides unique capabilities for producing commercially viable additively manufactured metal products competing directly with traditional manufacturing methods.

Titomic provides OEM production and R&D services from TKF Smart Production Bureaus to global aerospace, defence, shipbuilding, oil and gas, mining and automotive industries. Titomic also provides an extensive range of metal powders for 3D printing especially titanium and super alloys along with sales and support services for TKF production systems.

#### Titomic Kinetic Fusion ®



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

Yes

# **Product Information**

Titomic Kinetic Fusion (B) is a patented additive manufacturing process which involves spraying metal powders at supersonic speeds to form a deposit on the substrate. Large structures are created without heat-related oxidation or distortion. Current build envelope is  $9m (L) \times 3m (W) \times 1.5m (H)$  and rotational build of  $3.5m (L) \times 2m$  diameter.

Advantages include reduced manufacturing and downtime, dissimilar metals can be fused together in one part for engineered properties. TKF can utilise a wide range of metal powder grades.

Titomic is currently supporting aerospace, maritime, weapons and soldier platforms.

# Availability

# Trakka Systems



Manufacturing | Optical

# **Company Brief**

Trakka Systems is renowned for its leading innovation in Critical Vision Technology. The Trakka Optics division has been launched to provide more of the very best in optical advantage, to help the individual military, law enforcement and other first-responder professionals better "to see, to save and protect".

Born out of the integration of our sister company Byfield Optics into the Trakka Systems Group, Trakka has spent a number of years investing in the development of a unique range of patented optical products resulting in our world first embedded polarised binoculars.

### TB-200 (Recon) 10x42 and TB-300 (Trakka) 8x56 Polarised Binoculars



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

# **Product Information**

Trakka's patented polarised binoculars offer the same advantage as polarised sun glasses; they block out reflected light from surfaces such as water, windows and land allowing the user to see a more defined, and clearer image with returned depth perception, providing a greater tactical advantage to a user no matter what environment they are operating in.

Trakka's ground-breaking technology is incorporated within the binocular optical train, eliminating image distortion issues that have been encountered in the past when using filter caps. This technology can be transferred to other types and designs of optical visual enhancement apparatus so as not to restrict the type of equipment utilised by varying agencies.

# Availability

# Trellis Data



Artificial Intelligence | Autonomous Systems | Electronic Warfare | ICT & Cyber | Intelligence, Surveillance & Reconnaissance Logistics | Manufacturing | Medical | Research & Development | Robotics | Space Capabilities

# **Company Brief**

Trellis Data is a fully Australian owned company, located in Canberra, ACT. Trellis Data provides world leading machine learning capability as an Australian sovereign asset, to further Australia's capability and to provide leading machine learning technology to Australia and its allies.

The advanced machine learning platform, called the Trellis Intelligence Platform (TIP) includes global leading machine learning technology, as well as the first fully explainable deep neural networks, enabling our customers to trust every decision the TIP makes.

### Trellis Intelligence Platform (TIP)



#### Spares and Support Equipment Available?

• No

Australian Export Control Approval Required?

• Yes

# **Product Information**

Trellis Data has created a world leading advanced machine learning platform – the Trellis Intelligence Platform (TIP). The TIP can deliver trusted 'decision making at the sensor' (DMATS) for intelligence, surveillance and reconnaissance at land, sea, air and space.

The TIP learns from unstructured data (such as documents and social media), video, sound, and any other data source. It has the world's most advanced deep learning methods for optimal results and can be deployed on devices as small as a Smart Watch. Finally, it has the world's first deep learning explainer that provides trusted explanations of every decision it makes.

# Availability

# **Trimcast Products**



Logistics | Manufacturing | Through-Life Support

# **Company Brief**

With over 40 years' experience in the design and manufacture of engineered military-spec protective case solutions, Pelican-Trimcast produces a range of bespoke solutions to house and protect specialised high-tech equipment for the military in Australia and other NATO-aligned military customers around the world, including weapons, weapons systems, deployable IT and medical equipment, rotable components and critical spares for a wide range of platforms across Air, Land, Sea and Joint Systems domains.

### **Engineered Protective Packaging Solutions**



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

# **Product Information**

Pelican-Trimcast is an Australian designer and manufacturer of standard and bespoke high-performance engineered packaging solutions to provide maximum protection of the inner payload throughout any deployment or storage cycle, including shock-mitigating and vibration-attenuating internal systems to fit within the weatherproof protective outer cases, with the ability to produce single unique case solutions through to high volume LRIP and FRP.

Containerised Solutions for:

- Weapons and weapons systems
- Rack Mount Cases for deployment of IT and Sensitive electronic equipment
- Missile launch systems and missiles
- C4I assets
- Trunklockers and Food Storage
- Deployable Health assets
- CBRNE assets
- Modular container systems
- Rotable platform and system components / critical spares in the AIR/LAND/SEA domains
- Engineering Equipment and Combat support systems
- Radar and sensor assets.

# Availability

# **UUV** Aquabotix



Autonomous Systems | Design | Intelligence, Surveillance & Reconnaissance | Research & Development | Robotics

# **Company Brief**

Aquabotix is a leader in the emerging naval swarm robotics market. We specialise in the design and development of micro-sized autonomous surface and underwater vehicles with swarming capabilities for littoral applications.

### SwarmDiver



Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

• No

### **Product Information**

SwarmDiver is a micro-sized unmanned surface vehicle with swarming and diving capabilities. It is deployable from the shoreline or any platform of opportunity, and is easily controlled using Aquabotix's proprietary mission planner.

A single operator can control up to 100 vehicles simultaneously as a single coordinated entity from a safe standoff distance. This product is ideal for conducting near-shore, shallow water, and surf zone bathymetric line surveys and bottom type assessments as well as deriving sound velocity profiles in these challenging environments.

# Availability

# Universal Site Monitoring



Communications | Field Equipment | Through-Life Support

### **Company Brief**

Universal Site Monitoring (USM) is an Australian based company who designs and develops advanced safety monitoring devices. USM is passionate, committed and always strive to do better than what was achieved yesterday, creating a safer work environment for people around the world. With a small team of technological experts based in Darwin, Northern Territory, USM is perfectly situated to service Australia's military sector as well as the global industrial market. Devices are individually custom configured to suit every operation, to facilitate Australia's most important assets in returning home every day.

### Personal Safety Monitor Defender (PSM Defender)



Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• No

# **Product Information**

The Personal Safety Monitor (PSM) Defender is a device designed to be worn by the operator, the personal safety monitor combines multiple health and safety features including:

Key features include:

- Removeable Lithium Ion rechargeable battery long life battery.
- Geofencing alerts to both the safety operator and field operator
- Real-time communications, GSM, Wireless Mesh, GPS location
- Real-time location and metrics data streaming to the Universal Data Interface.
- Live communications (Cellular), Push to Talk short burst messaging (Mesh)
- Active alerts and situation monitoring
- Appropriate proactive incident response.

Please refer to the Universal Site Monitoring website to see other products including the Universal Data Interface (UDI), Auto Bump Calibration Dock (ABCD), Global Asset Monitor (GAM), Biometric Monitor (BioMon), Intrinsically Safe Mesh Access Point (IS MAP), Personal Safety Monitor Hero 715 (PSM Hero 715) and Personal Safety Monitor Hero 825 (PSM Hero 825).

# Availability

# Varley Group



Design | Engineering | Manufacturing | Research & Development | Vehicles & Accessories

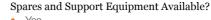
# **Company Brief**

Varley Group was established in 1886 and is one of Australia's oldest and most advanced engineering and manufacturing companies.

Varley's current customer base is wide-ranging across an international stage, from individuals to governments and global corporations. Similarly, the products and services offered by Varley are vastly diverse.

Current manufacturing projects include defence ambulances, stores and maintenance vehicle modules, deployable secure facilities, aircraft support equipment, custom emergency service, health, education and rescue vehicles and recreational electric vehicles, power plant restorations and rail maintenance works.

#### Deployable Double Sided Expandable Secure Facility



• Yes

Australian Export Control Approval Required?

• Yes

# **Product Information**

The Deployable Double Sided Expandable Secure Facility has been designed to provide a secure and environmentally protected workspace for mission planning, crew briefing, intelligence officers and ICT system administrators. It has a logistic footprint of an ISO 1C container (20 ft. long, 8 ft. wide and 8 ft. high) and has been designed to withstand military transport and handling conditions.

The Deployable Double Sided Expandable Secure Facility is made of laminated panel construction to achieve acoustic dampening and thermal insulation and it can be fitted with heating, ventilation and air conditioning, dimmable LED lighting, 415VAC 3 phase power input, 240/110 VAC internal power distribution and Type 1A security and electronic access controlled system for operation as a transportable SCIF.

# Availability

3-6 months. Designed and manufactured to order.

# Versalux Lighting Systems



Design | Engineering | Manufacturing | Through-Life Support | Task Related Lighting Systems

### **Company Brief**

Versalux, established 1979, is a service-oriented organisation that engineers, develops, manufactures and delivers quality lighting systems with innovative technology for demanding markets. Delivering lighting solutions to all major Navy platforms (OPV, LHD, AWD, ANZAC, AOR, HSV, Choules), Marine, Mining, Oil and Gas (on- and offshore), and Hospitals.

The portfolio includes, exterior, interior, underwater, explosion proof, medical, NVG-Lighting, Helideck (HVLAS) systems, BIOGEN-lighting Systems, and HCL-Systems.

#### Intelligent Lighting Systems



#### Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• No

# **Product Information**

Versalux designs and supplies bespoke lighting systems for all application and tasks related to Navy vessels. General lighting for indoor and harsh outdoor environment, navigation and signalling light, night adaptive light for night missions or night vision goggle (NVG) for dark vessel operations.

The system is designed to support the latest health and safety standards, Human Focused Lighting and supports alertness and wellbeing of the crew. Integration into IPMS or ships' managements system is also available.

# Availability

3-6 months.

# W&E Platt



Design | Engineering | Manufacturing | Research & Development | Vehicles & Accessories

### **Company Brief**

W&E Platt specialises in the design, manufacture, installation and ILS of weapon mounts for the military vehicles and naval vessels. Incorporated in 1980, W&E Platt remains in business by listening to and understanding customers' needs. With over 35 years of combat focused design and manufacturing experience, W&E Platt weapon mounts constantly deliver performance and reliability when it matters most and that is on the battle front.

Platt weapon mounts are designed using in-house Solid Edge 3D CAD and FEMAP, which enables the company to offer innovative and broader solutions including rapid prototyping and testing.

#### **Platt Weapon Mounts**



#### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?
• Yes

### **Product Information**

W&E Platt weapon mounts are combat proven products which have been tested in the battle fields.

We supply Swing Mounts, Skate Mounts, Rail Mounts, 40-50 Soft Mounts, Ring Mounts, Pedestal Mounts and Marine Mounts.

The Platt Ring Mount is a one-man lightweight, low profile and versatile weapon station designed to suit variety of military vehicles. The system is fully scalable to meet the needs of modern warfare and has proven to be a reliable and highly functional system in the most demanding and diverse operational conditions. The portfolio includes MR, FW and TD series capable of mounting various weapon platforms.

# Availability

# Wedgetail Industries



Weapons & Ammunition

# **Company Brief**

Wedgetail Industries are an Australian based manufacturer of suppressors, small arms and accessories.

Wedgetail Industries builds products for the real world, combining market data and customer feedback to define a set of performance based targets.

#### **Ninox Suppressors**



Spares and Support Equipment Available?
• Yes

Australian Export Control Approval Required?
• Yes

# **Product Information**

Wedgetail Industries Ninox suppressors use advanced technology and innovation to provide advanced signature reduction. All suppressors are built from temperature stable alloys ensuring maximum durability, light weight and minimal point of impact shift. Suitable for a wide range of small arms and rated for automatic fire.

# Availability

# The Whiskey Project



Autonomous Systems | Design | Manufacturing | Ship Building | Through-Life Support

### **Company Brief**

The Whiskey Project is an Australian veteran owned business, building a product line of operator-focused watercraft that provide optimal performance and protection for those who risk their lives in tactical maritime environments.

The Whiskey Project boats – the product of collaboration between experienced military operators and world class maritime engineers, architects and innovators – are designed for contemporary maritime missions.

The Whiskey Project is the next generation of tactical watercraft.

#### Whiskey Alpha 85



#### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required? • Yes

### **Product Information**

Whiskey Alpha is a safer, more versatile tactical boat, improving the operating environment, performance and advantage of maritime personnel. Decades of Naval and Special Operations experience underpin this operator-focused design which integrates world-leading innovations and technologies with unique capability-optimising design features.

