SOVEREIGN DEFENCE & AEROSPACE

MADE IN NSW

AVALON 2023

CAPABILITY CATALOGUE

NSW GOVERNMENT

Investment NSW

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MINISTERS FOREWORD

This is an important time for Australia's defence and aerospace sector. In a climate of rising geopolitical tensions, growing our sovereign defence and aerospace industry has become a national priority.

With NSW hosting 40% of Australia's defence industry, more than a quarter of all national defence personnel, 80 ADF facilities and 21 bases and training areas, our state is integral to building and sustaining our nation's defence capability and capacity.

We have a technologically advanced, globally competitive industrial base, supported by a highly educated workforce with both technical and university qualifications. From materials research to complex systems of systems integration, we lead the development and delivery of advanced capabilities across all key elements of defence.

The NSW Liberal and Nationals Government is committed to expanding the sector even further, through a state-wide, place-based approach towards industry development driven by research, innovation, technology, and advanced manufacturing.

Our six cities model places the focus on NSW's key defence regions, including Greater Sydney, the Lower Hunter and Greater Newcastle, the Central Coast, Western Sydney and the Illawarra-Shoalhaven. This model is enhanced by our rapidly expanding precincts, including at Williamtown, Western Sydney, and South Jerrabomberra, which offer infrastructure and innovation ecosystems tailored for the evolving defence and aerospace industry.

To support this, the NSW Liberal and Nationals Government is investing over $40 million in targeted industry programs and financial incentives for defence and aerospace businesses.

In the rapidly changing global defence environment, research and development is the bedrock of Australia's future national security. NSW's 20 Year R&D Roadmap identifies many areas of comparative advantage relevant to the defence sector, including semiconductors, quantum and cybersecurity, all of which are being invested in through our Future Economy Fund and other industry programs.

These strengths will all be on display when NSW proudly hosts the world's largest space event, the International Astronautical Congress, in 2025, which will reinforce NSW's key role in the defence and aerospace industry's expansion into the stratosphere and beyond.

I hope you enjoy the 2023 Avalon Air Show.

The Hon. Alister Henskens SC MP

Minister for Enterprise, Investment and Trade
Minister for Science, Innovation and Technology
Minister for Sport
Minister for Skills and Training

CEO'S WELCOME MESSAGE

The NSW Government is committed to growing jobs, attracting investment and delivering innovation in our defence and aerospace sector – now and into the future.

The defence and aerospace sector is growing rapidly in NSW. By supporting this sector we're not only contributing to our national security, but we're also driving spill over benefits in adjacent sectors – delivering broader economic benefits for NSW.

As the State's premier investment attraction agency, Investment NSW is working with companies to relocate into and expand within NSW. Whether it is scaling up domestically or going global, we promote the opportunities our state offers businesses, visitors, students, international talent and our First Nations organisations. To create a platform for these companies, we consult widely across industry, and engage research institutions and across government to design and deliver tailored programs which reflect domestic and global trends. Wherever you are on your business journey, we are well positioned to help.

Our primary objective is to make NSW the most desirable place in the world to visit, study, invest and do business. To do this, we seek to create high-quality jobs, build globally competitive industries and deliver a resilient economy. The NSW Industry Development Framework underpins this work with a structured approach to growing our priority sectors including defence and aerospace.

NSW is already home to over 40 percent of Australia's globally competitive defence and aerospace businesses. The Avalon Air Show is an important platform for these businesses to showcase their outstanding sovereign capabilities that exist in NSW.

Connect with the Investment NSW Defence and Aerospace team to explore how working together, we can make opportunities happen. You can find them at **Hall 2, Stand 2M8.**

To find more detail about our defence and aerospace programs, and learn how we can collaborate, visit investment.nsw.gov.au/defence-and-aerospace

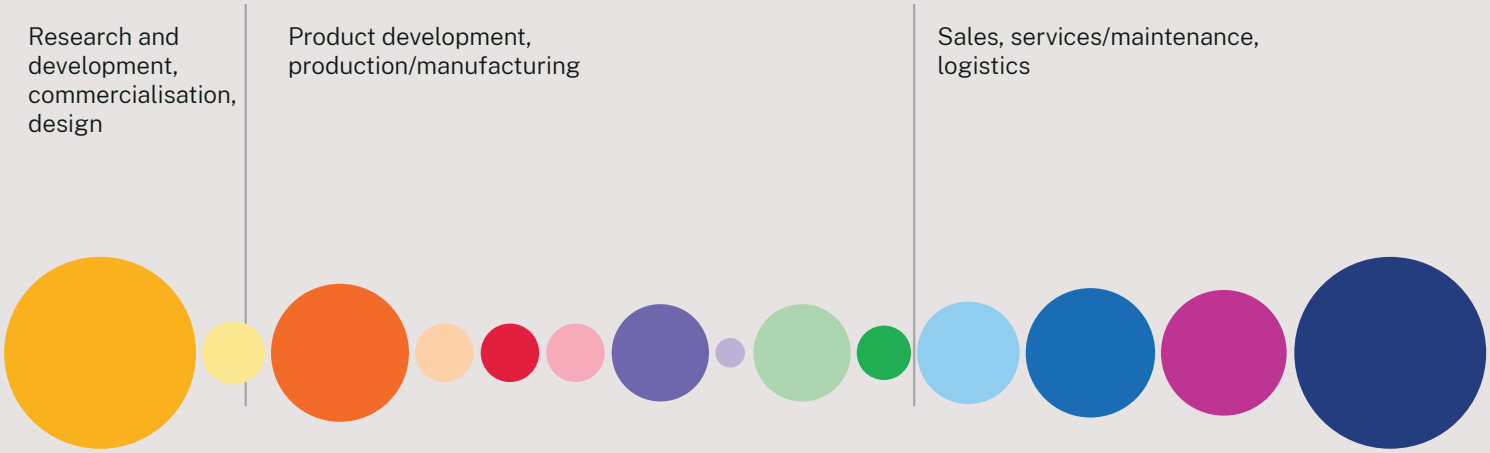
Katie Knight

Chief Executive Officer
Investment NSW

NSW DEFENCE AND AEROSPACE CAPABILITIES

The NSW defence and aerospace sector is underpinned by a strong industrial base, end-to-end supply chain capability and capacity and the largest industry footprint (assets and personnel) of all Australian states.

NSW has a deep and complex industrial base which includes capabilities in materials research, industrial design, ICT and complex systems integration. This industrial base positions NSW optimally to meet current and future workforce skills needs. NSW also has strong capacity across the defence sector supply chain which is supplemented by depth in adjacent sectors including advanced manufacturing and cybersecurity.



- Engineering and research
- Materials, composite, alloys
- Construction and manufacturing
- Vehicles, hardware equipments
- Unmanned systems
- Munitions, ordinance, explosives
- Electronic systems, sensors, hardware
- Propulsion systems
- Command, control and communications
- IT, cyber security
- Sales and service
- Training and safety
- Transport and logistics
- Support services

Our existing industry footprint encompasses more than 25 percent of Australia's military and defence civilian personnel and more defence bases and training sites (21) than any other Australian state or territory. NSW is also home to the largest defence industrial workforce (23K direct and indirect workers).

Our asset base is located strategically across the State, to cluster capabilities and foster economic growth, including leveraging the strengths of our regions. We also recognise the economic opportunities that sector investment can catalyse and sustain in these areas. For example, the Williamtown Special Activation Precinct in the Hunter Region is rapidly becoming one of the most significant innovation hubs for defence and aerospace programs on 5th generation defence platforms.

To align with Defence's priorities, NSW is building on its existing capacity with targeted investments across four key campaigns being Maritime, Guided Weapons and Explosive Ordnance, Space and Autonomous Systems. These campaigns leverage existing capability and capacity, align with the 2020 Defence Strategic Update, the 2020 Force Structure Plan, and position NSW as a key contributor to the technological expansion within the AUKUS trilateral security pact.

40% of Australia's Defence and Aerospace industry reside in NSW

25% of military and defence civilian personnel are resident in NSW

Significant capacity across the entire defence supply chain

Autonomous Systems

NSW understands that autonomous systems are critical enablers for future force capabilities, improving the speed and precision of decision-making processes to maintain a capability edge and defend against AI-enabled threats.

NSW is developing a collaborative Autonomous System network by enhancing links between research and industry needs, supporting the development of game-changing sovereign capabilities and establishing robust supply chains. Aligned to this, NSW is establishing a National Autonomous Systems Hub (NASH) to cater for Air, Land, Sea and Undersea systems, leveraging the existing innovation and industrial strengths across the state.

The NASH will provide a collaborative network of facilities that promotes an the end-to-end value chain including an innovation hub, state of the art advanced manufacturing, indoor and outdoor test and evaluation, as well as training and services.

Guided Weapons and Explosive Ordnance (GWEO)

As outlined in the Force Structure Plan 2020, supplies of precision munitions can quickly come under stress in times of tension, especially for those nations that possess little domestic capacity to manufacture them. Therefore, and amidst increasing contestation and supply chain disruption, the re-evaluation of the ADF's capacity to sustain operations is of ongoing importance.

To build resilience and self-reliance, Defence announced the accelerated establishment of a Guided Weapons and Explosive Ordnance (GWEO) Enterprise to enhance Australia's capability requirements.

NSW has the existing manufacturing and sustainment base to support the acceleration of the GWEO Enterprise, is already home to most of Australia's capabilities in this sector and will support Defence to progress investments to enhance this sovereign capability. These capabilities are integral to Defence's further investment to augment the Orchard Hills and Mulwala facilities and ongoing manufacturing at the Lithgow small arms factory.

Space

NSW has the broadest and deepest space capability in Australia, being home to over 40 percent of Australia's space industry and over 30 percent of the space workforce. Space organisations in NSW generate up to 75 percent of Australia's space-related revenue generation and 50 percent of Australia's space export revenue.

NSW is also the only state which boasts capability across every element of the space industry value chain, including:

- Advanced manufacturing
- Robotics
- High-tech instrumentation
- Smart payloads development
- Space situational awareness
- Satellite systems
- Space medicine and biology
- Commercialisation of space data

NSW recognises that Australia is increasingly reliant on satellite-based information and services, As a result, NSW has established the following initiatives to support space organisations;

- National Space Industry Hub
- NSW Node of the SmartSat CRC
- Space Research Network
- Waratah Seed Space Qualification Mission

This capacity will be further extended with the creation of the Australian Satellite Manufacturing Hub at Botany (within UTS Tech Labs) and Poplars at South Jerrabomberra.

NSW is also collaborating with the Australian Space Agency (ASA) to investigate the establishment of Australia's third launch site at Evans Head.

Maritime

A significant maritime industry exists in NSW, spanning the far North Coast to Newcastle, the Garden Island Defence Precinct in Sydney and Port Kembla in the Illawarra-Shoalhaven region.