No maritime environment is ever the same, which is why The Whiskey Project boats can be easily reconfigured to meet individual situational requirements. Fit-for-purpose versatility, mission-centric design features, safety advancements, and new technologies are paired with a modular system to optimise human performance, operational capability, efficiency, access, and fleet compatibility and interoperability.

Available in 6m – 10m, Whiskey Alpha has redefined the size:effect ratio with significantly increased functional deck space and payload capacity.

Creating the advantage was the genesis of Whiskey Alpha's design and integrated technologies, whilst sustainable innovation maintains the advantage via a future fleet-fit lens and an optimal platform for autonomous systems and future warfare capability.

# Availability





Autonomous Systems | Design | Engineering | Intelligence, Surveillance & Reconnaissance Manufacturing | Research & Development | Robotics | Space Capabilities | Through-Life Support Vehicles & Accessories | Weapons & Ammunition

# **Company Brief**

XTEK is committed to providing the latest technology and innovative products to protect those who protect us. From Defence, Law Enforcement, First Responders to emergency services, XTEK delivers state of the art solutions to protect and sustain personnel, equipment and assets at the frontline.

XTEK designs, integrates, manufactures, services and supports armour, tactical equipment, tactical robots and small unmanned aerial systems for its customers. Established in 1978 and listed on the ASX, XTEK has been supporting service men and women for over 40 years from its headquarters in Canberra, Australia and dedicated development and manufacturing site in Adelaide, Australia.

### **XTarmour**



### Spares and Support Equipment Available?

Yes

Australian Export Control Approval Required?

• Yes

# **Product Information**

XTarmour is XTEK's armour product line, including:

- Ballistic Rifle Helmet
- Ballistic Hard Armour Plates (HAPs)
- Ballistic and stab Soft Armour.

XTarmour, uses the latest materials and process technologies to offer the lightest Level 3 through Level 4 (NIJ) body protection. XTarmour can be made in custom sizes, shapes and ordered in niche to large volumes.

Also offered is the XTatlas. Please refer to the company website for further information.

# Availability

# ZCG Scalar Antennas



Communications | Design | Manufacturing | Research & Development

# **Company Brief**

ZCG has a proven record of providing high quality, competitively priced antennas and RF accessories for all industries and applications, on time and on budget. ZCG has a general engineering workshop, CAD design, development facility and manufacturing plant on one site providing the capability necessary to offer one off custom design antennas to high volume production runs.

### **B55SS Airband Antennas**



Spares and Support Equipment Available?
• Yes

Australian Export Control Approval Required?
No

# **Product Information**

Suitable for mounting to lightweight towers, the B55SS monocone covers the entire Air Band 118-137MHz, making this the ideal base station antenna for airports where a variety of channels are used. With an omnidirectional radiation pattern and integral ground plane, this monocone produces a low angle of radiation making it comparable with centre-fed dipoles.

# Availability

# Zone Products Australia



Artificial Intelligence | Autonomous Systems | Communications | Counter-UAV

### **Company Brief**

Zone Advanced Protection Systems is a developer of IP based, high security interoperability software with a focus on counter drone technology and large scale command and control C2 deployments.

The company is also a distributor of mission-critical electronic security and surveillance solutions from some of the world's leading manufacturers.

Complimenting Zone's software developed solutions, the company supplies and supports products from world leading manufacturers of electronic security devices into defence, critical infrastructure, power and utilities and border patrol as well as remote unmanned monitoring of stand-alone sites and Counter Drone technologies.

#### **Arbitor**<sup>™</sup>



#### Spares and Support Equipment Available?

• Yes

Australian Export Control Approval Required?

Yes

# **Product Information**

Arbitor<sup>™</sup> Physical Security Information Management System (PSIM) is a scalable security solution management platform which combines the visual and functional outputs of the sub-systems it integrates into one common operating picture. Arbitor<sup>™</sup> gives operators complete control of multiple security systems through one portal, providing enhanced situational awareness and the capability to respond faster and more effectively.

ArbitorShield<sup>™</sup> can be integrated into Arbitor<sup>™</sup>, it is a complete turnkey web based CUAV platform for the detection and countermeasure of all hobby and sports drones/UAV's. ArbitorShield<sup>™</sup> uses innovative RF techniques in an intelligent series of mitigation operations.

# Availability

# **Section Four**

# Australian Defence Industry – Services

A Defence Export Permit may be required for the products and services shown on each of the following pages.



# Advanced Manufacturing Alliance – CDU

CHARLES DURIVERSITY

Design | Engineering | Manufacturing | Research & Development | Training & Education

# **Company Brief**

The Advanced Manufacturing Alliance (AMA) was founded by Charles Darwin University (CDU) and SPEE3D to progress the research and advancement of advanced manufacturing technologies with strategic focus on the Australian invention of SP3D (supersonic 3D deposition). AMA provides training, design development, and customised part fabrication using the SP3D technology.

The SP3D technology has substantial scope to build on the following areas for defence:

- Self-sustainability
   – equipment repair, site repair and part replacement through on-site manufacturing.
- Mobility and efficiency- print parts on demand instead of stocking spares.
- Obsolescence management- printing of legacy parts or creation of a digital library.



### Training, Design Development, and Part Fabrication

# Service Information

The Advanced Manufacturing Alliance installed the world's first LightSPEE3D machine and has rapidly gained extensive experience in operation and part production with the technology. AMA offers outside industry access to SPEE3D's potentially transformative technology through both training and part fabrication.

Flexible options are available for training on the technology, from a standard 3 day course to customised content.

Rapid prototyping, digital designs, print blanks and customised part fabrication for one-off to mini production runs can be commissioned. Services such as design development, testing and research can also be arranged. AMA will work closely with the customer throughout the scoping, build and fabrication process to ensure quality and satisfaction in the products and services delivered.

# Availability





Communications | Electronic Warfare | Engineering | Intelligence, Surveillance & Reconnaissance | Logistics Through-Life Support | Test & Evaluation, Certification & Airworthiness, Program Management

### **Company Brief**

AeroPM is a 100% Veteran owned and led professional services consulting firm that engages across the private, government and Defence sectors. Based in Canberra, AeroPM works with clients Australia-wide to deliver a range of complex technical projects, products and outcomes. AeroPM personnel are highly qualified and customer focused authentic leaders, trained to perform in complex strategic environments. Through its people, AeroPM aspires to offer your program inter-disciplinary and cross-functional teams or individuals.

With a significant portion of personnel having a Defence background, AeroPM has a deep understanding of Defence sector clients and the environment in which they operate.

### **Professional Services**



# Service Information

AeroPM places high performing talent into your key roles across the Air, Land, Joint and Maritime Domains/Environments. AeroPM provides the strategic and tactical skills to ensure project success. AeroPM has significant experience supporting major capital acquisition projects and complex sustainment products within Defence.

AeroPM's personnel are experienced across the entire Capability Life Cycle stages and boasts a full range of capabilities across:

- Program & Project Managers: Certified Chartered Professional Project Managers use contemporary methodologies to introduce and integrate new capabilities into service.
- · Project Engineering Managers: Certified Chartered Professional Engineers provide Aerospace, Avionics, Systems,
- and Software Engineering, as well as Engineering Management within complex and dynamic programs.
- Test & Evaluation Managers: Long course qualified T&E managers provide the full suite of independent verification and validation services across multifaceted programs.

Other Services include Certification Managers, Commercial Managers, Capability Definition, FIC and Stakeholder Coordination and Integrated Logistics Support.

# Availability

# Asia Pacific Aircraft Storage



Autonomous Systems | Communications | Design | Engineering | Manufacturing | Engineering Aircraft maintenance and storage

### **Company Brief**

Asia Pacific Aircraft Storage (APAS) provides dedicated aircraft storage and part-out services for the Asia Pacific market. All maintenance activities are carried out pursuant to Part 145 approvals, held under EASA, FAA, BCAA, CASA and CAAS. APAS has stored and maintained B737, B767, B777, A320 and A330 aircraft on behalf of major international airlines and lessors.

APAS also provides end-of-life parting-out of aircraft and disposal. The APAS Group has developed a cloud based SaaS maintenance management solution for organisations undertaking aircraft maintenance.

#### Aircraft Storage, maintenance and part-out



# Service Information

The APAS Group provides specialised aircraft storage, maintenance and part-out services to the Asia Pacific aviation industry. The APAS Facility is located in Alice Springs, Northern Territory, in a low humidity environment essential to the preservation of aircraft asset value and continued operational capability.

Aircraft are maintained by experienced licenced aircraft engineers, in programmes enabling aircraft to be rapidly returned to service and operation. In the event of the asset reaching end-of-life, APAS undertakes the removal of high value components for re-use on cross compatible aircraft type.

# Availability

# Aspen Medical

# aspenmedical

Field Equipment | Design | Humanitarian | Logistics | Medical

# **Company Brief**

Aspen Medical is a global provider of innovative and tailored healthcare solutions. Aspen can provide a scalable and agile solution, from deploying a single nurse or paramedic through to a full spectrum deployable field hospital capability with field medical training services, ambulances, aeromedical evacuations and a full complement of clinical staff. Aspen Medical specialises in providing healthcare in remote, challenging and austere environments.

Services offered include:

- Primary healthcare
- Emergency healthcare
- Aeromedical evacuation (AME)
- Deployable mobile hospitals (Role 1-3)
- Specialised military medical training
- Occupational healthcare
- Environmental and public health
- Dental and allied health
- Government health programs
- Disaster and humanitarian response capability.

#### **Outsourced Healthcare Solutions**



### Service Information

Aspen Medical offers Defence clients a turnkey field or garrison healthcare solution which can include facilities, equipment, staffing, medical evacuations, training, consultancy, environmental and public health services. Defence has been their client for over 15 years; both in Australia and overseas.

Their significant experience in providing complete deployed healthcare services to military clients both in conflict and disaster zones, as well as in peace time, ensures supply of fit-for-purpose solutions with rapid execution, delivered in concert with military logistics infrastructure.

Aspen Medical capabilities include:

- Deploying highly trained medical and specialist personnel with field experience for short and long term durations.
- Establishing temporary soft or hard-skinned medical facilities, including equipment, to any location around the world.
- Developing and delivering a variety of military-centric healthcare training packages, including combat first aid training, care of the battle casualty training, CBRNE response, and customised programs.
- Providing commercial charter or dedicated air ambulance evacuation services globally.

# Availability

# Australian Target Systems



Design | Engineering | Research & Development | Robotics | Through-Life Support | Training & Education

### **Company Brief**

Australian Target Systems (ATS) is one of Australia's most experienced live fire target systems business, with a history that dates back to the 1950's. Today ATS is a dominant provider of live fire target systems to the Australian Defence Force. In the past five years they have expanded significantly to deliver their proven expertise to a wider international customer base. This includes military, police and other government organisations that seek to evolve their capabilities to meet the demands of an increasingly lethal and complex threat environment.

#### Live Fire Capability Systems Integrater



### Service Information

The Capability Systems Integrator (CSI) supports the client in the analysis, development, and implementation of plans, policies, and procedures associated with live fire training ranges. The CSI facilitates the development and management of the training facility sustainment plans; and provides integration of training facility operations and maintenance, and development tools for facility scheduling, qualification and logistics management.

The CSI provides program management services, focusing on operations, maintenance and management as part of a holistic, outcome-based solutions; and provides training systems integration, necessary to ensure the client achieves a fully integrated outcome. The CSI integrates delivery of sub-contracted services for the delivery of live fire, dry fire, explosive, simulation training and support facilities for the client.

# Availability





Autonomous Systems | Communications | Design | Engineering | ICT & Cyber | Intelligence, Surveillance & Reconnaissance Manufacturing | Research & Development | Through-Life Support

### **Company Brief**

AVI specialises in the development, manufacture and delivery of trusted communications systems including switches, routers, computers, software-defined networks and sensitive components for defence and government. Complete in-house design and manufacturing in AVI's state-of-the-art, high assurance facilities guarantees traceability and the ability of the systems to perform and thrive in harsh and hostile environments.

AVI also boasts an agile product development process that brings together emerging technologies, innovation and industry standard to provide clients with custom built solutions.

AVI has been proudly providing leading-edge networking solutions to a global market since 1988 and continues to push research and development to deliver robustly networked communications systems for improved mission effectiveness.

#### Secure Communication Solutions



# Service Information

AVI's tactical networking solutions provide the right data, to the right place at the right time. AVI's communication technologies include specialised hardware and software systems developed to enhance the capability and performance of existing networks and ensure optimal security of sensitive data.