Garden Island is the homeport for Navy's major fleet units on the East Coast and includes the Captain Cook graving dock, a major maintenance asset. NSW businesses participate fully in the maritime sustainment sector, providing services such as ship repair and refurbishment. The Navy's presence in and around Sydney Harbour is a highly complex network of interlinked facilities.

HMAS Kuttabul is the home of the Navy's Fleet Headquarters, and the other major Naval bases, HMAS Watson, HMAS Penguin and HMAS Waterhen are secure Sydney sites for other fleet assets and naval training.

A NSW port is the logical choice for the future East Coast Base. Both Port Kembla and Newcastle are well established, linked to extensive, robust supply chains and provide easy access to other Naval facilities, notably Garden Island.

40%

NSW is home to 40% of Australia's space industry

75%

NSW generates up to 75% of Australia's space-related revenue

Image: Narrabri Radio Telescope

NSW REGIONS AND PRECINCTS

NSW is proud of the extent of its defence and aerospace network and has adopted a whole-of-state approach to delivering sovereign defence capability. This expansive network takes full advantage of adjacent industries and sectors to maximise outputs and provide global opportunities for industry.

Image: The Defence, Industry, and Academic Network across NSW

CAPITAL

The Capital region extends to include Canberra, home to the Department of Defence and a significant number of defence prime contractors and defence specific SMEs. UNSW Canberra is leading research in cybersecurity and space technologies and is a centre of excellence in conducting impactful multidisciplinary research on future defence initiatives.

The recently established Poplars Innovation Precinct, within the NSW Government's Regional Job Precinct (located in South Jerrabomberra) is a greenfield industrial business park adjacent to the Australian Capital Territory and an international airport. The Precinct will focus on defence, space, cybersecurity, and high-tech manufacturing businesses.

Key capabilities

- Access to a large, educated workforce (Canberra population of 452,000)
- 15 minutes from an international airport for export
- Satellite manufacturing facility funded by State and Federal Governments and Industry Partners
- Direct access to key logistics and freight options (road, rail)
- Competitive land costs – with buy or lease options tailored to the requirements of investors
- Education and research partnerships with the University of NSW and University of Canberra
- Large data centre in Stage One
- 1500 new residential blocks being built in South Jerrabomberra
- $35M electricity upgrade currently underway for the Jerrabomberra area
- New Jerrabomberra High School site located within precinct
- Innovation Precinct (business park) complemented by 13ha Retail and Service Precinct
- Large industrial lots with a minimum lot size of 4,000m^2
- Triple redundancy telecommunication networks including access to the Intra-governmental Communications Network
- Proximity to multiple research institutions – Universities, TAFEs and Colleges
- Close to decision makers (15 minutes from Canberra)
- One of four NSW Regional Jobs Precincts attracting State Government Support, including accelerated planning assistance and infrastructure support
- $30M government investment for key infrastructure to supercharge the site
- A supportive and motivated local approval authority (Council)

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HUNTER

The Hunter region is the largest economy in Regional NSW, contributing over A$65B to the NSW economy. The Hunter has strengths across advanced manufacturing, aerospace, defence, tourism and mining. With its increased focus on the knowledge economy, a dynamic start-up sector has developed. NSW Government investment in infrastructure and the roll-out of Australia's most sophisticated 'Internet of Things' platform across the Newcastle CBD facilitates future expansion.

The Williamtown Special Activation Precinct has been identified by the NSW Government as a precinct that will create the defence and aerospace hub, boost the local economy and generate thousands of new jobs for the region. Williamtown is home to Newcastle Airport and RAAF Base Williamtown – Australia's primary defence Fighter Base. It is a globally significant hub for defence, aerospace and advanced manufacturing research and development to support the F-35 Joint Strike Fighter program.

The region is fast becoming a significant innovation hub for defence and aerospace work on 5th Generation fighting platforms and home to some of the largest defence primes and highly capable SMEs. The Astra Aerolab Precinct at Newcastle Airport and RAAF Base Williamtown create a hub for the defence, space, cybersecurity, information technology, and scientific research sectors to collaborate, innovate and become more globally competitive.

Image: Courtesy of Department of Defence

Key capabilities

- Home to fleet of F-35
- Existing airport and RAAF airbase providing direct access to runways, maintenance and support services
- Strong defence network within the Williamtown area – from airbase, training facilities, sustainment services
- High level of technically skilled workforce to support defence, aerospace and advanced manufacturing
- Anchor tenants and Defence Primes such as RAAF, BAE Systems, Boeing Defence Australia, Lockheed Martin, Northrop Grumman, Raytheon and Thales
- The University of Newcastle (a global top 350 university) and local TAFE campus provides access to a diverse talent pool and industrial research connections

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ILLAWARRA-SHOALHAVEN

Traditionally known for its world-class steel making and coal mining industries, the region's economy is today driven by the advanced manufacturing, ICT and professional services and defence sectors. The region's significant defence presence is anchored by the Australian naval aviation station HMAS Albatross and the Albatross Aviation Technology Park (AATP). Global prime contractors have established themselves at the AATP to service both HMAS Albatross and the national defence sector.

Renowned as Australia's centre for naval aviation, the Illawarra-Shoalhaven also has an extensive base of support businesses offering capabilities across joint domains in land, sea and air. The region is home to several defence companies employing a highly skilled workforce.

Image: Courtesy of Department of Defence

Key capabilities

- The University of Wollongong and local TAFE campuses provide access to a diverse talent pool and industrial research connections that drive leading edge innovation in defence technologies
- Albatross Aviation Technology Park (AATP) is designed specifically to support defence and aviation industries. The 35 hectare estate adjoins the airfield of HMAS Albatross and is connected by taxiways to the base
- Wollongong is an hour's drive south of Sydney and the international airport and will be readily connected with the new Nancy Bird-Walton airport in Western Sydney
- Proximity to defence facilities, including Garden Island, HMAS Albatross and HMAS Creswell
- Port Kembla, a deep-water port, provides businesses based in Wollongong with access to global markets and is situated five kilometres south of the Wollongong CBD
- Leading defence research and development organisations established by or in partnership with the University of Wollongong (UOW): DMTC, Smart Infrastructure Facility the Steel Research Hub and the UOW Institute of Cybersecurity and Cryptology
- Illawarra Innovation Industry Network (i3Net) is an organisation with an array of manufacturers, engineering service providers and industrial suppliers
- BlueScope master planning for 200 hectares (500 acres) of excess landholdings adjacent to the Port Kembla Steelworks

Web details

investwollongong.com.au/key-opportunities/defence

shoalhavendefence.com.au

business.shoalhaven.nsw.gov.au

i3net.com.au

investregional.nsw.gov.au/regions/illawarra-shoalhaven

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NORTH COAST

The North Coast has numerous defence industry capabilities, in and around the towns of Yamba and Port Macquarie, supporting defence, government and commercial organisations in Australia and internationally.

The regions have developed a strong defence and maritime manufacturing base, particularly for small vessel and ship module construction as well as maintaining the Navy's fleet. NSW is the major supporter of the defence maritime sector, and the North Coast is a significant player within the NSW maritime ecosystem.

Image: Courtesy of Birdon

Key capabilities

- Small vessel design and manufacturing
- Maritime sustainment and disposals
- Advanced design, manufacturing and support of specialist defence products
- Key Defence companies include:
  - Birdon – Top 20 Defence SME
  - Bale Defence
  - Yamba Welding and Engineering (YWE) – a subsidiary of Australian veteran owned watercraft manufacturer – The Whiskey Group

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RIVERINA-MURRAY

Located in Southern NSW, the Riverina-Murray Region is one of Australia's main food producing regions and a leader in advanced manufacturing. It has a significant defence capability located on main transport networks linking Brisbane, Melbourne, and Sydney.

The strategic location operates intermodal freight hubs and is home to military and specialised contract engineering with expertise in propellant and military explosive manufacturing. All three services support cadet training.

The Wagga Wagga Special Activation Precinct is home to the Army Recruit Training Centre Blamey Barracks, Kapooka and RAAF Base Wagga. It is also close to Mulwala, the primary centre for Australia's explosive ordnance and munitions. Skilled labour is readily supplied through Charles Sturt University and a range of TAFE campuses.

Image: Courtesy of Department of Defence

Key capabilities

- Home to two business activation precincts – the Wagga Wagga Special Activation Precinct and the Albury Regional Jobs Precinct
- Military training
- Propellant and explosive manufacturing, and munitions disposal
- Specialist contract engineering
- Helicopter maintenance and component overhaul
- Targetry system design and manufacturing
- Alternators and portable power solutions, and armored vehicle kits
- Region includes Thales in Mulwala and BAE Systems at the RAAF Base Wagga
- Diverse range of advanced manufacturing and construction capabilities
- Highly skilled workforce
- Strong digital connectivity
- National freight corridors connect the region to ports and international airports in capital cities, and several intermodal freight hubs in the region
- Remote large open spaces ideal for developments in UAV and space testing facilities
- Lower cost of living than metro centres including economical, industrial and commercial land and thriving localised supply chains

Key programs

The Riverina Defence Redevelopment Program will see the large-scale redevelopment of three key Defence Training Bases located in the Riverina Murray. The approximately $1.3B seven-year program will see the construction of infrastructure and facilities at RAAF Base Wagga, Blamey Barracks (Kapooka) in Wagga Wagga, and the Albury Wodonga Military Area.

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SYDNEY

Sydney, the capital of NSW, is Australia's largest city and economic leader. Sydney is home to 600 regional headquarters of multinational companies, including digital technology giants such as Google, Microsoft, and Amazon. The city also hosts nearly half of the top 600 large enterprises in Australia, including Atlassian.

The Tech Central Precinct in the heart of Sydney is home to some of Australia's most exciting start-ups and innovative institutions. It brings together the brightest minds to solve our society's great challenges, creating the technologies that will power the future. Tech Central Precinct supports new and emerging industries with business models based on new technologies like artificial intelligence, or business needs like cybersecurity.

Image: Courtesy of Department of Defence

Key capabilities

- World-class universities with active defence and space programs including:
  - Australian Centre for Field Robotics – The University of Sydney (USYD)
  - Training Centre for CubeSats, UAVs, and Their Applications (CUAVA) – USYD
  - Australian Centre for Space Engineering Research (ACSER) – University of NSW (UNSW)
  - Defence Research Institute – UNSW
  - Defence Innovation Network
  - Space Research Network
- Sydney is also home to:
  - Cicada Innovations – Deep tech incubator
  - National Space Industry Hub
  - Defence Science Technology Group
  - World-leading research hospital
  - Over 100 research institutes and centres of excellence.
  - Tech giants, frontier start-ups, ambitious students, pioneering academics, creatives, developers, and scientists
  - Tech Central offers up to 250,000 square metres of space for technology companies, including 50,000 square metres at affordable rates for start-ups and scale-ups, in a connected location brimming with heritage, culture and activity

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WESTERN SYDNEY

The Western Sydney Aerotropolis, being developed by The Western Parkland City Authority, has an established defence presence with several Australian Defence Force bases, personnel, and facilities located across the region. The prime contractors, co-located in Defence bases and facilities in the region, are supported by Australia's deepest supply chain of specialist SMEs in defence and adjacent industries, located across Western Sydney, Australia's high tech industrial heartland.