AVI provides highly secure communication capability to stationary and mobile network nodes for trusted performance in critical situations. AVI's unique software solutions optimise battlefield data tunnelling and facilitate remote communications management. The AVI Operating System (AVIOS) provides a platform that is simple to configure, empowering the end user. AVI networking protocols are compatible with common networking hardware and software providers for seamless integration.

AVI is led by a team of specialists to deliver advanced communications solutions that are designed, engineered, manufactured and assembled completely within Australia. AVI also provides training and through-life support.

# Availability

# **Ballistic & Mechanical Testing**



Design | Engineering | Manufacturing | Research & Development | Test Equipment | Through-Life Support Vehicles & Accessories | Weapons & Ammunition | Product Testing | Environmental Testing | Ship Building

### **Company Brief**

Ballistic & Mechanical Testing (BMT) is a 100% Australian owned and operated company specialising in ballistic testing and certification of bullet resistant materials, non-destructive (X-Ray) testing of body armour plates and compliance for manufacturers and end-users.

BMT is NATA accredited to ISO17025:2018 and a Defence Recognised Supplier.

### Independent Ballistic Testing of Armour



### Service Information

BMT offers test, evaluation and certification services of armour and armour systems used in land combat vehicles, combat clothing, body armour, air and sea.

# Availability

# **BCT Solutions**



Electronic Warfare | Engineering | Field Equipment | ICT & Cyber | Intelligence, Surveillance & Reconnaissance Test Equipment | Training & Education

# **Company Brief**

BCT Solutions (an Accenture subsidiary) is an award-winning professional services consultancy specializing in Cyber, Electronic Warfare, Technology and Intelligence.

Established by former servicemen and women, BCT is regarded advisor and partner to the Australian government for the provision of specialised project delivery, engineering, learning and development, and technical solutions. The team operates across Australia, with our HQ in Canberra and a presence in Queensland, New South Wales, Victoria and South Australia.

# Project delivery, engineering services, learning & development, and technical solutions



#### Learning & development

- Work Force Planning
- Work Force Modelling
- Organisational Change
   Management
- Performance Needs Analysis
- Training Implementation Plans
- Training Design and Delivery

#### **Engineering services**

- Systems Engineering
- Systems Integration Analysis
- FPS development
- CDDD development (OCD and CONOPS)
- Procurement and Acquisition Support (ITR/RFT/SOW development)
- Technical Analysis and Studies

#### **Technical solutions**

Service Information

Capability Requirement Analysis Business Unit Support

Program/Project Sponsor responsibilities
Program/Sub-Program Strategy Development
Program/Project Management via the Capability

Business Case / Technical Study Development

**Project delivery** 

Life Cvcle

- Cyber Workforce Planning
- Cyber Facilities Analysis
- Cyber Operations Support
- ICT capability road map development
- ICT network planning and analysis
- Operational Intelligence Capability
   analysis and development

# Availability

# Cablex



Autonomous Systems | Communications | Design | Engineering | Intelligence, Surveillance & Reconnaissance Manufacturing | Optical | Research & Development | Robotics | Space Capabilities | Test Equipment Through-Life Support | Vehicles & Accessories

# **Company Brief**

Cablex is an Australian owned company with local and global supply chains to support each customer's requirements.

Capabilities – Design assistance, prototyping, product qualification and validation; harness manufacturing and box builds (simple leads to complex avionics harnesses); build to print and build to specification; integration of wiring and harnesses into cabinets and enclosures; test, design and development; installation services; and through-life support, maintenance, repair/overhaul, spares and repairs.

Customer benefits – Experience integrating hardware solutions across multiple platforms/domains; specialist skills and professional knowledge to solve challenging issues; and small enough to be agile and flexible to deliver solutions without competing with defence primes.

# Solutions for Electrical Systems, Products, Manufacturing, Integration and Services



# Service Information

Cablex provides state of the art solutions for electrical systems, products, manufacturing, integration and services, for harsh environments. It supports some of the world's largest defence and aerospace companies as well as transportation, telecommunications and electronic.

Cablex is one of Australia's leading globally recognised manufacturers of build to print and build to specification of electromagnetic hardened and emission controlled wire harness, electrical enclosures, box builds and consoles for harsh electrical noise environments. Cablex specialises in C4ISR equipment integration across land, air, sea and transport platforms.

Cablex provides competitive solutions for complex systems where there is a high mix of products and low volumes.

# Availability

# Cobham Aviation Services Australia – Special Mission

Engineering | Humanitarian | Intelligence, Surveillance & Reconnaissance | Through-Life Support | Training & Education

# **Company Brief**

Cobham Aviation Services Australia – Special Mission combines state-of-the-art surveillance technology with aerial platforms to deliver customised airborne surveillance and search and rescue services.

Their end-to-end capabilities benefit government and military customers with responsive and cost-effective 'turn-key' solutions for optimal mission performance. With in-house engineering capability, crew training, mission system component workshops and logistics systems to support their fleet, Cobham is able to deliver customised special mission solutions.

### **Custom Electronic Design and Manufacturing**



# Service Information

Cobham delivers fixed wing airborne surveillance, search and rescue support to governments and militaries for national security, law enforcement, environmental protection and emergency response.

CABHEM

Providing operations for Australian Border Force, Cobham deploys highly-modified aircraft flying 3,000 missions each year. The aircraft are integrated with the latest surveillance and communication technology, including electro optic/infrared turrets, search radars, mission management systems, network real time data systems, secure communications and satellite video links.

Cobham utlises highly-modified Challenger jets to provide a turn-key search and rescue capability to the Australian Maritime Safety Authority (AMSA). The jets contain sophisticated, state-of-the-art technology integrated onto a civil search and rescue platform. This technology enables AMSA's Search and Rescue officers to be virtual crew members with eyes and ears at the scene as events unfold.

The modification, integration and through life support of these aircraft and systems is undertaken in house by Cobham in Australia using numerous local small businesses.

# Availability

# DefendTex



Artificial Intelligence | Autonomous Systems | Design | Electronic Warfare | Engineering Intelligence, Surveillance & Reconnaissance | Manufacturing | Research & Development | Robotics Space Capabilities | Weapons & Ammunition

# **Company Brief**

DefendTex is recognised as one of the most innovative defence technology companies in Australia focussed on delivering tactical level technology where there are capability deficiencies.

DefendTex state of the art facilities along with an extensive design and engineering team, produce world leading weapons technology.

DefendTex invest significantly in research and development and has an extensive product range incorporating Metal Storm products.

DefendTex's core capabilities are research and development, manufacturing, engineering, testing and evaluation and commercialisation.

### Research, Design, Development, Manufacturing & Commercialisation



# Service Information

DefendTex operates state-of-the-art system integration, prototyping and production facilities. These facilities include a dedicated firing range rated .50 cal Armour Piercing allowing for rapid testing and validation of designs. DefendTex has a fully equipped machine shop with CNC lathes, 3 and 5 axis mills, surface mount electronics assembly production line, chemistry laboratory, additive manufacturing laboratory and energetics material and propellant manufacturing and testing facility.

The DefendTex team is comprised of systems, mechanical, electrical, electronics, mechatronic, aerospace and embedded systems engineers. In addition, DefendTex have a bilateral research agreement with various research partners to collaborate on innovative research in defence technologies.

# Availability

# **Direct Edge Manufacturing**



Design | Engineering | Manufacturing

# **Company Brief**

Direct Edge Manufacturing provide an innovative one stop shop for all sheetmetal manufacturing and associated components. Through triple certified ISO systems and implementation of ISO 3834-2, Direct Edge Manufacturing have been able to focus on continuous improvement, WHandS risk, minimising environmental footprint and welder qualification and inspections to a variety of Australian and International standards.

Direct Edge Manufacturing has been able to maintain D.I.F.O.T and quality over the past 4 years into the global market. Modern technology and adaptable production capabilities allows us to add value and drive competitive advantage into any supply chain.

### Sheetmetal manufacturing & associated components



# Service Information

Direct Edge Manufacturing offer a range of services from design and drafting, prototype assembly, varied production quantities, CNC laser, CNC punch, CNC router, brake pressing, jobbing operations including but not limited to drill and tapping, bevelling, green trim removal, material de-burring, welding of mild steel, stainless steel, aluminium and associated materials, quality assurance testing, final assembly, electro-polishing, powder coating and wet painting.

Facilitation of ISO 3834-2 by an International Welding Specialist onsite offers a range of welder qualifications and inspections to a variety of Australian and International standards.

They utilise a fully integrated ERP system to control quality, workflow, product identification, delivery and resource allocation. They will work with customers to determine the most efficient process for submitting orders and other lines of communication.

# Availability

# **EDC Consultants**



Design | Engineering | Manufacturing

# **Company Brief**

EDC is at the forefront of engineering design-solutions for the structural-steelwork needs of the mining, defence, resources, industrial and commercial industries of Australia.

The incorporation of innovative software systems, combined with our highly-trained team of design specialists, has helped EDC completely reconstruct the natural order in which design, detailing and drafting processes occur.

EDC's value comes from our ability to provide our extensive experience during the initial design-phase of a project. Completely circumventing the commonly accepted (but out-dated) design sequence that would see you (the client), locked into an inefficient and timely design process.

### Engineering and Design (Civil & Structural)



# CONSULTANTS

# Service Information

EDC aims to actively collaborate with its clients, becoming an indispensible partner during the design stages of any given project. The incorporation of EDC's fully interactive 3D-models becomes an essential component during the construction phase of our client's projects.

By sub-contracting the structural-steel modelling requirements of a project to our highly trained specialists (which can create a connectionless FIM and add connections at a later date), your engineers will be able to better manage their project schedules more timely and efficiently; as they'll have a comprehensive and interactive FIM resource to refer to at all times.

# Availability

# Eggler Technology Training



Design | Engineering | Training & Education | Vehicles & Accessories

# **Company Brief**

Eggler Technology Training is a leading Australian professional development and training services company, specialising in capability design, systems engineering and military technology.

Eggler works in close partnership with governments and private sector companies to develop of essential knowledge and skills of professional staff working in capability development, acquisition and through-life support roles.

Training programs, short courses and diplomas are delivered worldwide and focus on developing practical skills needed in the workplace. Training programs can be individually tailored to meet an organisation's specific professional development requirement.

### **Training & Education**



# Service Information

Eggler's specialist capability definition documents, systems engineering and military technology professional development training programs are designed to develop essential knowledge and practical skills needed by capability developers, systems engineers, project managers and other technical staff working on high technology defence projects.

In recent years, Eggler Technology Training has exported a large number of professional development training programs to South-East Asia, the Middle-East, India, Europe and the USA.

Training programs are delivered in the following key areas: capability design and developing capability proposals; systems engineering and systems analysis; operational analysis and force design; military vehicle technology and mobility; weapons, firepower and survivability technology; tactical mobile communications technology; introduction to defence technology; human systems integration; reliability engineering and integrated logistic support.

# Availability

# Envirofluid



Engineering | Ship Building | Through-Life Support | Maintenance Repair Overhaul

### **Company Brief**

Envirofluid (NCAGE Z02N8) is an Australian owned company focused on providing maintenance chemistries to the Defence Industry, with exports to NATO countries globally and providing solutions to difficult maintenance problems, with positive environmental and WHS outcomes that align with global guidelines.

Envirofluid understand that many sustainment issues and system malfunctions are caused by problematic chemicals. This includes chemicals that erode surfaces, damage components, release harmful toxins, and result in expensive repairs and health concerns. Envirofluid instigates a holistic approach to chemical usage by eliminating or substituting problematic chemicals with specialised NSN codified chemistries designed protect the user and the environment.

### Maintenance, Repair, Overhaul Chemicals



# Service Information

Envirofluid helps companies preserve and care for their workforce through smart chemical applications that eliminate workplace and environmental risk. By conducting business in an environmentally responsible manner that helps protect personnel, the earth and its natural resources.

Envirofluid eliminates risk through high performance chemistries that streamline work-flow, increase efficiency and generate an outstanding ROI. The breakthrough system has been designed to provide advice, performance analysis, technical and implementation support for seamless product substitution and change-over.

# Availability

>12 months. Custom design and production. Designed and manufactured to order. All chemicals ex-stock.

# **Frontline Manufacturing**



Engineering | Manufacturing

# **Company Brief**

Frontline Manufacturing is a small business specialising in complete in house (5 – 5000kg) Steel component subassembly and assembly manufacturing specialising in high tensile.

Services offered are; Laser Cutting (Laser to 20mm plate), Plasma Cutting (High Def Cutting to 80mm) Brake Press Folding (Folding to 1000 Tonne), CNC Machining, SP Welding and Robotics as well as painting. All departments are driven by a very highly skilled and innovative team with a "quality first" culture for all manufacturing processes.