The Bradfield City Centre, Australia's new hub for sovereign capability in defence, space and aerospace, will incorporate a national security quarter that will strengthen NSW's existing defence sector ecosystem, complementing established and growing capabilities in greater Sydney and across the region.

The NSW Government is establishing the Advanced Manufacturing Research Facility to support industry innovation, collaboration and growth across Western Sydney. Located within Bradfield, the AMRF will be a shared-use facility providing industry-partners with cutting-edge capability in areas such as advanced electronics, radio and radar technology, composite manufacturing, and additive manufacturing. This cornerstone investment by the NSW Government, will support the growth of Bradfield as Australia's newest hub for sovereign industrial capability, while providing unprecedented opportunities to expand and assure the defence supply chain. The AMRF will be positioned adjacent to the CSIRO and several major universities, establishing a multi-varsity footprint at the Aerotropolis.

Image: Courtesy of Western Parkland City Authority

Key capabilities

- Royal Australian Air Force Base Richmond
- Royal Australian Air Force Base Glenbrook
- Liverpool Military Area, with significant army presence at Holsworthy and Moorebank
- Defence Establishment Orchard Hills
- Advanced Manufacturing Research Facility (AMRF) operational in 2024

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NSW GOVERNMENT STAND – INDUSTRY EXHIBITORS

NSW supports an incredibly diverse network of defence and aerospace industry, academics, entrepreneurs and innovators. From integrators and manufacturers of complex defence, aerospace and security systems to specialists in sensor enhancing technologies, NSW industry exhibitors offer a wide range of services and capabilities in the defence and aerospace sector.

The following pages highlight a mere handful of NSW companies that demonstrate the strengths and opportunities present in the NSW defence and aerospace industry.

RAAF F-35A Lighting II Air Combat Aircraft
Image: Courtesy of the Department of Defence

ADVANCED NAVIGATION

Advanced Navigation is a privately owned Australian company specialising in the development of navigation technologies and robotics. Its mission is to drive the autonomy revolution with AI-powered solutions.

As Advanced Navigation's founders are from a background involving mission critical robotics built to military specification, creating hardware and software of the highest quality standard is the core focus.

The company's engineers have specialised expertise across a broad range of fields including sensors, GNSS, inertial navigation, RFV technologies, acoustics, robotics, AI and algorithms.

Capabilities and key discriminators

Advanced Navigation develops industry-leading navigation systems for defence and commercial markets. As a global leader in air, land, and sea navigation, our solutions are designed for the highest level of performance at the lowest SWaP-C (size,weight, power consumption and cost).

- Greater mission endurance due to demonstrated lower SWaP-C
- High accuracy dead-reckoning positioning, up to 12x improvement compared to equivalent industry-standards systems
- Industry-leading technical support from qualified engineers

Key customers and partners

- Boeing
- Lockheed Martin
- Nasa JPL
- Bae Systems
- Raytheon
- Leonardo
- Thales

Products and services

IMU/AHRS

- Orientus: Rugged and cost-effective IMU
- Motus: Ultra-high accuracy MEMS IMU

MEMS GNSS/INS

- Spatial: Cost-effective single antenna INS
- Certus: Market-leading dual antenna INS
- Certus-Evo: Ultra-high accuracy MEMS INS

FOG GNSS/INS

- Spatial FOG Dual: Industry-proven FOG INS
- Boreas D90: The world's first fully digital FOG

Acoustic Navigation

- Subsonus: Revolutionary USBL and INS
- Subsonus Tag: High-endurance Subsea Transponder

Other

- Cloud Ground Control, Drone Fleet Management
- GNSS/INS Post Processing
- Satellite Compass
- Speed Sensors
- Subsea Antennas

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ADVANCED NAVIGATION

AEROSPACE TRAINING SOLUTIONS (AIR AFFAIRS AUSTRALIA PTY LTD)

Established in 1996 to meet industry needs, Aerospace Training Services (ATS) is an ASQA Registered Training Organisation as well as a CASA Approved Part 147 Maintenance Training Organisation.

ATS training is focused on our innovative EVET Higher School Certificate and apprenticeship training programs, including providing Initial Aircraft Technician Training to the Royal Australian Navy. Working collaboratively with our customers, ATS provides customised training plans that meet the requirements of the industry.

By utilising online eLearning platforms, ATS provides further flexible delivery options for students and employers. This allows apprentices to be in the workplace, gaining valuable on the job training and less disruptions to employers' workforce.

Capabilities – products and services

- Certificate IV Aeroskills (Mechanical)
- Certificate IV Aeroskills (Avionics)
- Diploma Aeroskills (Avionics)
- Certificate III Aviation(Cabin Crew) (EVET)
- Certificate II Aeroskills (EVET)
- Certificate III Aircraft Life Support and Furnishing

Key discriminators

- Fully customised training meeting the requirements of ASQA, CASA and the customer as required
- Flexible delivery to suit the timing and requirements of the customer

Key customers and partners

- Royal Australian Navy – Aircraft Technician Training
- Air Affairs Australia
- NSW Department of Education – HSC EVET program and Apprenticeship programs

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AEROSPACE TRAINING SERVICES
A QINETIQ Company

ALKATH GROUP

The Alkath Group (incorporating Global Defence Solutions, Mellori Solutions and Resilience Logistics Solutions) is an Australian-owned manufacturer and innovator of deployable field infrastructure solutions and electromagnetic spectrum training, testing and technology.

Winning multiple awards for our work, we have successfully delivered meaningful solutions for numerous projects across Defence for over 20 years.

Our current accreditations include ISO-9001-Quality, ISO-14001-Environment, ISO-27001-Information Security and ISO-45001-WHS.

Capabilities – products and services

- Deployable catering and hygiene systems
- Containerised Shelter Systems (Heavy Fabrication)
- Soft Shelter Systems (Textiles Fabrication)
- Lighting and power distribution
- Deployable air-conditioning
- Dedicated Maintenance, Repair and Overhaul Facility based in NSW
- EW Training – provision of enhanced capability and understanding of core Electromagnetic Warfare (EW) Systems
- EW Testing – delivery of enhanced insight and intelligence for mission-critical EW systems
- EW Technology – delivery of innovative and user-friendly EW applications and systems

Key discriminators

- 100% Australian owned and controlled
- Ongoing integration, servicing and support services available on-site or at dedicated GDS facility
- Delivering to MIL-SPEC and non-MIL-SPEC
- Our DFI range can be custom built or easily adapted to meet unique requirements
- ISO 9001, 14001, 27001 and 45001. NSW-based state-of-the-art EW research laboratory fitted with the latest specialist high frequency test equipment, radar simulators and wideband EW receivers
- Highly experienced technicians provide best-in-class EW training to arm you with enhanced capability and understanding of core EW systems

Key customers and partners

- Saab Australia – partners in delivering JP2060 Phase 3 – Australia's Deployable Health Capability Program
- Thomas Global – providing Integrated Trainer Containers
- Quasar Satellite Technologies – design and delivery of Phased Array Ground Station containers
- Joint Electronic Warfare Operational Support Unit (JEWOSU) – providing specialist EW support since 2010
- Royal Australian Navy (RAN) – providing training, testing and verification of EW Sensors and Millimetric frequency range
- Australian Army – EW Simulator and training

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Alkath GROUP

GDS Global Defence Solutions | mellori MELLORI SOLUTIONS PTY LTD | RLS Resilience Logistic Solutions

APPLIED VIRTUAL SIMULATION PTY LTD

Applied Virtual Simulation (AVS) is an Australian Veteran-owned business established in 2016. AVS is the leading supplier of simulation-based training solutions and engineering services including designing, building, integrating and supporting a range of training systems for Defence including collective training devices, simulation software environments, models, and terrains. AVS has delivered a range of simulation-based training systems to the Australian Army which are used to train hundreds of soldiers annually and has been awarded the Land Simulation Core 2.0 Tranche 1 contract – the most significant modernisation of simulation technology in the history of the Australian Army. With a range of systems currently under development for aviation training – including collective flight training devices, AVS will be seeking opportunities to expand its footprint in this area.

Capabilities – products and services

- Australian Army's Land Simulation Core 2.0 Common Simulation Software project will see AVS deliver a unified simulation software environment including virtual and constructive simulation to the Army
- AVS also has a range of simulation-based training systems and emulated military equipment (EME) which can provide turn-key training capability or be easily integrated into existing or future simulators including aviation tactical trainers such as our firms AH-64E Apache Helicopter Tactical Trainer
- AVS has developed an Air Mission Training System (AMTS) ground-based training environment concept supported by MAK software used by the Royal Air Force UK MoD. Gladiator project – Defence Operation Training Capability (Air). The AVS AMTS concept can provide fully integrated training for a range of aircrew and mission specialist roles including Weapons Systems Officer, Air Battle Management and Air Traffic Control. This system comprises realistic operation consoles/stations and crew cockpits for trainees, as well as Instructor Operator Stations supported by an Integrated Learning Environment

Key discriminators

- AVS can provide extensive defence knowledge and experience to its software services, such as software configuration, content terratin and scenario development, interoperability, and integration services
- AVS has a proven track record delivering training systems based on common simulation environments
- AVS has a proven track record of delivering low-cost, high value training systems to military customers
- The AVS team of experienced engineers and technicians possesses an extensive range of in-house capability of cutting-edge, advanced manufacturing technology and software engineering/integration technical skills to provide any bespoke training solution requirement

Key customers and partners

- Australian Army – Land Simulation Core 2.0 Tranche 1
- Australian Army – Protected Mobility Tactical Trainer (PMTT)
- Australian Army – Recon Surveillance Sniper Training Systems (RSST)
- Australian Army – Protected Route Clearance Capability Remediation and Sustainment (PRCC)
- Australian Army – Remote Weapon Station Desktop Trainer (RWSDT)

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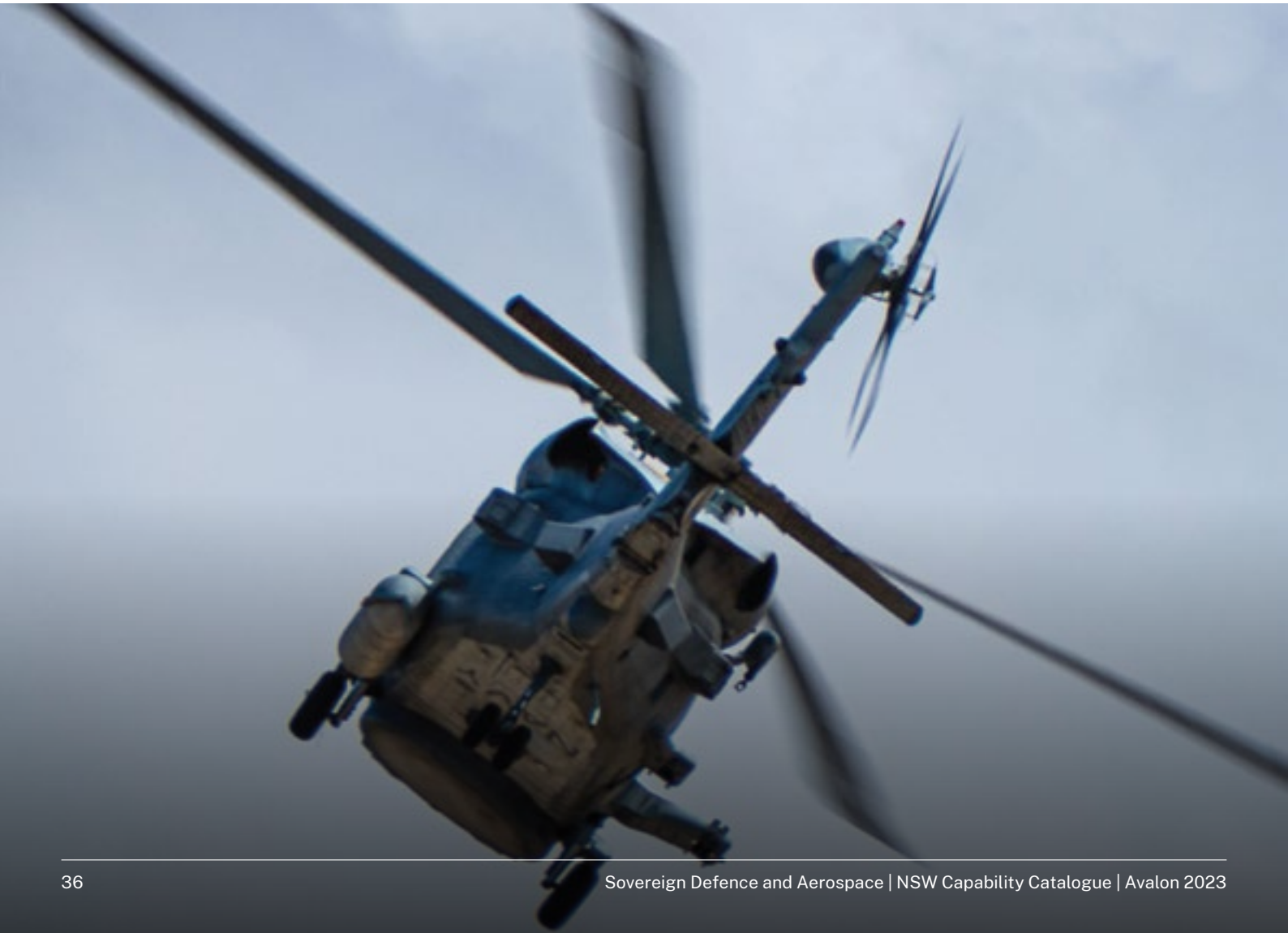
APPLIED VIRTUAL
AVS
SIMULATION

AUSTRALIAN AEROSPACE ENGINEERING PTY LTD

Australian Aerospace Engineering (AAE) is a Part 145 Aircraft Maintenance Repair and Overhaul facility, manufacturer of aeronautical products and distributor of aerospace hardware.

Our Mission: To keep our customers flying by delivering outstanding solutions across MRO, manufacturing and parts distribution.



Capabilities – products and services

- Maintenance, Repair and Overhaul (MRO) of aircraft and mechanical component assemblies
- Complex aircraft and component structural repair
- Engineering design coupled with build-to-print manufacturing (including assembly and FAI inspection)
- Low volume, long duration production runs requiring configuration management
- Precision CNC machining of ferrous, non-ferrous, plastic, and composite parts
- Tooling and training aid design and manufacture
- Eaton hose assemblies and fluid conveyance products from the Aeroquip® product line
- Logistics and warehousing including controlled product storage and distribution

Key discriminators

- Australian owned SME with a 33-year history of supporting Defence and industry
- Exclusive aerospace hose shop for Eaton's Aeroquip® product line
- Extensive experience in aircraft MRO/ structural repair with the use of precision fixtures
- Delivers 6000+orders across 900+ customers per annum
- OTD = 97% Accuracy = 99.8% Customer Sat = 99.9%

Quality accreditations to

- CASA Part 145 Maintenance Organisation
- CASA Part 21G Production Certificate
- AS9100D, AS9110C, AS9120B, ISO9001:2015
- Cybersecurity Compliant with ISO27001
- Defence Recognized Supplier
- EAR/ITAR import export experience

Key customers and partners

Key Customers

- Australian Defence Force
- Rosebank Engineering
- EOS Defence Systems
- Pennant Australasia
- Sikorsky Australia (Lockheed Martin)
- 800+ Commerical and general aviation customers

Key Suppliers/Partners

- Eaton
- Monroe Aerospace
- DMTC
- DI Advisory services

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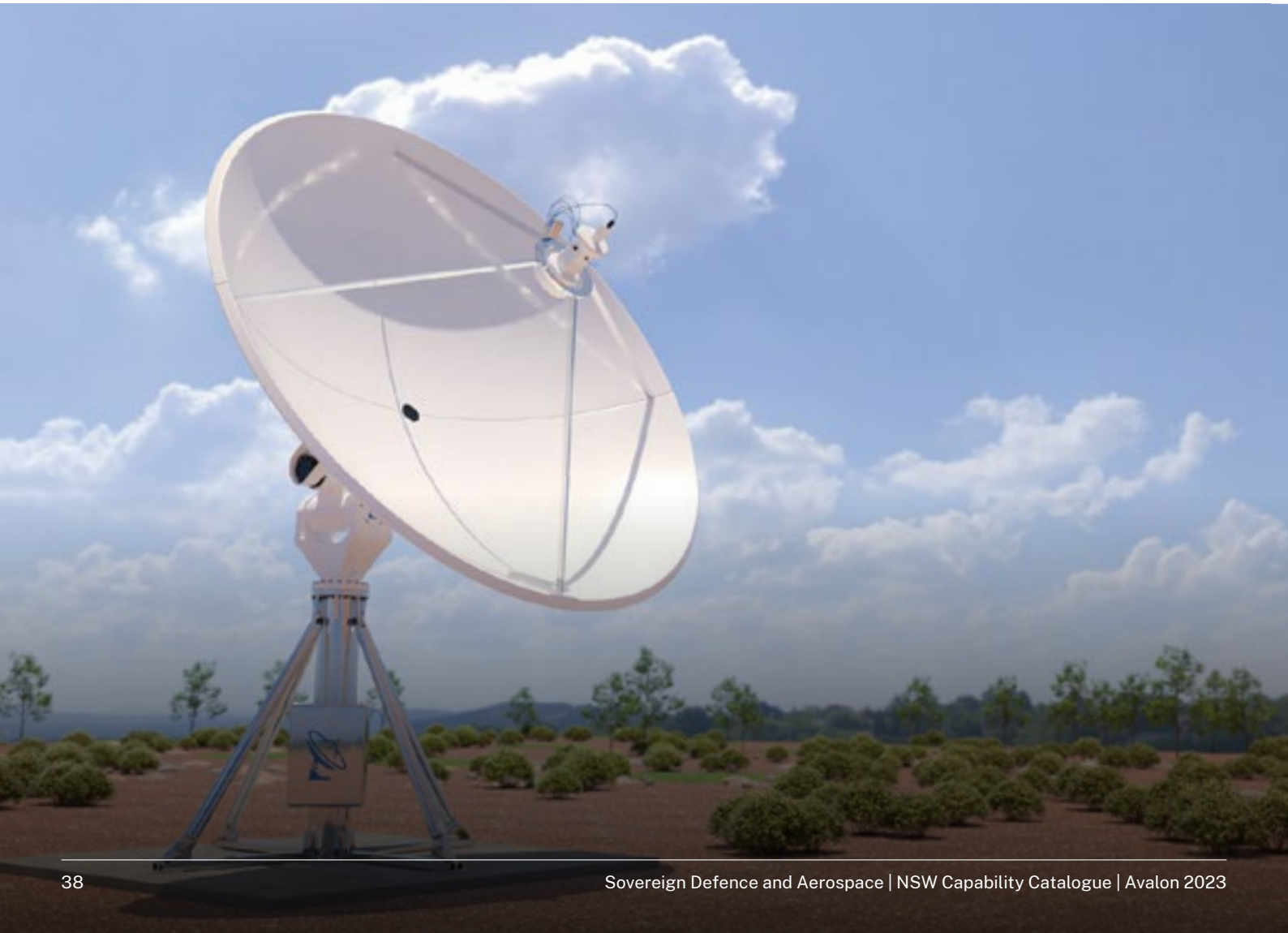
AUSTRALIAN AEROSPACE ENGINEERING

AV-COMM PTY LTD

Av-Comm was established in 1981. With 41 years of SATCOM experience, Av-Comm is the longest-standing privately-owned satellite communications company in the Southern Hemisphere. Av-Comm builds, operates, and maintains satellite communications ground infrastructure throughout Australia and the Asia-Pacific. Av-Comm's team of specialists are SATCOM experts in field engineering and technical services, project and risk management, maintenance and sustainment, and system design and manufacturing.

Av-Comm operates in the following defence oriented segments: Satellite Communications (SATCOM), Space Domain Awareness, Earth Observation, Counter-Space, Astronomy, and Civilian Space. With our Australian made Cassowary Satellite Ground Station, Av-Comm showcases Australian capability with local manufacturing experience to provide ground stations designed specifically for each customer's needs, overcoming international supply chain and logistics bottlenecks.



Capabilities – products and services

Cassowary Satellite Ground Station

- Sales of Cassowary Satellite Ground Stations antenna systems to satellite manufacturers and constellation operators
- Partnering with satellite manufacturers and downstream users to design the ground segment in parallel with the spacecraft to ensure mission success
- Partnering with satellite manufacturers to design the ground segment in parallel with the spacecraft to ensure mission success

Professional Services

- Sales of field engineering, project management, and whole-of-life sustainment services to government, military, government space agencies, and satellite operators
- Partnering with space agencies and satellite ground station operators to develop tailored solutions
- Collaboration with academia for validation and verification

Key discriminators

Cassowary Satellite Ground Station

- Made in Australia with full design authority, overcomes supply chain and logistics bottlenecks
- Supports multiple orbits in low-earth, mid-earth and geostationary orbits, maximising your ground station capability
- Designed using X over Y geometry, eliminating the key-hole effect, utilising 100% of the satellite's pass for data acquisition
- Carbon fibre reflector supports multiple frequency bands, including L, S, X, C, Ku and Ka

Professional Services

- Av-Comm's in-house, Australian technical staff support geostationary and non-geostationary satellite ground station systems with 41 years of multidisciplinary expertise
- Personnel are available in Sydney, Canberra and Perth, Australia, United Kingdom, United States of America, New Zealand, Papua New Guinea, Solomon Islands, Fiji, Nauru, and Vanuatu

Key customers and partners

- Australian Department of Foreign Affairs and Trade
- Australian Department of Defence (ASD)
- Lockheed Martin Australia
- General Dynamics Mission Systems
- Intelsat
- Papua New Guinea DataCo
- Australian Broadcasting Corporation
- Comtech Ground Systems
- University of New South Wales

Key suppliers

- Communications and Power Industries (CPI)
- Calian
- General Dynamics Mission Systems (GDMS)
- Oneweb

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Av-Comm
SPACE & DEFENCE

AVCRM

AVCRM is the Aerodromes and RPAS industry leading compliance software provider. Allowing companies to automate and manage their daily workflows, AVCRM provides an easy solution to risk and compliance management. Achieving “paperless operations”, the platform has been built and developed within the aviation industry’s strict regulation and compliance framework.