### Metal Structure Manufacturing including Armour Plate



# Service Information

Frontline has been historcially successful in supplying to Defence Primes largely because of a unique ability to offer a turnkey solution, combining the disciplines of CNC machining and fabrication in one facility for the highest quality result at the lowest cost. Frontline's processing equipment allows it to focus on the 'heavier' metal structures.

When combined with a deep welding skill base and commitment to quality, this allows us the manufacture of complex, highly critical structures. Frontline has developed a specialisation in fabricating Armour Plate, working closely with the Australia's excellent domestic Armour Plate Manufacturer, and tested by the DMTC.

Frontline has accreditation under ISO 3834, as well as ISO 9001.

# Availability

# Fugro Australia Marine



Intelligence, Surveillance & Reconnaissance | Through-Life Support | Safety of Navigation

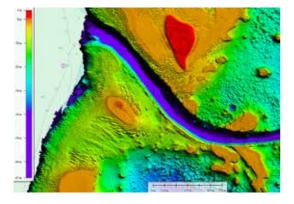
# **Company Brief**

Fugro are a leading geo-data specialist, collecting and analysing comprehensive information about the Earth and the structures built upon it. We provide the specialist people, equipment, expertise and technology to safely map marine and land environments.

Fugro also has a significant Research and Development capability within Australia to provide hydrographic survey solutions that enable efficient operations, improved data quality, and expedited product delivery for clients and end users.

Employing more than 400 staff in Australia, Fugro has a proven track record in delivery and support services to the Royal Australian Navy's hydrographic service since 1994.

### Fugro LADS (Laser Airborne Depth Sounder)



# Service Information

The Fugro LADS (Laser Airborne Depth Sounder) is a sophisticated Airborne LiDAR Bathymetry (ALB) system which accurately measures water depth and collects data over both marine and coastal zone environments and has a long history of use within the Royal Australian Navy.

First developed by the Defence Science and Technology Organisation (DSTO) in response to the need for safe and efficient data collection in the marine and near shore environments that could not be efficiently surveyed by conventional vessels, the system has evolved to remain the safest and most efficient method to collect data in the marine environment.

# Availability

# **Geospatial Intelligence**



Autonomous | Humanitarian | ICT & Cyber | Intelligence, Surveillance & Reconnaissance | Optical Research & Development | Space Capabilities | Through-life Support | Training & Education

# **Company Brief**

Geospatial Intelligence is an Australian owned, privately held company based in Canberra. The company has been successfully delivering high quality geospatial solutions to the public and private sectors, with an emphasis on Defence and security, since 2002.

### Comprehensive Geospatial and Imagery Analysis Training



Modules include:

- Remote sensing
- Imagery analysis
- Motion imagery
- Managing a geospatial capability
- Collection management
- Information management
- ISR concepts and management.

# Availability

>12 months. Custom design and production. Designed and manufactured to order.

# Service Information

Geospatial Intelligence offers comprehensive geospatial and imagery analysis training. Training in the use and analysis of imagery for IMINT (Imagery Intelligence) and GEOINT (Geospatial Intelligence) from satellite, fixed wing and rotary aircraft with electro optical (EO) including infrared and radar (Synthetic Aperture Radar) sensors.

Training consists of theoretical courses including lectures, case study analysis, and practical work.

Module-based training offers the client flexibility to 'mix and match' training modules to suit their requirements.

# **Griffin Marine Services**



Engineering | Manufacturing | Ship Building

### **Company Brief**

Griffin Marine Services provide efficient, competent and professional marine and industrial engineering services, delivering high quality and trustworthy service in the shortest time. Griffin Marine is a Defence recognised supplier and has DNV-GL ISO 9001 accreditation, and winner of the AIDN-NT 2019 Chief Minster's Award for Excellence in the Defence Industry.

#### Land and Sea, 24/7



# Service Information

Services that Griffin Marine provide include, but are not limited to, steel and aluminium fabrication, insulation, cladding, painting and carpentry. Griffin Marine works in docks all over Australia and can also work remotely on vessels in transit. Griffin Marine's welding services include stainless, copper nickel, aluminium, high tensile, DH36, DH55 to DNV GL and Lloyds class certification.

# Availability

# Hawker Pacific



Communications | Design | Engineering | Intelligence, Surveillance & Reconnaissance | Logistics | Manufacturing Through-Life Support | Training & Education

### **Company Brief**

Headquartered in Sydney, Australia, with over 20 locations globally, Hawker Pacific's depth of defence service experience, innovative and meticulous approach ensures acknowledgment as an industry leader in providing integrated aviation services to the ADF and exporting services to international defence allies.

The world-class team draws on over 40 years of experience to offer the complete range of professional defence and aviation services including avionics repair and overhaul, special mission aircraft modifications, components manufacturing, repair and overhaul and fleet services.

Hawker Pacific has a proven track record in delivering solutions within international regulatory and export accreditations.

Hawker Pacific also offer the following services: Avionics Repair and Overhaul, Component Services and Special Missions. Please see the company website for more details.

#### **Fleet Services**



### Service Information

Hawker Pacific's unique Hybrid Airworthiness® model allows aircraft to undergo airworthiness to both civil and military standards. Based on the best practice EASA145 airworthiness standard, performance-based contracting models are offered to deliver airline fleet management previously thought impossible using a traditional support framework.

Extensive in-house expertise allows for an individually tailored innovative turn-key aircraft fleet management solutions, with capabilities including Program management, Maintenance and configuration management, Design Engineering support, Logistics management and warehousing, Acquisition, leasing and disposal of asset, Civil-to-Military and Military-to-Civil role conversions and Technical skill and knowledge.

Hawker Pacific's depth of experience in aviation fleet management programs leads the industry and ensures the delivery of output based performance contracts that are inherently safe, efficient and cost effective anywhere within the Asia Pacific and Middle East regions.

# Availability

# Heatlie Barbecues



Design | Engineering | Field Equipment | Manufacturing | Research & Development | Through-Life Support

# **Company Brief**

Heatlie is an Australian owned company that specialises in the design, manufacture and sustainment of commercial catering equipment.

Heatlie has supplied Barbecues, Roasters, Bain-maries and Steamers to the Australian Defence Force. Heatlie has a strength in developing innovative products and solutions for Defence applications, as proven by being awarded both COTS and developmental tenders.

#### Heatlie Portable Stainless Steel Barbecue – HM1150D



### Service Information

The Heatlie HM1150D has a proven record for robust performance and reliability and some units have been in service in the ADF for over 30 years. The barbecue is manufactured with a 10mm thick plate and is constructed to withstand harsh conditions with maximum reliability.

The barbecues are able to be easily repaired and all parts are available as spares. In-house quality control sees that every product is tested and functional prior to leaving the factory, to ensure that every barbecue meets the high standard that we expect of our products.

# Availability

## Hofmann Engineering



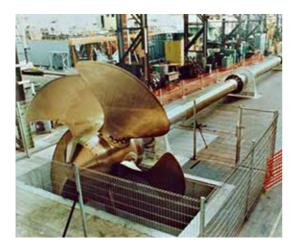
Design | Engineering | Manufacturing | Test Equipment | Through-Life Support

#### **Company Brief**

Hofmann Engineering is a globally recognised and proud Australian company with a long history of supplying goods and services to the Australian Defence Force. Their organisation has both a national and international footprint with established and well equipped facilities including design, high precision machine shops, fabrication, heat treatment and onsite service crews.

Hofmann Engineering delivers client driven solutions that meet international military standards, delivered through their highly experienced team of defence professionals.

#### Maintenance and Sustainment



#### Service Information

- Maritime Sustainment, Overhaul and Upgrade Propellers, Propulsion Shafts, Transmission Gears, Periscopes, Mast, Windlass, Capstan, Thrusters, Turret Gun Equipment, Valves, Insitu Machining, Gas Turbine Enclosures.
- Inspection Insitu Laser Alignment of Periscopes, Shafts, Transmissions.
- Maintenance and Servicing of Land Vehicles Steering Boxes, Aluminium Communication Racks, Product Support and Field Services.
- Aerospace Tooling and Components.

#### Availability

## Honeywell



Autonomous Systems | ICT & Cyber | Intelligence, Surveillance & Reconnaissance | Through-Life Support

#### **Company Brief**

Honeywell invents and manufactures technologies that address some of the world's most critical challenges around energy, safety, security, productivity and global urbanisation. Honeywell is uniquely positioned to blend physical products with software to support connected systems that improve homes, buildings, factories, utilities, and aircraft, and that enable a safer, more comfortable and more productive world. Their solutions enhance the quality of life of people around the globe and create new markets and even new industries. Honeywell also offer the Command and Control Suite, which gives you powerful oversight and control of your facility via a comprehensive layered interface.

As a Fortune 100 company with \$40.5B in sales in 2017, Honeywell has established a track record of strong financial performance over time.





#### Service Information

The EBI R500 delivers simple and scalable integration, using cloud technology and mobile apps to help make operations more efficient and your facilities more secure. The EBI platform helps organisations detect incidents faster, respond more quickly, and mitigate any impact more cost effectively.

Security improvements strengthen protection for people and assets.

Real-time facility data increases productivity, optimises efficiency and promotes the safety and security of your facility.

#### Availability

### InnovAero



Autonomous Systems | Design | Engineering | Intelligence, Surveillance & Reconnaissance | Optical Research & Development

#### **Company Brief**

Innovaero is a multi-disciplinary aeronautical product design and manufacturing organisation with particular specialisation in airbourne camera systems for both manned and unmanned platforms.

Over the past decade Innovaero has developed world-class camera systems for ultra-high resolution wide area image capture and data storage. The technologies applied by the company are absolutely world-class and stretch the bounds of what is considered possible in terms of acquisition coverage rates, accuracy and resolution.

Innovaero holds a broad portfolio of CASA approvals for design, manufacture and systems overhaul, ensuring that all product and system development activity is aligned to a certification outcome.

#### Airborne Systems Development & Manufacture



#### Service Information

Innovaero performs both complex product design and product certification which require distinctly different technical expertise.

Product Design requires a broad range of engineering disciplines encompassing mechanical, electrical, electronic, systems, optics, materials and manufacturing. However this technical expertise alone is not sufficient; the ability to design outstanding new product requires that rare and ephemeral creative element – a characteristic that makes Innovaero's design team stand out from the crowd.

Certification activities are intricately woven through the design process to assure compliance through analysis, systems testing, structural testing, environmental testing, flight testing and operational testing. All this is performed by the Innovaero team using a combination of internal resources supported by global partners.

Innovaero has an extremely broad range of manufacturing approvals covering pre-preg and filament wound composites, PCB assemblies, optics, control cables, vacuum-forming and metallic component manufacture.

Innovaero applies these capabilities to electro-optic systems development, replacement part manufacture and UAS programmes.

#### Availability

# Integrated Design & Engineering Solutions



Autonomous Systems | Design | Electronic Warfare | Intelligence, Surveillance & Reconnaissance | Manufacturing Research & Development | Test Equipment | Through-Life Support | Training & Education | Vehicles & Accessories

#### **Company Brief**

Integrated Design and Engineering Solutions (IDES) is a Melbourne based, wholly Australian owned, engineering product development and systems integration company.

Key Capabilities include, but not limited to: specialised vehicles; advanced design and high-end engineering; weapon systems; FP-ECM; and C4ISR & Land-EW Integration. Since 2009, IDES has delivered over 1600 bespoke Land System solutions.

Focused on the complete life-cycle, IDES provides capability definition and evaluation, concept generation, detailed design, prototype development, integration, manufacturing and through-life-support.

Their professional, multi-disciplinary staff specialise in outcome focused solutions – where on-time, deployable and supportable solutions save lives and provide unmatched capabilities.

#### Engineering Product Development and Systems Integration



#### Service Information

Key Activities include, but not limited to:

- Project Management and Systems Engineering
- 3D Laser Scanning and Reverse Engineering.
- Detailed Design (CAD, Ergonomics, etc.) and Engineering Analysis (CAE / FEA).
- Prototyping, Testing (Virtual & Physical Firing) and Evaluation.
- Complete Technical, Operator & ILS Documentation.
- Operator & Maintainer Training.

IDES designed, delivered, commissioned, and is providing in-service support of Mobile Proof Gun Mounts (MPGM) used by the Australian Defence Force (ADF).

The MPGM provides a high speed road mobile capability for the proof-firing and testing of the Royal Australian Navy's (RAN) 5"/54 munitions.

The MPGM system includes:

- Integration of Naval 5" (127mm) 54 calibre Gun (supplied as GFE).
- High-strength mobility platform.
- Weather proof and powered round lifting system.
- High recoil capable ground engagement system.
- Compliance with road transport regulations.

This product can be customised to suit a variety of munition proofing gun requirements.

#### Availability

## IntelliDesign



Design | Engineering | Manufacturing

#### **Company Brief**

IntelliDesign is an Australian electronic design and manufacturing company that develops and manufactures high quality, robust, electronic devices for mission-critical applications across a variety of markets, including Defence.

IntelliDesign has a highly skilled team of engineers, designers and production technicians, and a well-equipped production area that includes Automatic Optical Inspection, X-ray analysis and Flying Probe Testing.

Global clients include Boeing Defence, Cook Medical, GE Mining, Northrop Grumman, Rio Tinto and Siemens Rail.

#### **Custom Electronic Design and Manufacturing**



#### Service Information

IntelliDesign provides a "one-stop" service, with design and manufacturing undertaken in a modern, purposebuilt 1500 sq metre facility in Brisbane. IntelliDesign has a highly skilled team of designers (including electronics and firmware engineers and industrial designers) and production technicians (including SMT assembly line operators, IPC inspectors, and test technicians) and a well-equipped production area that includes two Automatic Printed Circuit Assembly (PCA) lines with Automatic Optical Inspection (AOI), X-ray analysis and Flying Probe Testing.

IntelliDesign is certified to ISO9001:2015 and has

a unique enterprise resource planning software system that provides full component traceability and versioncontrolled, on-screen assembly and test instructions, allowing a well-managed paperless production area.

Recent Defence projects include a (1) Secure Communications System (SCS200) for Northrop Grumman and (2) Power Supply Module (PSM) for Boeing Defence Australia, part of LAND 2072.

#### Availability





ICT & Cyber | Training & Education

#### **Company Brief**

lonize has well-developed capability and capacity to provide a range of security services. The security team has provided Governance, Risk Compliance (GRC), security testing and incident response services for a variety of federal government, commercial and academic organisations.

The depth of experience and capability is evidenced by the extensive involvement of staff with organisations developing security standards, such as Standards Australia and OWASP. Ionize is also an ASD endorsed IRAP training organisation and member company of the Council of Registered Ethical Security Testers (CREST) with CREST certified testers.

#### **Cyber Security Services**



#### Service Information

lonize is a cyber security consultancy comprising a team of highly skilled and experienced professionals who deliver quality services across a range of security disciplines, including:

- Security Governance, Risk and Compliance
- Security Architecture, Design, Implementation and Management
- Security Testing, Vulnerability Management and Attack
   Simulations
- Security Operations, Incident Management and Forensics
- Security Research and Analysis
- Software Assurance
- Security Awareness and Education.

lonize also supports a range of technical security services with a range of vendor products, including:

- Implementation and support of ASD Top 4 security controls:
  - Application and Device Control
  - Operating System and Third Party Software Patch Management
  - Review and Rationalisation of Privileged System Accounts.
- Automated Security Code Analysis (HP Fortify and IBM AppScan Source) and Vulnerability Scanning solutions including Nessus and Nexpose
- Security Incident and Event Management (SIEM) solutions including Splunk, Elastic Stack, HP ArcSight and McAfee ESM.

#### Availability

< 3 months. Custom design and production.

## Logistic Solutions Australasia



Autonomous Systems | Design | Engineering | ICT & Cyber | Manufacturing | Engineering | Logistics Through-Life Support | Training & Education

#### **Company Brief**

Logistic Solutions Australasia (LSA) is a Professional Service Provider (PSP) and Consultancy company that has been providing innovative, practical and professional support services to clients in the Defence, Defence Industry and Commercial sectors since 1998.

LSA is located in Melbourne and Canberra and specialises in integrated logistic support (ILS), systems engineering (SE) and project management (PM) services for land materiel covering the complete life cycle from conception through to disposal.

LSA prides itself on providing pragmatic, timely and comprehensive advice based on an intimate understanding of the Australian Defence environment.

#### Support Services



#### Service Information

LSA works with clients to apply the latest tools, processes and procedures in support of projects involving:

- Project management,
- Systems engineering,
- Integrated logistic support,
- Technical documentation production, and
- Training design and development.

LSA does this to support the introduction into service and through life management of capital equipment; whilst building knowledge and capacity in the client organisation.

Highly experienced practitioners are also able to provide maintenance and repair support services for complex equipment and systems in the maritime, air, and joint domains. As the majority of staff have a military background, LSA is able to assist clients in understanding and producing the documentation required for all phases of the capability life cycle, including the complete suite of technical documentation.

#### Availability

< 3 months.

# Matrix Composites & Engineering



Design | Engineering | Research & Development | Test Equipment | Through-Life Support

#### **Company Brief**

Matrix produces engineered products, functional additives and advanced materials for a variety of defence industry applications. Using proprietary polymer composite and chemical technologies, Matrix develops and manufactures a range of high performing solutions to lighten the load, maintain capability and assure delivery in complex and harsh environments.

Matrix is a trusted Australian partner for practical material science applications where performance, reliability and safety are paramount. Matrix also offer the Syntactic Buoyancy product, used to provide long term stability in deep water environments. Please refer to the company website for further details.

#### Large Scale Hyperbaric Testing



#### Service Information

Matrix operate the largest hyperbaric testing facility in the Southern Hemisphere. Instrumented and temperature controlled, the facility specialises in longterm material and equipment testing in a simulated deep-water environment. Of their seven chambers, their largest has internal dimensions of Ø1.6 × 7.2 m and can be pressurised to 53 MPa. Test durations of two weeks are not uncommon and can – in theory – be extended indefinitely.

Matrix also offer a full integration service and can assist with experimental design, handling fixtures, in-chamber instrumentation and analysis of test results. The vessels and preparation area operate in the shadow of a 40-tonne capacity crane, with their technicians ready to help load and unload your equipment.

Operating within their ISO 9001 system, all instruments regularly calibrated. Matrix works closely with local certification authorities (such as Bureau Veritas) to ensure that test results are beyond reproach.

#### Availability

## Medical Rescue



Medical

#### **Company Brief**

Medical Rescue provide turnkey aeromedical evacuation services worldwide using fixed and rotary wing aircraft to support military exercises or deployments. Medical Rescue can develop, implement and coordinate forward, tactical, or strategic AME requirements. The company provides emergency medical care to thousands of patients every year and are one of Australia's busiest pre-hospital medical services.

Services include:

- Remote medical resources
- Rescue helicopter
- Air ambulance.

Medical Rescue can embed with pre-existing health support or operate as a stand alone resource.

#### Support Services



#### Service Information

Medical Rescue can supply forward, tactical or strategic AME capability worldwide. We can provide turnkey rotary or fixed wing aeromedical evacuation resources or we can supply the medical crew and equipment to work on existing aircraft.

Medical Rescue's fixed wing air ambulance is one of the busiest international aeromedical retrieval services in Australia.

Based in South East Queensland with full ICU capability, it is crewed by emergency doctors and flight nurses and supported by a dedicated 24/7 operations team that manages:

- International airports
- Forward base of operations
- Fuel agencies
- Customs and Border Protection
- Immigration and emergency visas
- Ground ambulance services
- Foreign and receiving hospitals.

#### Availability

## Med Rescue Training



Training & Education | Medical

#### **Company Brief**

Med Rescue Training (MRT), is a privately held, Australian-owned company. MRT develops and delivers specialist driver training courses for the Australian Defence Force, emergency services and private sectors.

MRT provides personalised education via nationally accredited training as a Registered Training Organisation and non-accredited, bespoke training. Programs can be developed to meet an organisations' requirements including stand-alone training and assessing, train the trainer courses or implementation of a training model.

MRT's expertise and resources facilitate tailored delivery of driver training for Defence programs. Resource digitalisation, e-learning platforms and readily deployable teams mean MRT can deliver training domestically and internationally.

#### Specialist Driver Training | Aeromedical Evacuation Services



#### Service Information

MRT provides intensive training programs to achieve timely and cost-effective solutions for clients.

Training programs include: light/medium/heavy vehicles; military vehicles (weaponised and non-weaponised); 4-wheel drive operations and recovery; snowfield, ice, sand, beach and water safe driving behaviours; tactical and defensive driving; and light and heavy machinery.

MRT's delivery of training and short courses are aimed at practical, workplace skills development. Programs are delivered by a team of highly experienced, certified trainers drawn from Defence, Police and Emergency services backgrounds.

Further capabilities include: training analysis, design, development and delivery; practical assessments and mentorship; development of leading-edge digital resources; integration via e-learning platforms; and technical documentation production.

MRT's approach is guided by best practice and is certified to ISO9001:2015 standards.

Recent Defence projects include, the Introduction to Service and defensive driver courses to ADF Land 121 and G-Wagon training for Australian emergency services.

#### Availability

# MEMKO Aviation Aerospace & Defence



Autonomous Systems | Design | Engineering | ICT & Cyber | Manufacturing | Engineering | Research & Development Test Equipment | Through-Life Support | Training & Education

#### **Company Brief**

MEMKO specialises in Aviation, Aerospace and Defence with comprehensive design engineering and technical services focused on continued airworthiness support of fixed and rotary wing aircraft. Additionally, as part of Fleet Technical Management (FTM) services, MEMKO offers industry leading engineering systems as turnkey SaaS solutions.

MEMKO is a CASA Part 21 Approved Design Organisation with an accredited AS9100 Rev D and ISO 9001:2008 Quality Management System.

#### Military Airworthiness Regulatory Compliance and Training



#### Service Information

MEMKO offers engineering support services for Military Aviation Airworthiness Regulations. Recently the Australian Defence Force has adopted the framework of the European Military Airworthiness Requirements which has been harmonised with the European Civil Aviation requirements.

As a current holder of a civil Part 21 airworthiness authority and with a participation in the industry implementation of the new Australian Defence Aviation Safety Regulations, MEMKO is well placed to provide support services to Military Aviation in initial design, acquisition, production, sustainability and asset management.

MEMKO service is based on the key attributes of competency, agility and flexibility and embraces functional expertise in Engineering, Regulatory Compliance, Quality and Training. MEMKO also offers short courses and certified trainers to provide continuing education of Defence technical and management staff. The training courses cover material taking into account the increasing need for skills in regulatory compliance, design, manufacturing and sustaining of aircraft.

#### Availability

## Moog Australia



Autonomous Systems | Design | Engineering | Manufacturing | Research & Development | Space Capabilities Test Equipment | Through-Life Support | Vehicles & Accessories | Weapons & Ammunition

#### **Company Brief**

Moog Australia established in 1979, is a wholly owned subsidiary of Moog Inc. a leading global supplier, delivering motion control and electronic solutions to the military. As a Defence Recognised Supplier since 2003, Moog Australia has been actively supporting the efforts of Australian and New Zealand's operational and training forces.

Moog provides mission critical systems and components across land, air and sea platforms including the F/A-18 Hornet and Super Hornet, Black Hawk, AP-3C Orion, ASLAV, M113AS4, M1A1, LHD, AWD, Collins Class Submarine and future platforms including the F-35 Lighting II Joint Strike Fighter and the Boxer CRV.



#### Remote Weapon and Gun Turret Motion Solutions

#### Service Information

Moog Australia currently provides full component and system level repair to the Australian Army's M113AS4 and ASLAV fleets, and it can provide full life cycle design, build, assembly and test solutions for remote weapon and gun turret motion controls for Australia and the Asia-Pacific nations for Land, Air and Sea platforms. Moog Australia can provide manned and unmanned turret solutions to vehicles and ships from concept level to after-market support.

Moog Australia can draw on its global supply chain and other Moog Inc. entities to deliver solutions that are cost effective, local and free of US and European export regulations, making a solution that can be supported both in Australia and throughout the Asia-Pacific region.

Moog Australia continues to grow its local capabilities with Engineers, Technicians and Operational Support personnel to deliver customised solutions, research and development to Primes and end-users working in Australia and around the Asia-Pacific region.

#### Availability

## Nexus Training Solutions



Training & Education

#### **Company Brief**

Nexus Training Solutions (NTS) are an Australian, veteran owned company that provides training and learning management solutions to military, government and corporate clients around the globe. They work closely with clients to create unique training outcomes based around experience and understanding of operational and learning requirements.

The NTS team is made up of former defence, emergency service and medical sector personnel whose mission is to revolutionise the way in which organisations approach training and advisory services, and to train future generations to be better than the one that came before.

#### Training Creation, Integration & Support



#### Service Information

NTS works closely with clients, partners and industry primes to create training solutions ranging from small-team equipment and tactics integration through to large scale, enduring, learning and development programs which include the creation, administration and delivery of multiple training courses using a range of delivery methods.