Each solution is fully customisable to the client’s needs and budget, from large corporations to small business owners. With a combined 70 years of experience in the aviation field, AVCRM intrinsically understands the requirements of its clients and is consistently adapting to ensure our products stay up to date and current with industry needs.

Capabilities – products and services

- CASR Part 139 Aerodrome compliance workflow management
- CASR Part 101 RPAS compliance workflow management
- Streamlined operations
- Improved paperless record keeping and reporting
- Full implementation support including team training and ongoing support
- Improved operational oversight

Key discriminators

- Most customisable platform on the market
- Cost effective, user-based price structure
- Continual product improvement
- User friendly and customisable to client requirements
- Australian based infrastructure and data security
- Full implementation support including team training and ongoing support
- Australian owned and operated

Key customers and partners

- Government agencies at all levels
- Law enforcement
- Emergency services
- Small/medium enterprise
- Large organisations and enterprise
- Over 1100 organisations using our products

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CHIEF FLUID SYSTEMS

Chief Fluid Systems is a 100% Australian owned and operated fluid conveying products and services provider. Chief Fluid Systems is a Department of Defence top tier – low risk accredited supplier, LORS holder, DISP member, as well as a critical supplier to the Royal Australian Navy and many of the various prime defence contractors in Australia. We have the capacity to supply a wide range of standard products, while also developing innovative solutions and products tailored to the needs of the customer.

Capabilities – products and services

- Manufacturing hose assemblies to customer specification
- Hydrostatic pressure testing and certification of hoses and fittings up to 4,000 bar
- Strip down, inspect, assess, rebuild and test capabilities for hoses, adaptors, refuelling at sea probes and HIFR nozzles
- Hose and fittings survey capability and database management
- Underwing, Overwing, closed circuit, and pressure refuelling nozzles
- Design, prototype, field evaluation, final product development, and supply service
- Cataloguing of supplied product

Key discriminators

- A commitment to quality that keeps Chief an industry leader
- A dedicated workforce that understands the industry we work in
- Various type approvals to meet customer needs – DNV-GL, LR
- ISO 9001:2015 JAS-ANZ certification
- A global network of suppliers meaning we can source, buy and service anywhere in the world; this includes breakdowns
- Fully equipped workshop
- On-site services including inspection, surveying, testing, and delivery
- Rapid response service

Key customers and partners

- Australian Department of Defence – AASPO
- Australian Department of Defence – ACSSPO
- Australian Department of Defence – ANZACSPO
- Department of Defence – AORSPO
- Australian Department of Defence – DDGSPO
- Australian Department of Defence – LHDSPO
- Australian Department of Defence – MASU-NASPO
- Australian Department of Defence – MCPSPO
- Australian Department of Defence – MUAS-NASPO
- Australian Department of Defence – NCB
- BAE Systems
- Thales Australia
- NSM Group
- Atlantic and Peninsula Group
- Navantia Australia
- Sofraco Engineered Systems

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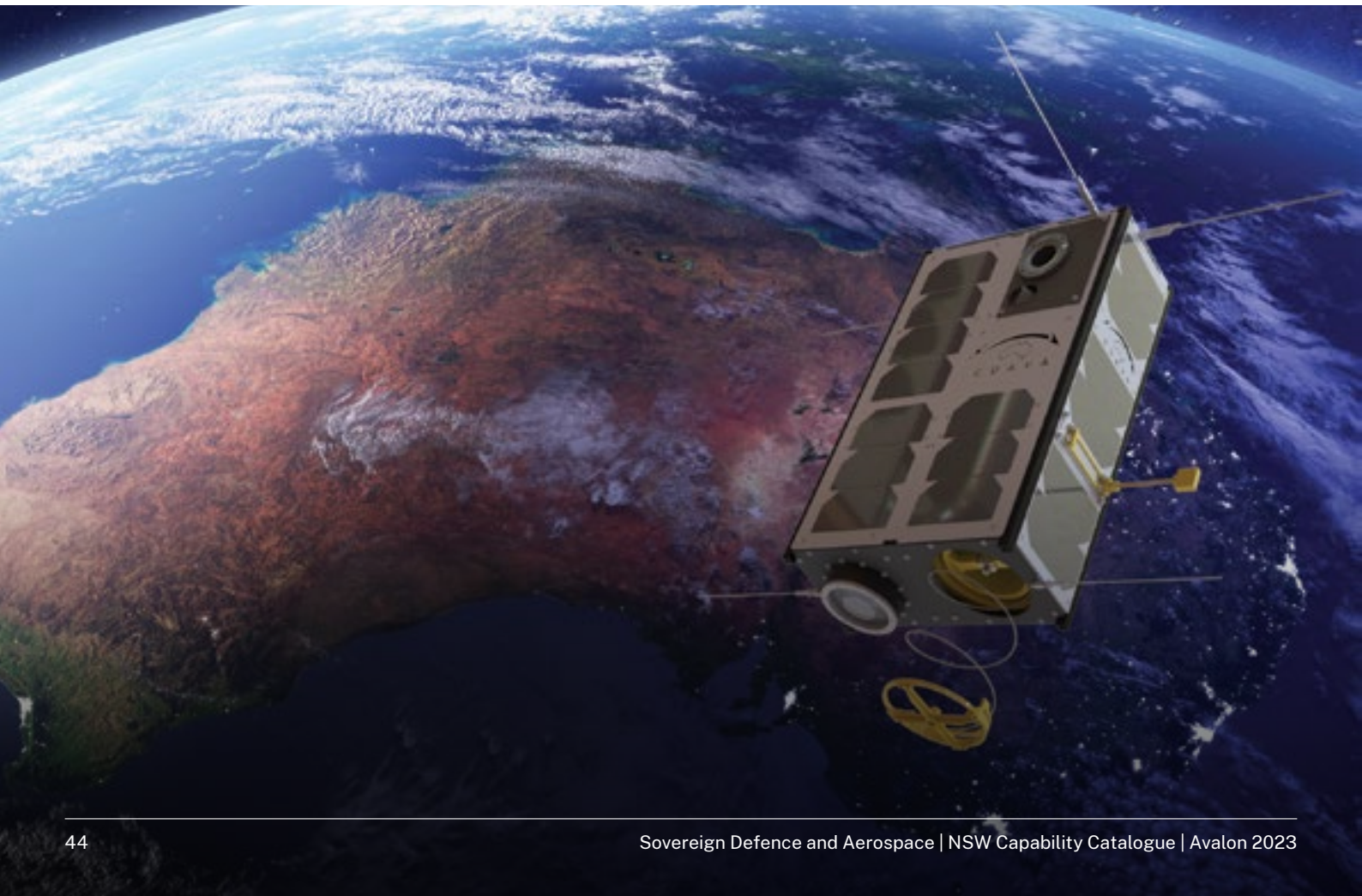
CUAVA (ARC TRAINING CENTRE FOR CUBESATS, UAVS, AND APPLICATIONS) AND WARATAH SEED

The ARC Training Centre for CubeSats, UAVs, and Their Applications (CUAVA) has 9 Australian partners and 1 US partner, made up of 4 universities, 3 Government units, and 3 companies. It is funded by the Australian Research Council's Industry Transformation Training Program to help develop the human capital, technical capabilities, and commercial products required to grow a world-class Australian industry in CubeSats, UAVs, and related areas. CUAVA addresses particular research challenges and is in its 5th year, with 2 more expected. So far, CUAVA has spun off 4 start-ups. Recently, CUAVA was picked to develop the NSW Government's Pilot Space Qualification Project, an industry ride-share satellite now called Waratah Seed.



Key research interests and priority technologies

- Training people for space sector research and space industry via multi-partner research projects involving satellites, UAVs, and applications
- CubeSat design, building, testing, and operation: CUAVA-1 (2021 launch), CUAVA-2, and Waratah
- UAV mission design and operation
- Remote-sensing applications from soil moisture to coastal/marine environment monitoring to object recognition
- Advanced optical instruments: Hyperspectral (Vis-NIR) and infrared imaging
- Low-cost COTS hyperspectral imaging (OpenHSI)
- GPS reflectometry and occultation instruments
- Startrackers and GPS-degraded optical navigation
- Space environment payloads: thermal plasma, radio, radiation, and space debris
- Space weather measurements and prediction from the Earth's surface to the Sun

Key partners

- USYD, UNSW, Macquarie University, and Rochester Institute of Technology (USA)
- DSTG Platforms and Air and Space
- Saber Astronautics
- Arbor Carbon
- HyVista
- Bureau of Meteorology, Space Services unit
- Investment NSW
- SmartSat NSW Node, Aurora Cluster and CRC

Key programs

- Training of > 11 PhD, 5 Masters, 3 Honours, and > 50 project students for space research/industry
- CUAVA-2 CubeSat [launch October 2023]
- Waratah Seed CubeSat (NSW Government Pilot Space Qualification Project) [October 2023 launch]
- OpenHSI hyperspectral and RedEye-1 IR imagers
- CROSS startracker and optical navigation
- Harry GPS reflectometry instrument
- EDDI electron density and space debris detector

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CUAVA

WARATAH SEED

CUVOS

Cuvos is a privately-owned Australian company specialising in enhancing sensor technologies. Our technology improves signal-to-noise ratios in all conditions and has world-leading results in the most complex and challenging environments.

The management team at Cuvos have had considerable success in the past developing and commercialising a range of innovative products that have been sold in all the world's major financial markets and institutions. We intend to take a similar approach to the defence sector as we have in finance.

Our engineering team comprises of world-leading experts in neuromorphic systems, embedded hardware and software design.

Capabilities – products and services

- Real-time sensor enhancement
- Technology can be integrated into existing systems or operate as a stand alone process

Key discriminators

- Sensor agnostic
- Cutting edge technology – patents pending
- No comparable product exists in the market

Key customers and partners

- BAE
- Defence Innovation Hub

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CUVOS

DEFENCE INNOVATION NETWORK

Defence Innovation Network is a university-led initiative of the NSW Government and the Defence Science and Technology Group to enhance NSW and ACT Defence industry capability through collaboration between industry and universities.