All NTS training events are tailored to the needs of the customer and created using our ISO 9001:2015 Quality Management accredited ADDDE process:

- Analyse identify needs, requirements, gaps and shortfalls. Determine learning objectives
- Design create the training event to meet the objectives
- Develop create training aids to support the needs of the learner utilising a range of methods including theory, practical, simulation and augmented reality
- Deliver face-to-face, online and blended delivery options are available
- Evaluate ensure that training objectives have been met and that content is consistently refreshed to remain relevant.

#### Availability

## Norship



Design | Engineering | Logistics | Manufacturing | Research & Development | Ship Building | Test Equipment Through-Life Support | Marine, Engineering, Manufacturing, National & International ISS

#### **Company Brief**

Norship delivers services across three categories; Marine, Engineering & Manufacturing.

Norship Marine offers the full spectrum of Shipyard and 'Through Life Asset Management Services'. From concept, design, prototype, construction, and maintenance support through to docking, emergent repairs, complete refits, and disposals.

Norship Manufacturing is a successful advanced manufacturing, reconditioning and service centre. The Manufacturing portfolio includes overhauling and rebuilding engines, drivelines and propulsion systems, CNC precision machining (inc. Bespoke, Obsolesce & Prototyping), dynamic balancing and Dyno meter tuning services.

Norship Engineering specialises in design, certification, 3D CAD/CAM, drafting and survey / inspection services.

#### Marine



#### Service Information

Norship operates a certified naval shipyard providing sustainment services to the Navy and other branches of the Defence Force. With a focus on refit, maintenance and defect rectification, Norship delivers innovative maintenance solutions to the Armidale Class Patrol boats, Border Force, the Pacific Island Nations Patrol Boat Fleet and Cape Class Patrol Boats.

Norship has positioned itself as a Tier 2, A-grade contractor in support of Prime Contractors for Defence which offers Contractors the opportunity to engage an experienced, reliable team for the full suite of Defence ship sustainment and maintenance services.

Norship is DEF(AUST) 5000 and has an above benchmark CASG KDS (defence) rating. Lloyds certified to; ISO 9001:2015 Quality management; ISO 14001:2015 Environmental Management; AS/NZS 4801:2001 Occupational Health and Safety; and systems are compliant with ISO 55000 (Asset Management); ISO31000 (Risk Management).Norship has an above benchmark CASG KDS (Defence) and (Def Aust 5000) rating.

Capability Statement available, please see the company website for details.

#### Availability

## NT Port and Marine



Fuel Services | Logistics

#### **Company Brief**

NT Port and Marine is a marine services company based in the Northern Territory, Australia. Located at South Barlow Point, 63 nautical miles north of Darwin, Port Melville offers a premier facility.

Port Melville is a deep water, multi-user facility supporting naval forces, the oil and gas and general marine transport industries. Port Melville offers a 30 million litre capacity marine bunkering facility supported by a 220m floating wharf with 14 metres alongside water depth plus all required supporting equipment, services and personnel.

#### Fuel Supply



#### Service Information

Port Melville operates tank farm which is able to bunker vessels up to 50,000 DWT direct from a 220 metre floating wharf via pipe. A comprehensive selection of bunkering hoses and couplings is available able to support virtually any military or commercial vessel. The tank farm is able to offload fuel at a rate of 13,000 litres/minute and bunker at a rate of 3000 litres/minute.

The tank farm is fully supported by an integrated control room, variable speed dispensing pumps, metering, fire protection and oily water reclamation system. Port Melville operations are overseen by a qualified team of personnel with dedicated pilotage and Harbour Master. The Port Melville fuel facility is fully bonded/Australian Taxation Office compliant and is able to offer fuel both excise and GST exempt.

#### Availability

< 3 months.

### **Omni Executive**



Communications | Design | Engineering | Electronic Warfare | ICT & Cyber Intelligence, Surveillance & Reconnaissance | Logistics | Manufacturing | Research & Development Through-Life Support | Training & Education

#### **Company Brief**

Omni Executive is a veteran owned and led consultancy that was established in 2012, and provides a range of customised and cost-effective integration services and solutions that support unique and diverse operational environments. Solutions are delivered nationally and globally, to government and private sector clients through a focused program and project management approach that complements client requirements and operational outcomes.

Omni Executive offers a highly-skilled team of more than 100 professionals with in-depth experience, engineering and technical experience. Omni continues to work on both Commercial and Government related projects, operating within ISO-accredited quality, environmental and safety management standards.

#### Integrated C4ISREW Mission Solution



#### Service Information

Omni Executive has worked closely with clients and industry partners to deliver Integrated C4ISREW Mission Solutions. These demand complex design, development, integration, test and evaluation, verification and validation, and certification processes. They have worked collaboratively with these clients and partners on the successful delivery of a range of new or enhanced capabilities, now in service across many organisations.

They offer a depth of experience and capacity through their engineering support and systems integration services to meet the needs of Integrated C4ISREW Mission Solutions. These demands have been met by a team of highly experienced electrical, mechanical and systems engineers, drawn from a wide range of military and commercial backgrounds.

The Omni Executive team approaches tasks through structured methodologies that use both established and innovative tools. Omni Executive's approach is guided by industry best practice that drive a focused and cost-effective service toward high quality solutions and client outcomes.

#### Availability

## **OPEC** Systems



Engineering | PFAS Treatment and Remediation

#### **Company Brief**

OPEC Systems is a privately-owned Australian environmental engineering company established in 1992. With strong values and focus on best business principles OPEC has forged a reputation for honesty, flexibility, ingenuity and teamwork. Consistently operating the most hazardous environments, OPEC has an unwavering commitment to safety and professionalism in specialist industry sectors of Defence, Energy, Marine, Subsea, Environment and Health.

#### PFAS Commercial Scale Foam Fractionation Site Treatment and Remediation



Other services also include:

- Defence Fuel Infrastructure Solutions
- UNEXPLODED ORDNANCE (UXO)
- Haven Remploy Lightweight Protective Ensemble.

Please refer to the company website for details.

#### Availability

< 3 months. Custom design and production. Designed and manufactured to order.

#### Service Information

OPEC Systems is on the Defence Environment and Heritage Panel (DEHP), and the product and service delivery includes OPEC's PFAS treatment. The patented foam fractionation technology relies on the natural physio-chemistry of target PFAS compounds to collect on the bubble interface and concentrate on the surface as a harvestable foam. OPEC has developed a number of unique applications for the foam fractionation technology to allow it to be utilised to remove PFAS compounds from soil and water in both in-situ and ex-situ applications.

## Orbital UAV



Autonomous Systems | Design | Engineering | Manufacturing | Research & Development | UAV Vehicles & Accessories

#### **Company Brief**

Orbital UAV is a world leader in the design, development and manufacture of propulsion systems and flight critical components for unmanned aerial vehicles (UAVs).

From operations in Perth, Western Australia and Oregon, USA Orbital UAV delivers integrated propulsion systems and associated technologies into the world's largest suppliers of tactical UAVs.

The patented fuel injection system enables advanced spark ignition using heavy fuel – a requirement for military applications.

Such revolutionary technologies, combined with proven operational experience mean Orbital UAV is uniquely placed to meet the long endurance and high reliability requirements of the rapidly evolving UAV market.

#### Spark ignited, heavy fuel propulsion systems for tactical UAVs



#### Service Information

With four decades of technical know-how and operational experience, Orbital UAV is the world leader in spark ignited, heavy fuel propulsion systems for tactical UAVs.

From world-class facilities in Australia and the USA, they offer concept and detailed designs, prototyping and sourcing, manufacturing, and testing and validation.

Our capabilities include:

Design & Development

- Concept definition through to production;
- State-of-the-art analysis tools; and
- Design iteration through prototyping and detailed test procedures, measurement and analysis.

Machining & Prototyping

- Rapid in-house manufacture for prototyping and production; and
- Metrology labs.

Testing & Validation

- Aero-Engine propeller test stands (including durability cycles such as FAR33);
- Environmental dynamometers for cold start down to -35°C and hot operation up to 60°C; and
- Altitude simulation up to 20,000ft.

Orbital UAV's world leading propulsion solutions exceed the competition benchmark for reliability, power and system durability.

#### Availability

## **Pacific Aerospace Consulting**



Autonomous Systems | Communications | Electronic Warfare | Engineering | Field Equipment | ICT & Cyber Intelligence, Surveillance & Reconnaissance | Test Equipment | Through-Life Support | Training & Education Mission Systems | Training Systems, Simulation & LVC

#### **Company Brief**

Pacific Aerospace Consulting (PAC) is an Australian owned, independent services company constituted to provide worldwide support capabilities for our Australian and International clients.

PAC's core capabilities span across Mission Systems, Tactical Information Exchange, Simulation, Aviation Software Engineering and Certification, Air/Land Integration, Electronic Warfare Systems, and operationally focused information assurance and accreditation.

Established in 2004, PAC's team are committed to providing exceptionally qualified individuals ready to go above and beyond the routine to assure operational effectiveness. PAC is ISO 9001:2015 certified and a Defence Recognised Supplier. PAC also has extensive expertise with export/import security regulations in the US and International markets.

#### **Innovative Independent Professional Solutions**



#### Service Information

PAC's capabilities and niche expertise includes:

- Aviation Mission Planning Systems Systems engineering, technical and operational certification and accreditation, and expert consultation in support of the acquisition, sustainment and operation of complex military aviation and weaponeering planning products. Military mission planning and Electronic Flight Bag (EFB) System expertise.
- Tactical Information Exchange Network design, system integration, accreditation/information assurance and product documentation for high-end, secure data communication systems.
- Certification, Airworthiness and Integration Software engineering in support of on-board aircraft flight systems. Systems engineering from requirements definition through functional and performance specification, design acceptance, and verification by test and evaluation.
- Flight Simulation Introductory and advanced training in FSTD Qualification Courses. Development Test and Evaluation support. Qualification Test Guide Development and device Qualification activities.
- Electronic Warfare Systems Mission Systems and the associated accreditation and Information security requirements. Mission data management, during and post mission.

#### Availability

< 3 months.

## QinetiQ

## QINETIQ

Autonomous Systems | Communications | Design | Engineering | Manufacturing | Research & Development Test Equipment | Through-Life Support | Training & Education

#### **Company Brief**

QinetiQ Australia provides unique solutions that combines depth of knowledge and experience with a collaborative and enterprising approach. QinetiQ works across every aspect of the life cycle of critical equipment and infrastructure, providing services and products that address customers' most pressing challenges.

QinetiQ's breadth and depth of experience spans many markets and industries, and includes Defence's Air, Land and Maritime domains, as well as providing specialist Advisory Services.

#### Aircraft Structural Integrity



#### Service Information

QinetiQ Australia is the Australian Defence Force's industry partner for aircraft structural integrity engineering services. Working under a long-term contract with Defence, QinetiQ delivers engineering solutions which assure airworthiness while enabling capability and minimising cost of ownership to the Defence Aviation Safety Authority, Defence Science and Technology, acquisition project offices and sustainment program offices.

QinetiQ holds a unique status as the only Defence Industry Part 21J Design Organisation that is approved to develop design changes and repairs for metallic and composite structures on all ADF registered aircraft.

#### Availability

## QPE Advanced Machining & VPG



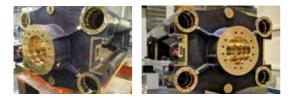
Engineering | Manufacturing | Space Capabilities | Through-Life Support | Weapons & Ammunition Machining and Fabrication

#### **Company Brief**

QPE specialises in precision machined components, fabricated assemblies, manufacturing, service and repair for Defence, Mining, Medical, Electronics, Aerospace and Renewable Energy verticals.

VPG is part of the Precise Advanced Manufacturing Group (PAMG) which uses QPE for manufacture.

#### Machining and Fabrication for Defence Maritime



#### Service Information

QPE's Core Competencies include CNC Mill Turn Lathes, CNC Boring, CNC Milling, CMM, EDM, Wire Cut, Wire EDM, Precision Grinding, assembly services, project management, installation, through-life support, service and repair.

QPE employs Faro Laser tracking for real time CMM during large component machining.

VPG manufacture Rapid Response Clamps used for Damage Control / Combat Survivability. Clamp customers include US and Canadian Navies. Clamps are designed for a single operator and are 6 times faster than Jubilee or Banding type patches with less leakage. The Rivet Hole Alignment Tool is another product of VPG. Please visit the website for further details.

#### Availability

## Risk Management Technologies



#### **Company Brief**

Risk Management Technologies (RMT) is a world leader in technology providing expertise in Enterprise Risk Management through software solutions such as ChemAlert, a revolutionary Chemical Management Software and FirstPriority, a Predictive Enterprise Risk Management Solution.