Since its establishment in 2017, DIN has attracted over 100 projects representing more than $100M in cutting edge defence related R&D investment to NSW, leading to already commercialised new capabilities and near-to-market next generation innovations. The DIN's recent successes include the $1.5M investment to develop world first quantum sensing prototypes and $1.5M investment to deliver breakthrough technology in cyber, remote undersea surveillance, space and information warfare.

Services

- R&D collaborative funding programs
- Internships and scholarships
- Access to 8 leading universities in NSW and ACT

Expertise and R&D capabilities in:

- Quantum technologies
- Cyber
- Space
- Information warfare
- Robotics, AI, machine learning
- Advanced manufacturing and materials
- Human performance

Key customers and partners

- Department of Defence, various projects
- US Military, quantum and neuromorphic sensor technologies
- Advanced Navigation, quantum positioning, navigation and timing
- Droneshield, drone detection using deep learning
- Thales, future mine countermeasure technology

Upcoming events

- Sandpit Workshop – 30 March 2023
- DIN Industry Forum: Digital Technologies – 27 April 2023
- DIN Industry Forum: Next-Gen Communication – 22 June 2023
- DIN Industry Forum: Uncrewed Systems in Deployed Environment – 19 October 2023

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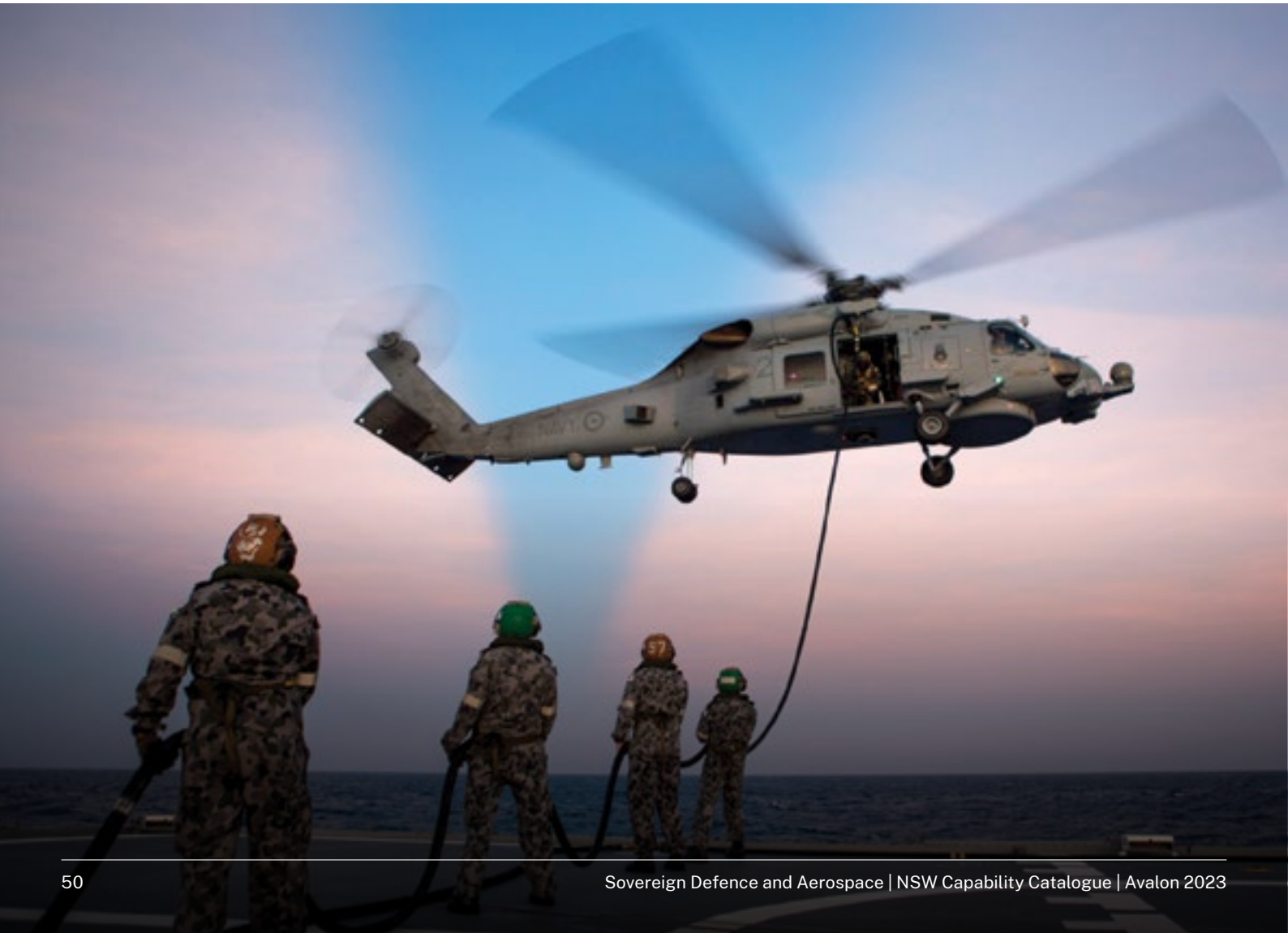
DEFENCE INNOVATION NETWORK
To go far, go together

DEPARTMENT OF REGIONAL NSW – ILLAWARRA-SHOALHAVEN DEFENCE INDUSTRY NETWORK

The Illawarra-Shoalhaven is a region with significant defence presence which is anchored by the Australian naval aviation at HMAS Albatross and the Albatross Aviation Technology Park (AATP). Global prime contractors have established themselves at the AATP to service both HMAS Albatross and the national defence sector.

The region is well connected to domestic and international markets through a high-quality broadband network, road and rail connections into Sydney and other markets on Australia's east coast, and NSW's third largest port at Port Kembla and the Illawarra Regional Airport.



Services

Illawarra

- Armoured steel plate
- High-end welding and engineering
- Advanced fabrication
- Blasting and metal preparation
- Electrical isolators and enclosures
- Specialist protective coatings
- Ruggedised medical computing devices and communication systems
- Project management services
- Gearbox manufacturing
- Engineering design
- On-site services
- Project management services

Shoalhaven

- Accredited Aircraft Maintenance Engineer Training
- Advanced manufacturing
- Anti-submarine warfare – training and testing
- Armour and exotic material processing
- Avionics test and repair
- AIR9000 Phase 8 – sustainment
- Deployable infrastructure – build and maintain
- Electronic warfare – testing and validation
- Humanitarian assistance and disaster relief – training
- Jet air support
- Joint Adversarial Training and Testing Services (JATTS)
- Joint Airborne Rescue Services (JARS)
- Medical support and retrieval
- Project SEA129-5 – Maritime Tactical Unmanned Aerial System (MTUAS)
- Provision of aerial target services from aircraft
- Proximity to Jervis Bay and Naval Eastern Exercise Area
- Search and rescue
- University of Wollongong – Industry 4.0 Hub research, training and industry partnerships

Key capabilities and partners

- Albatross Aviation Technology Park (AATP) is designed specifically to support defence and aviation industries. The 35 hectare estate adjoins the airfield of HMAS Albatross and is connected by taxiways to the base
- Wollongong is an hour south from Sydney and its international Airport
- Close proximity to defence facilities, including Garden Island, HMAS Albatross and HMAS Creswell
- Port Kembla a deep water port, provides businesses based in Wollongong with access to global markets and is situated five kilometres south of the Wollongong CBD
- Leading defence research and development organisations established by or in partnership with the University of Wollongong (UOW). DMTC, Smart Infrastructure Facility the Steel Research Hub and the UOW Institute of Cybersecurity and Cryptology
- Illawarra Innovation Industry Network (i3 net) is an organisation that has an array of manufacturers, engineering service providers and industrial suppliers
- BlueScope master planning for 200 hectares (500 acres) of excess landholdings

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ILLAWARRA + SHOALHAVEN REGIONAL DEFENCE NETWORK

DRONESHIELD

DroneShield is a developer and manufacturer of defence and security solutions to detect, identify and defeat unauthorized unmanned aerial systems (UAS) using proprietary multi-sensor technology, real-time alerts, digital evidence collection and soft-kill automated disruption of controller-to-drone communications.

DroneShield recognizes the potential of applying our solutions more broadly across a wide frequency coverage to detect, analyse, and combat future threats. Our business is equally focused on driving effort into research and development (R&D) to explore and deliver new capabilities.

Capabilities – products and services

- DroneSentry360: fixed site, drone detection, tracking and defeat solution
- RfPatrol: passive mobile hand-held drone scanner
- DroneGun: directional, field deployable, non-kinetic disruption of command and control, FPV, RF and GNSS
- RfOne MKII: passive, long range RF detection
- DroneSentry-X: vehicle, ship and fixed site C-UAS detect-and-defeat
- DroneSentry-C2: sensor fusion AI command and control platform – on-prem or cloud based
- Development and manufacturing based in Sydney, Australia

Key discriminators

- Advanced detection and mitigation solutions of Unmanned Aerial Systems across various mission domains
- Systems Purposely Designed with Minimal Cogitative Burden in Mind
- Head Office – Sydney (AUS)
- Sales: Sydney (AUS) and Virginia (USA)
- RF sensing, AI/ML, computer vision, sensor fusion, and electronic warfare (EW) , interoperable with other currently fielded technology, sensors and platforms
- DRO teams include veterans from special operations and intel communities
- Australian based development and manufacturing

Key customers and partners

- Australian Government Department of Defence
- US Department of Homeland Security
- US Airforce/Navy/Army
- UK Ministry of Defence
- Australian Federal Police
- NZ Defence Force
- Airforce Research Laboratory
- BT
- Thales

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DRONESHIELD

GME

For over 60 years, GME has been an industry leader in the RF communication technology space where we are the only Australian manufacturer of UHF CB Radios and Emergency Beacon products.

Located in Sydney's western suburbs, we operate from our purpose-built headquarters, employing over 200 staff. This state-of-the-art facility houses our research and development, engineering, quality assurance, manufacturing, warehousing, and technical service functions. GME is a current Supplier of several codified items to the Australian Defence Force across our existing product portfolio: including Emergency Beacons, UHF CB Radios, Antennas and power supply products.

Today GME proudly remains a family-owned private company and is proudly 100% Australian.

Capabilities – products and services

- Codified items across our existing product portfolio. Including emergency beacons, two-way radios, antennas and power supply products
- Australian designed and manufactured GPS Personal Locator Beacon
- Full design “Build to Print”, R&D and test capabilities
- Scalable on-site manufacturing capability
- Accredited Zone 4 High Assurance electronics manufacturing capability

Key discriminators

- 25% of staff hold appropriate security clearances
- Offers OEM’s significantly higher Sovereign Industrial Capability
- Technology advanced Surface Mount Technology
- Optical inspection and X-ray manufacturing equipment
- Exporter to over 40 countries
- Defence Industry Security Program (DISP) member – level 2

Key customers and partners

- EOS Pty Ltd
- Penten Pty Ltd
- Codan-Domo Tactical Communications (DTC)
- L3Harris
- Rheinmetal
- Rural Fire Service
- Ergon Energy

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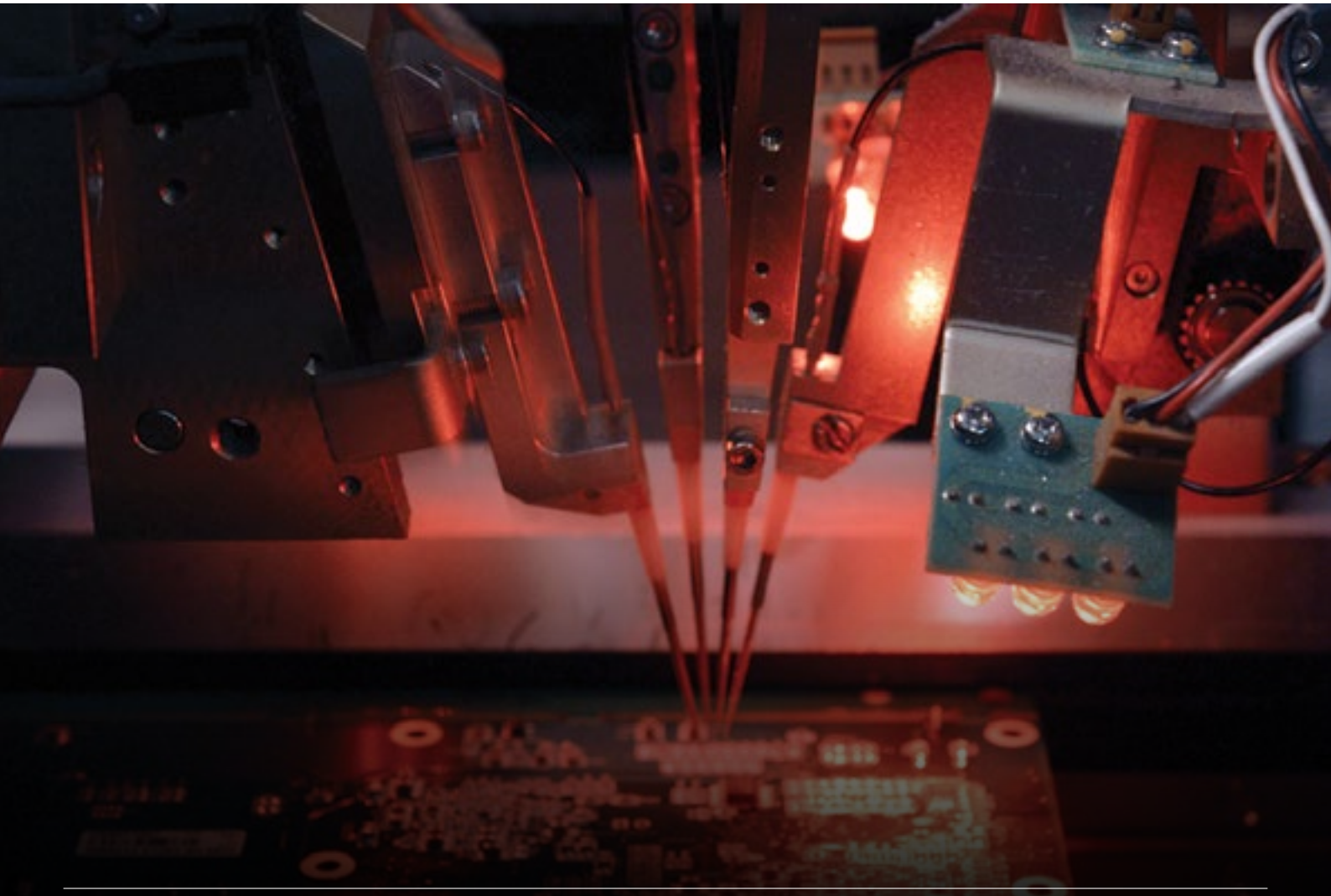
GPC ELECTRONICS PTY LTD

GPC Electronics Pty Ltd is Australia's largest contract electronics manufacturer. The company has more than 35 years experience with advanced manufacturing of complex electronics and units for a range of renowned aerospace and defence organisations such as Boeing Defence, Thales, BAE Systems, Rheinmetall, Thomas Global and Carbonix, to mention a few.



Capabilities – products and services

- Design for excellence (DFX), including DFA, DFM, DFT, DFC, DFS, and DFL
- Prototyping and NPI
- Electronics manufacturing services
  - SMT, AOI, X-Ray, ICT, Wave solder, Selective solder, Robotic solder
- Cable harnesses
- Box build/system integration
- Advanced component and system testing
- Supply chain management
- After sales service

Key discriminators

- Highly flexible manufacturing capability from Low-Volume High-Mix to High-Volume Low-Mix to adapt to our customers' business operations
- Three SMT lines capable of more than 600,000 placements per hour
- Very robust and proven processes providing the highest possible quality and reliability for your applications, reducing risk and cost
- Large flexible in-house box-build and system integration capacity

Key customers and partners

GPC Electronics is your highly accredited contract electronics manufacturing facility. Our customers include:

- Boeing Defence
- Thales
- BAE Systems
- Rheinmetall
- Thomas Global
- Carbonix

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HUNTERNET COOPERATIVE

The Hunter is home to Australia's key air combat, battlespace management and missile defence systems. This has driven the development of a sophisticated industry network in advanced aerospace, maritime manufacturing, cybersecurity, simulation and smart technologies.

Hunter Defence represents over 100 companies in the Hunter region competing for prime and supply chain contracts. It prepares them for these opportunities and helps them articulate their value proposition and capabilities to government and major defence industry players.

Capabilities – products and services

Hunter Defence is a collaborative task force focused on demonstrating the capability of established Hunter Defence industry suppliers to Government, CASG, ODIS and Primes and up-skilling local SMEs to become 'defence ready'.

This work involves understanding regional defence capabilities and capacities, aligning them with opportunities, encouraging SMEs to form advanced capability groups, and synergising broader product offerings via closer collaboration.

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HYPERSONIX LAUNCH SYSTEMS

Hypersonix Launch Systems is an Australian aerospace engineering company specialising in scramjets and hypersonic vehicles for defence and commercial applications. Hypersonix core technology is the SPARTAN scramjet engine: a fixed geometry (no moving parts), self-igniting, hydrogen powered, 3D printed, reusable scramjet capable of speeds from Mach 5 to Mach 12. The engine can be turned off and on at will, thus enabling unique trajectories. It can be manufactured at scale using 3D printing of high temperature alloys or high temperature composites. This is in line with Australia's modern manufacturing/sovereign capability initiatives.

Capabilities – products and services

- DART AE is a 3-metre, multi-mission hypersonic test platform
- VISR is a hypersonic ISR platform (Intelligence, Surveillance and Reconnaissance)
- DELTA-VELOS ORBITER responsive satellite launch
- Mach 7, range 1,000km, additive manufacturing, fully autonomous, unguided boost, first launch 2024.
- Reusable, hydrogen powered, top speed Mach 12, range 3,500km, powered by SPARTAN scramjets
- Constellation refurbishment, many orbits from single launch site, accelerates Mach 5-Mach 12

Key discriminators

- Mach 5-Mach 12 range
- Fixed geometry (no moving parts)
- Self-igniting (start/restart)
- Fuel efficient (2,500km on 10kg hydrogen)
- Can be 3D printed or made out of high temperature composites
- CEO and CTO co-founders have had more than 35 years in the Aerospace sector
- Hypersonix assembled a C-suite of managers with extensive disruptive technology business, project execution and technical experience

Key customers and partners

- Hypersonix was awarded a $8M Modern Manufacturing Initiative MMI Defence grant
- Hypersonix was awarded a $2.95M Cooperative Research Centres Project (CRC-P) grant with partners Romar Engineering, University of Southern Queensland (USQ) and LSM Advanced Composites
- Shortlisted on a major US Defense HyCAT procurement exercise (Defense Innovation Unit, DIU)
- Shortlisted for Australian Defence Innovation Hub bid
- Key partnerships suppliers: BOC Linde Group (green hydrogen), Siemens (STAR CCM+ software), Amazon web services (AWS), Hexagon Purus (hydrogen tank), Amiga engineering (3D Printing)

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HYPERSONIX
LAUNCH SYSTEMS

INVERIS TRAINING SOLUTIONS AUSTRALIA

InVeris Training Solutions Australia is proud to be a long-term supplier to the ADF through supplying, management, and operation of the Weapons Training Simulation Systems (WTSS). In 2023, we will be introducing important sovereign capability to Australia through an innovative range of live fire target and training solutions. We are also introducing the ground-breaking SRCE augmented reality training system to the ADF.

InVeris Training Solutions (formerly Meggitt Training Systems)is the world leader for integrated live fire and virtual weapons training systems for defence forces, law enforcement agencies and commercial shooting range owners around the world with over 95 years of live fire training experience.

Capabilities – products and services

InVeris Training Solutions supports Defence Forces around the world with best in class;

- Weapons training simulation systems
- SRCE augmented reality weapons training
- Live fire target systems
- Live fire range construction and maintenance
- Mobile shipping container live fire ranges

Key discriminators

For more than 95 years, ours is a business that has delivered 1000's live fire, virtual and combined live/virtual ranges and target systems across the globe.

In a rapidly changing and complex geo-political environment InVeris Training Solutions is responding with innovations to allow Defence Forces to be prepared:

- Introducing sovereign capability to Australia by bringing back local manufacturing of electromechanical targets to Australia
- Introducing the DefendX mobile shipping container live fire range
- Introducing the ground-breaking SRCE (See, Rehearse, Collectively Experience) AR weapons training system
- 95 years experience of range design, construction and maintenance

Key customers and partners

InVeris Training Solutions is the trusted partner for the ADF for the supply, maintenance and operation of the WTSS (Weapons Training Simulation Systems) and live fire targets and ranges around the globe.