Chem

Committed to workplace safety for over 30 years, RMT is on a mission for excellence, relentless innovation and scientific analysis. Working on integrating deep learning and Artificial Intelligence, RMT is now integrating powerful algorithm tool-sets to deliver highly predictive insights to our clients.

#### ChemAlert



#### Service Information

ChemAlert is a revolutionary integrated Chemical Footprint Management System including:

DISK MANAGEMENT TECHNOLOGIES

- Comprehensive Inventory Management Toolsets
- Emerging Toxicity and Regulatory Data
- Chemical Footprint Action Boards
- Chemical Request Workflow
- Risk Assessment Workflow
- Analytics Action Boards
- Integrated Mobile Application with Barcode and RFID Toolsets.

RMT have also developed FirstPriority, one of the world 's most advanced Risk Management Enterprise systems. FirstPriority was created as a risk management software solution for enterprises to ensure that risks, failures, injuries or disease are not the first warning when things go wrong.

This custom-built framework is a whole of organisation risk management system ensuring that employees to the Board have the tools needed to predict, mitigate and respond to the infinite risks to an organisation. Now integrating machine learning and Artificial Intelligence, RMT is shaping the future with powerful algorithm toolsets to deliver highly predictive insights to our clients.

#### Availability

< 3–12 months.

## Rojone



Autonomous Systems | Communications | ICT & Cyber | Intelligence, Surveillance & Reconnaissance | Manufacturing Vehicles & Accessories

#### **Company Brief**

Rojone is an Australian company with nearly 40 years of experience in the communication industry, manufacturing and exporting a range of quality interconnect components globally. The company is a leader in RF cabling, specialising in phased match, semi-rigid and coaxial cable assemblies.

Rojone has developed a range of products highly suitable for the military markets and is a supplier to all departments of Defence and all Australian defence primes. The company is renowned as a solutions provider working closely with customers to deliver bespoke products to meet each customer's unique specifications.

## Interconnect Solutions – Antennas, Cable Assemblies, Headsets, USB Chargers, Build to Print



#### Service Information

The company has a wide range of products across the DC to light spectrums these include:

- Antennas UHF | VHF | GPS
- Build to Print Military Standards
- DC power adapters ruggedised USB charger
- GPS Repeaters Fixed and Mobile
- High Noise Headsets Certified to Australian Standards and highly customisable
- Semi-Rigid Cable Assemblies
- Phase matched Cable Assemblies.

Availability < 3 months.

## Scientific Management Associates



Through-Life Support | Training & Education | Integrated Logistic Support Services

#### **Company Brief**

Scientific Management Associates (SMA), is one of Australia's largest and most experienced independent Integrated Logistics Support (ILS) service providers, delivering the full range of ILS services since 1981.

SMA has the skills and resources required to deliver tailored fit for purpose ILS support across any defence or commercial program, including provision of nationally accredited training as a Registered Training Organisation, and the use of leading developmental capabilities to deliver innovative defence training and support solutions.

SMA prides itself in providing world-class ILS services, delivered by skilled professionals, in accordance with key performance standards underpinned by strong client relationships.

#### Integrated Logistics Support Services and Training Provider



#### Service Information

The range of services provided by SMA includes:

- Acquisition and sustainment project ILS services for complex military and civil programs.
- Logistics Support Analysis to define, aid and enhance supportability.
- Reliability, Availability and Maintainability analysis and modelling to ensure end-capabilities meet operational and sustainment requirements.
- Operation and Maintenance Task Analysis and development, based on detailed modelling, informing training and support development programs.
- Supply support and provisioning analysis, including spares modelling and recommendations for programs, to ensure through life supportability while lowering support costs.
- Training analysis, design, development and delivery, to prepare end users to make the most effective use of developed capabilities.
- Development of leading-edge virtual reality, mixed reality, and augmented reality simulation, emulation and part-tasktrainer products to support operator and maintainer training, particularly in the military training environment.
- Technical manual development including interactive documentation compliant with ASD S1000 requirements.

#### Availability

### Sea to Summit



Design | Field Equipment | Bespoke Development

#### **Company Brief**

Sea to Summit is Australia's leading supplier of speciality field equipment; designing, developing and delivering a range of product solutions for Government, Military and Industrial use. Since 1983, Sea to Summit have been a trusted industry partner and subject matter expert when it comes to finding practical and lightweight gear solutions for operational use.

Sea to Summit exports their award-winning range of products to 74 countries and are the exclusive domestic distributor for 25 international brands, maintaining a diverse global supplier base across military, industrial and recreational channels.



#### Integrated Sleep Systems

#### Service Information

Sea to Summit fulfil the specialised (often bespoke) gear and equipment requirements of the Defence, Police and Emergency Services markets, with an aim to create lightweight, scalable, inter-operable and durable systems that meet the needs of these unique end users.

One example of this is the Integrated Sleep Systems, which combines heritage proprietary technologies like ULTRA-DRY Down<sup>™</sup>, Air Sprung Cells<sup>™</sup> and Delta Cores<sup>™</sup>, with a new range of innovative integration solutions.

Each item in the Integrated Sleep System is designed to work by itself as a single lightweight piece of specialised gear that is also able to integrate with other items in the range providing greater versatility. Broken into two distinct but inter-operable lines, the Solace (Down Bag Sleep System Range) and the Lone Pine (Synthetic Bag Sleep System Range) are scalable and fully compatible with the Sea to Summit GMI range of mats, liners and sleeping accessories.

#### Availability

## Serco Australia Pty Ltd



Through-Life Support

#### **Company Brief**

Serco provides critical support services to Defence organisations, operating in-country and embedded within deployed forces around the world. Serco has deep expertise operating across all military settings including marine, land and air, and maximises Defence resources by delivering lower-cost, higher-quality support services and dependable on-time delivery to military command and personnel around the globe. Highly qualified, specialist teams, recruited from military backgrounds, understand the unique demands of Defence, so they are able to work hand-in-hand with service personnel wherever they are needed.

#### Fleet Marine Services



#### Service Information

Serco is a recognised market leader in providing commercial crews to operate Navy support vessels and meet the needs of the Australian Navy and are at the forefront of delivering exemplary asset management, asset acquisition and operational support services to the RAN and the wider ADF.

Serco manages support ships for the RAN and operate over 800 maritime support craft which ranges in size from Regulated Australian Vessels (DCVs) to Rigid Hull Inflatable Boats (RHIBs) and naval moorings. Serco supports the Australian government with national, and when required, international coverage from the six major RAN establishments. From these locations, over 150 dedicated mariners, technical and management staff deliver the Fleet Marine Services providing a consistently high standard of customer interaction, service and satisfaction.

#### Availability

> 12 months.

## Stahl Metall



Autonomous Systems | Communications | Design | Electronic Warfare | Engineering | Field Equipment Intelligence, Surveillance & Reconnaissance | Manufacturing | Research & Development | Robotics | Space Capabilities Through-Life Support | Vehicles & Accessories

#### **Company Brief**

Stahl Metall Engineering specialises in Design, Manufacture Custom Cable Assemblies and Harness, Communication and Electrical Enclosures/Box Assemblies, and Custom Metalwork. Full 'plug and play' systems.

#### Design and Manufacture Cable / Harness and Box Assemblies



#### Service Information

Precision Contract Manufacturing, Stahl Metall Engineering is specialised in Design and Manufacture Custom Wire and Cable Harness Assemblies and Interconnect solutions.

Stahl Metall has set itself apart by delivering quality wire and cable assemblies, that meet or exceed our customers stringent standards of performance.

All cable assemblies are manufactured to IPC/WHMA-A-620A.

#### Availability

## **TAE** Aerospace



Design | Engineering | Logistics | Manufacturing | Test Equipment | Through-Life Support

#### **Company Brief**

TAE Aerospace is the largest 100% Australian-owned aerospace company providing a broad range of Defence and commercial products and services. As a leading provider of turn-key Maintenance, Repair, Overhaul and Update (MRO&U) services for turbine engines in Australasia. TAE Aerospace's extensive experience in turbine engine MRO&U, engine test cell design and upgrade, health and usage monitoring systems, advanced aerospace manufacturing (including aluminium vacuum brazing), platform total logistic support and other quality products and services are available to military, commercial and industrial sectors globally. From fast jets and regional transports to Army tanks, TAE Aerospace is Australia's aerospace company.

TAE Aerospace also offer aerospace engineering, manufacturing, repairs and maintenance services as well as advanced aluminium vacuum brazing (AVB) manufacturing capability. Please refer to the company website for further information.

#### Turn-key MRO&U Services



#### Service Information

For turbine engines including P&W F135; GE-F404, F414 and H80 /M601; Honeywell AGT1500 and TPE331-family; PWC PT6A-family.

TAE Aerospace has established full overhaul capability for a range of aero-derivative engines, providing cradle-to-grave Total Logistic Support services comprising:

- Program management;
- Engine fleet planning and life optimisation;
- Engine module heavy MRO&U and test services;
- Intermediate maintenance and engine testing at customer's operating base;
- Design and reliability engineering;
- Training;
- Condition monitoring services; and
- Material procurement, warehousing and distribution.

Delivered under an AS9100 and ISO9001 approved management system.

Test Cell Design and Upgrade: As an OEM licensed supplier TAE Aerospace develops solutions that are tailored to the customer's needs, as well as providing existing test cell upgrade or new solutions for a single or multiple OEM products. These can be modular to suit multiple engine types and are purpose designed for each location. The test cell design and project organisation employs registered professional engineers and project managers and has a wealth of experience catering to Turbofan, Turboprop, and Turboshaft engines and Auxiliary Power Units.

#### Availability

## **Tracey Brunstrom & Hammond**



Communications | Engineering | ICT & Cyber | Ship Building | Through-Life Support | Training & Education | Project Services

#### **Company Brief**

Tracey Brunstrom & Hammond (TBH) is an Australian, independently owned consultancy providing specialist project services. These services are founded in a core skill set of project and program time management, planning and scheduling.

TBH works across a wide range of project types, scales and sectors and TBH has a solid reputation across various sectors, for the provision of high-quality services in specialist project management disciplines, including:

- Project Planning & Scheduling
- P3M Design & Integration
- Cost Estimation and Control
- Risk Management
- Integrated Project Controls
- Claims and Dispute Resolution
- Project Management.

#### **Integrated Project Services**



#### Service Information

TBH's suite of Project, Program and Portfolio services offers clients comprehensive and adaptable solutions to ensure successful and timely completion of projects. These services have been matured via many successful engagements, across multiple sectors and through TBH's years of collective experience with Defence, industry and broader government clients.

The core offerings to the Defence sector include:

Planning Services: Program Planning and Scheduling, Schedule Risk Analysis and expertise with all major scheduling tools including OPP, Primavera P6 and MS Project to deliver accurate project visibility and control.

Integrated Project Control Services: Cost and Earned Value Management (EVM), Baseline management and Risk Management provided by experienced staff.

P3M Services: The Project, Program and Portfolio Management (P3M) service enable strategic alignment and effective operation through effective design, planning and building of fit-for-purpose Project Management Office (PMO) capability.

All of these services can be integrated to existing client structures.

#### Availability

## Tufwrap Australia



Design | Logistics | Manufacturing

#### **Company Brief**

Tufwrap is an Australian owned and operated company providing service, supplies and training in environmental containment and asset preservation with complete logistical monitoring and transport protection.

The comprehensive knowledge and networks within industries allows the provision of turn-key, end to end tailored solutions that can be implemented across a broad scope of sectors and asset life-cycles.

The capability to develop, manufacture and innovate leads Tufwrap to achieving efficient results, cost effectively. Tufwrap is growing through south-east Asia and have a network of global partners.

#### **Containment and Preservation Systems**



#### Service Information

Tufwrap supplies services, supply and training in:

- Onsite containment services,
- Containment supplies, accessories and tools,
- Tufwrap <sup>™</sup> manufactured containment sheeting 190mm – 900mmUV plus FR,
- Cover/Bags converted polymeric systems polymer fabrication.

On-site preservation services include:

- Non-volatile preservation systems (intercept ™ Technology,
- Preservation bags, films, foams and fabrics,
- Anti-corrosion and ESD thermos forming and thermos plastic products and systems,
- Humidity control products,
- Barrier systems,
- Rust removal and pre-preservation asset rejuvenation,
- ESD Systems,
- Project logistic services,
- Environmental monitoring and online digital tracking.

#### Availability

### Varec



Engineering | Logistics | Fuels Management/Control Solutions

#### **Company Brief**

Varec, a wholly owned subsidiary of Leidos, is a worldwide leader in fuels and other bulk liquid management systems for total asset visibility and control by supplying integrated hardware and software solutions to the oil and gas, defence and aviation markets.

The company services the entire Asia-Pacific region from its corporate office based in Melbourne, Australia.

#### Fuel Management Solution Design, Products and Services



#### Service Information

Instrumentation – Advanced tank gauges, transmitters, communication devices and field instruments that automates the management of inventory in bulk storage tanks.

FuelsManager® Platform Suite of integrated software applications utilised to track, manage and control distribution and delivery of fuel products.

Accounting Application – Enables accurate tracking, management, reconciliation, and monitoring book vs. physical inventories.

Inventory Management Application – Provides users with a view of all measured and calculated inventory variables, alarms, and status for one or multiple tanks.

Leak Detection Application – Enhances safety monitoring for leaks and sending alerts when potential environmental hazards.

Load Rack Automation Application – Controls facility access, and facilitates, safe, and secure loading operations by integrating automation and safety equipment.

Into Plane Mobile Application - Displays arrival/departure-time, aircraft tail number, fuel load in real-time.

Systems Engineering and Integration – deep domain terminal expertise to help develop seamless integrations that bring multiple systems together.

#### Availability

## Vipac Engineers & Scientists



Engineering | Research & Development

#### **Company Brief**

Vipac Engineers & Scientists provides a broad range of testing and qualification services to the Air, Land and Sea sectors of the Defence industry. Core capabilities include:

- Environmental Testing vibration, thermal, shock, ingress protection
- Electrical Safety Testing cables, components
- Noise occupational, environmental, habitability, sound insulation, speech privacy
- Vibration structural, machine, component
- Thermal & Fluid Dynamics
- Design & Systems Engineering.

Proud contributors to projects including the Attack-class submarine, Collins-class submarine, ANZAC-class frigates, F-35A Joint Strike Fighter, F/A-18 Super Hornet, C-130J Hercules, P-3C Orion, Bushmaster PMV, and Defence infrastructure around Australia.

#### **Environmental Testing & Qualification Services**



#### Service Information

Vipac has offered environmental and electrical safety qualification testing of products and components for the past 46 years. Vipac's clients include the Australian Defence Force and global Defence primes.

The NATA-accredited Test Laboratories provide state-of-the-art climatic, mechanical and electrical testing services to Australian, Military and International standards.

Vipac engineers provide expert knowledge in the fields of shock and vibration, structural integrity, structural dynamics, modeling, simulation, weaponry integration, radiated noise, speech privacy, noise mitigation, airflow, fatigue and failure analysis.

#### Availability

< 3 months. Custom design and production.

# Section Five Disposal Scrapping Services



## **Australian Scrapping Services**

The following companies are members of Department of Defence Disposal Scrapping Services Standing Offer Panel. They offer a range of disposal services to the Australian Department of Defence.

## Birdon

Birdon offers innovative solutions to the military and marine industries. They have experienced considerable growth over the last forty years and now have operations across Australia, the USA and Europe. They are proud to be an efficient, responsible and highly responsive contractor – and this is demonstrated through clients returning again and again.

Recent previous experience includes:

- Ex HMAS Canberra preparation and scuttling as a dive site;
- 11 x Fremantle Class Patrol Boats disassembly, secure destruction and recycling;
- 23 x F111 Aircraft and 132 x engines disassembly, secure destruction and recycling;
- 201 x M113 Armoured Vehicles disassembly, secure destruction and recycling;
- Ex-HMAS Sydney secure destruction and recycling;
- Ex-HMAS Tobruk preparation and scuttling as a dive site; and
- Privately owned vessels for non-government clients.

## Sell & Parker Secure Destruction Services



Sell and Parker Secure Destruction has developed a complete recycling solution for the destruction and recycling of all Australian Defence Force assets.

Secure Collection and Destruction services with a Nationwide presence.

Complete Destruction and full recycling with removal of all embedded metal material. The destruction includes but is not limited to shredding, melting, shearing, cutting or burying.

Established processes for environmental management including ISO 9001 Quality Management Systems Certification.

Able to source licensed Hazardous disposal experts with appropriate resources and facilities.

## Sims Metal Management

Sims Metal Management is a global leader in metals and electronics recycling. Their leadership position has been built through an uncompromising commitment to safety, customer service and the expertise and loyalty of their extraordinary people. With over 230 locations across five continents and more than 6,000 dedicated employees, Sims Metal Management has unparalleled strength in terms of logistics, expertise and investment.

- Recycling and processing of metals for supply to both international and domestic markets;
- Recycling and processing of electronic waste for supply to both international and domestic markets On site dismantling and destruction service;
- On site dismantling and scrapping service;
- Wide range of plant and equipment available for the handling and transportation of processed and unprocessed scrap metals;
- Certified Destruction Service.





## Goal Professional Services



Goal Group Australia is made up of a matrix of small businesses working collaboratively with one another to deliver a breadth of consultancy services to businesses and organisations within the defence, government and corporate sectors.

Goal Group provides highly qualified and experienced Disposal consultants with capability for Destruction, Scrapping, Recycling, Hazardous Waste, Medical Supplies disposal, EO Disposal and other disposal services.

The Newcastle NSW facility offers key shipbuilding capabilities and a range of integrated services and is ideally positioned to support major air, sea or land asset disposals. Additionally, the team has access to other sites throughout Australia in Western Australia, Darwin and Broome.

## McMahon Services Australia



McMahon Services is an Australian construction services company. One of their core service offerings is end-to-end scrap processing and scrap disposal. They undertake contracts for the Australian Federal and State Government departments including the Department of Defence.

End to end scrap processing services to ensure Defence equipment is broken-down, scrapped, shredded, destroyed and disposed.

Ability to detect, and remove, or remediate, as appropriate, items from major Defence Equipment that may contain hazardous materials including contaminants such as Asbestos, Lead, Copper Beryllium, Chromates and Polyurethane Paint.

Ability to collect and transport major Defence Equipment from its current location to scrap facilities, in a discrete manner, and securely store until it is broken-down, scrapped, shredded, destroyed and disposed.

### Thales Australia



Thales Australia has had significant involvement in the Key Defence Asset (KDA) disposal programs. Some examples of KDA disposal projects include Bushmaster Armoured Vehicles, F111 Strike Aircrafts, explosive ordnance and Oberon Class Submarines.

Thales understands the complexities and risks associated with KDA disposal, and how this could expose Defence to significant security, financial and reputational issues. Using their experience to collaborate closely with the parties involved to mitigate these risks, Thales can be trusted to proactively manage these complexities when disposing of KDA.

With over 35 sites located across Australia, many locations being in strategic Defence locations, Thales can be relied upon to dispose of KDA in a discreet, environmentally compliant, and safe and highly secure way.

# Section Six Catalogue Company Details



# **Australian Primes**

Austal Ships www.austal.com Page listed: 32

BAE Systems Australia www.baesystems.com/en-aus/home Page listed: 35

Boeing Defence Australia www.boeing.com.au Page listed: 39

L3Harris – C4i / L3Harris – Micreo https://www.l3harris.com/ Page listed: 42, 43

Luerssen Australia https://www.luerssen.com.au/ Page listed: 44 Northrop Grumman https://www.northropgrumman.com/ Page listed: 45

SAAB Australia www.saab.com/region/saab-australia Page listed: 46

Supacat www.supacat.com Page listed: 48

Thales Australia www.thalesgroup.com/en/countries/asia-pacific/australia Page listed: 49

# **Australian Companies**

Advanced Manufacturing Alliance – CDU www.advancedmanufacturing.cdu.edu.au Page listed: 158

Advanced Navigation www.advancednavigation.com Page listed: 54

Aero Medical Engineering www.aeromedicalengineering.com/ Page listed: 55

AeroPM www.aeropm.net/ Page listed: 159

Aerospace & Mechanical Consulting Engineers www.amce.com.au/ Page listed: 56

**AFL Telecommunications** www.aflglobal.com/au.aspx Page listed: 57

Allied Data Systems www.allieddata.com.au Page listed: 58

archTIS www.archtis.com/ Page listed: 59

Asia Pacific Aircraft Storage www.apas.com.au Page listed: 160

Aspen Medical www.aspenmedical.com/ Page listed: 161 ASPIRE Wellness

www.spinesuit.com Page listed: 60

Australian Defence Apparel www.ada.com.au/ Page listed: 62

Australian Pump Industries www.aussiepumps.com.au Page listed: 61

Australian Target Systems www.atspl.com.au Page listed: 162

**AVI** www.avi.com.au Page listed: 163

AVT Australia www.ascentvision.com/au/ Page listed: 63

BAC Systems www.bacsystems.com.au/ Page listed: 64

Bale Defence www.baledefence.com Page listed: 65

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Cablex www.cablex.com.au/ Page listed: 166

**Carbonix** www.carbonix.com.au Page listed: 73

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CGear Australia www.cgear.com.au/ Page listed: 75

Chiron Global https://chironglobal.com/ Page listed: 75

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Clearbox Systems www.clearboxsystems.com.au Page listed: 78

CISTECH Solutions https://www.cistechsolutions.com.au/ Page listed: 79

**Cobham Aviation Services** www.cobhamaviationservices.com Page listed: 167

**Cogito Group** www.cogitogroup.com.au Page listed: 80

Conductix-Wampfler https://www.conductix.com.au/en Page listed: 81 Coolon LED Lighting www.coolon.com.au

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Craig International Ballistics www.ballistics.com.au Page listed: 83

**Daronmont Technologies** www.daronmont.com.au Page listed: 84

Datapod (Australia) http://www.datapod.com.au/ Page listed: 85

Defence Communications Industry www.defence-comms.org Page listed: 86

DefendTex https://www.defendtex.com/ Page listed: 168

**Direct Edge** www.directedge.com.au Page listed: 169

**DOEN Pacific** www.doen.com Page listed: 87

**DroneShield** www.droneshield.com Page listed: 88

Eclips www.eclips.engineering Page listed: 89

EDC Consultants https://edcgroup.com.au/ Page listed: 170

**Eggler Technology Training** www.ece.net.au Page listed: 171

Electro Optic Solutions www.eos-aus.com Page listed: 90

**EM Solutions** www.emsolutions.com.au Page listed: 91

Envirofluid https://envirofluid.com/ Page listed: 172

Fiomarine Industries http://fiomarine.com/ Page listed: 92

Fivecast www.fivecast.com Page listed: 93

**FLAIM Systems** www.flaimsystems.com Page listed: 94 Frontline Manufacturing http://frontlinemanufacturing.com.au/ Page listed: 173

Fugro Marine Australia https://www.fugro.com Page listed: 174

GC Precision Developments http://www.gcpdarms.com Page listed: 95

**General Dynamics Mediaware** www.mediaware.com.au Page listed: 96

**Geospatial Intelligence** www.geoint.com.au Page listed: 175

Griffin Marine Services http://www.griffinmarineservices.com.au/ Page listed: 176

**GVH Aerospace** www.gvhaerospace.com Page listed: 97

**H.I. Fraser** www.hifraser.com.au Page listed: 98

Hawker Pacific www.hawkerpacific.com Page listed: 177

Heatlie Barbecues https://www.heatlie.com.au/ Page listed: 178

**Hofmann Engineering** www.hofmannengineering.com Page listed: 179

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## McMahon Services Australia

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### Sell and Parker Secure Destruction Services

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## Sims Metal Management

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#### **Thales Australia**

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# Notes

# **Team Defence Australia**

## **Upcoming Trade Shows**

Expressions of interest for these events open closer to the event. Register for the CDIC newsletter to keep up to date with events, or email **cdic\_exports@industry.gov.au** for more information on the below Trade Shows.

MONTH	DATES	LOCATION	COUNTRY
January		Nil	
February	05–08	DefExpo	Lucknow India
February	11–16	Singapore Airshow	Changi Singapore
Mar–April	31–2	SOFEX	Amman Jordan
April	06–09	Sea-Air-Space (SAS) and G'day USA	Washington USA
April	20–23	Defence Services Asia	Kuala Lumpur Malaysia
Мау	11–14	Special Operations Forces Industry Conference (SOFIC)	Tampa USA
May	26–28	Underwater Defence Tech (UDT)	Rotterdam
June	02–04	TechNet Cyber	Baltimore
June	08–12	Eurosatory	Paris France
July	20–24	Farnborough Airshow	United Kingdom
September	01–03	Land Forces	Brisbane Australia
September	03–06	MSPO	Kielce Poland
October	11–13	AUSA	Washington USA
October	20–23	Euronaval	France
November	04–07	Indo Defence	Jakarta Indonesia
Nov-Dec	30–04	I/ITSEC	Orlando USA
December	01–04	Expo Naval 2020	Valparaiso Chile

Note: All trade shows are subject to be confirmed.

# **Contact Details**

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