- Army, Navy, Air Force
- Singapore Defence Forces
- Bruneian Armed Forces
- British Army
- United States Military

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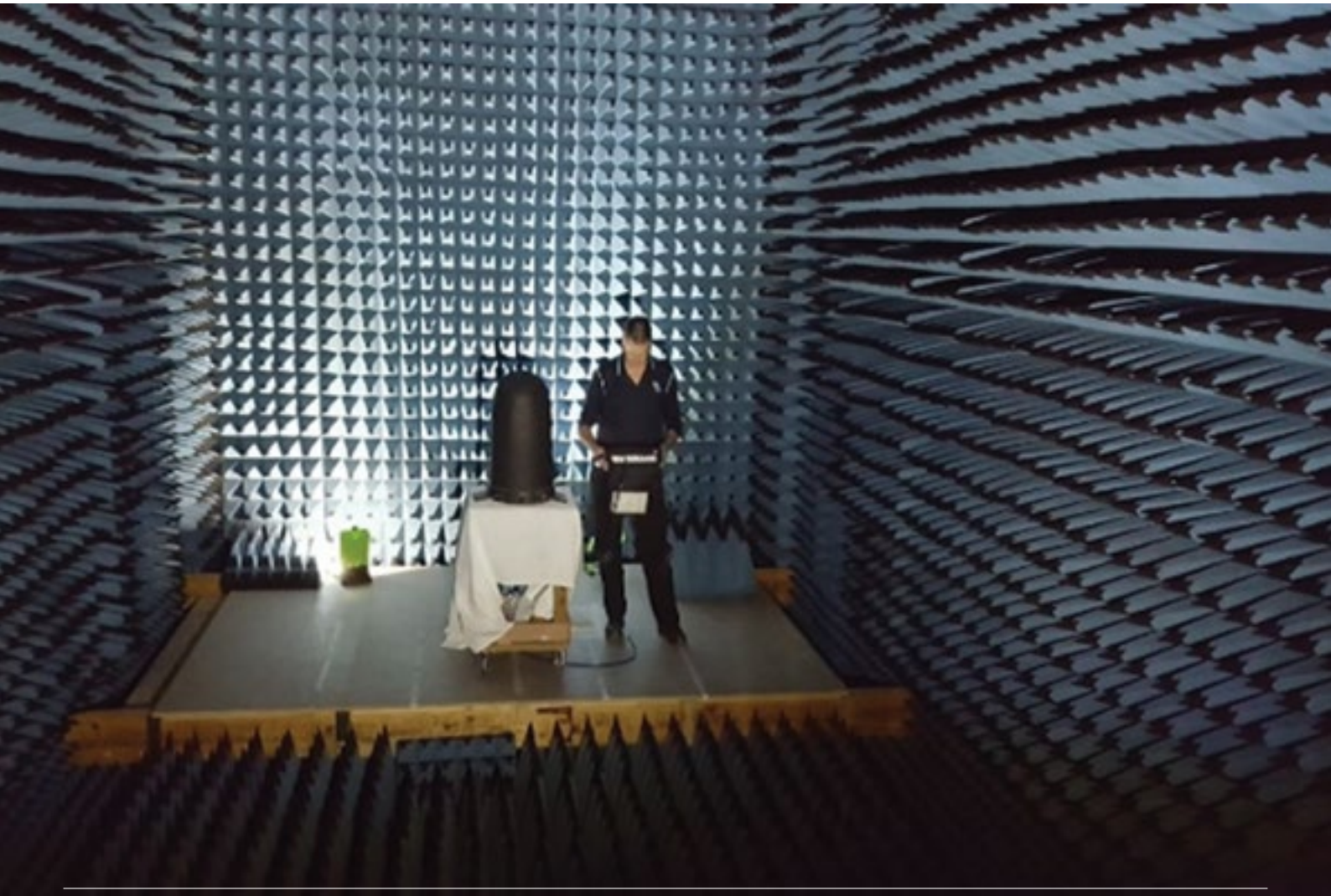
InVeris Training Solutions™

JENKINS ENGINEERING DEFENCE SYSTEMS

JEDS is a wholly-owned Australian company 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 radome and electronics equipment design, manufacture, repair and overhaul, test, calibration, antenna measurement 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.



Capabilities – products and services

- Field-service support
- Wharf-side maintenance
- Defect investigation
- Defect rectification
- Planned maintenance
- Design authority support
- Professional advice
- Supply chain management
- Configuration Control
- Quality Assurance
- Depot level repair
- Product research and development

Key discriminators

JEDS has supported the ADF since it was founded in 1989 with 2800m^2 facilities in Sydney, NSW and 1000m^2 facilities in Rockingham (near Perth), Western Australia.

The majority of JEDS 45+ employees:

- maintain NV1/NV2 national security clearances
- have ADF, other Defence, or dockyard experience
- hold relevant Degree or Diploma level qualifications
- undergo continuous training/improvement programs both locally and overseas

JEDS maintains a significant Investment in Specialised RF and Communication Test Equipment up to 40 GHz:

- 10m x 5m x 5m fully-automated Far Field Anechoic Test Chamber (0.4-40 GHz)
- 7.2m x 4.8m x 4.8m 7-axis/measurement mode Near Field Scanner Anechoic Chamber (0.5-40 GHz)

Key customers and partners

Australian Defence Force (ADF):

- Prime contractor for major acquisition and sustainment contracts
- Design and manufacture remotely-operated sonobuoy launcher, electronic units for Collins class submarines, and Lowband DF EW subsystems for Hobart Destroyer and ANZAC frigate programs.
- Installation and support of overseas OEM-supplied systems
- ELINT analysis, training, recording and playback software tools
- Developing (Defence Innovation Hub) a small formfactor Radar-EW system that addresses detection/exploitation of modern radar signals

- JEDS has contracted to Australian Prime Contractors: BAE Systems, Lockheed Martin, Raytheon, Boeing, Saab Systems, ASC and United Group and worked with many other small to medium enterprises (SME)
- L3Harris Technologies – Sales and support representative for their EW and antenna products in Australia
- Southwest Research Institute – Sales and support representative for their Signal Exploitation and Geo-location Division
- Terma A/S – Marketing and support representative their maritime defense, security and surveillance products
- Lockheed Martin – Representative for their Oceanographic Systems Group's Expendable Mobile ASW Training Target System (EMATTS) and ocean probes

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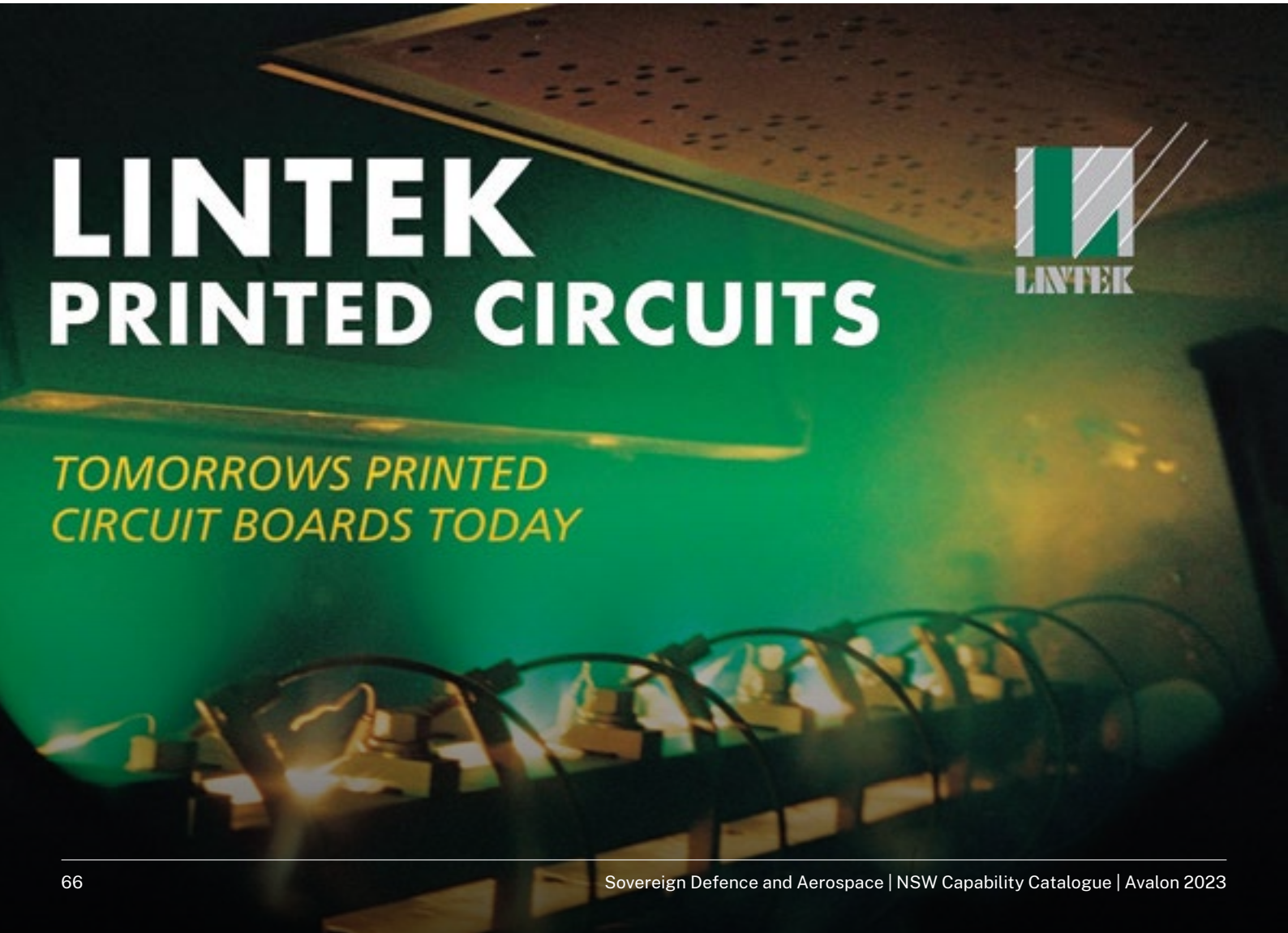
Jenkins Engineering Defence Systems

LINTEK PTY LTD

Based in Queanbeyan NSW, and established in 1986, Lintek is a local manufacturer of specialised Microwave and RF PCBs on exotic and conventional substrates. From humble beginnings Lintek has grown to be a key supplier to critical defence programs across the globe.

Where possible, Lintek is focused on developing and providing best in class products for sovereign defence programs. We are committed to our customers and aim to be a “value add proposition” in supply chain decisions.



Capabilities – products and services

- Manufacturing capability on a wide variety of different substrates including FR4/ PTFE/ceramic
- Metal-backed PCB – CNC machined metal carrier plates, with bonded PTFE circuits
- Laser drilling/machining capabilities – micro via, accurate profiling
- Paste filled and copper capped vias (used for HDI circuit board production)
- Track width and spaces: standard 0.2mm, special 0.05mm to 0.15mm
- Tolerances on track widths: +/- 0.008mm
- Electroplating services including; copper, nickel, silver, and gold (hard and soft gold available)
- ISO 9001:2015 + AS9100D + DISP certified
- IPC-A-600 Trainer and all Inspectors IPC-A-600 Certified

Key discriminators

- Lintek uses a patented sputtering process to manufacture extremely accurate surface features required for devices operating at or above millimetre wave frequencies.
- Our process has distinct advantages over conventional PCB manufacturing processes:
  - Copper features have vertical side walls with minimal undercut under nickel/gold
  - Track and hole barrels have same plated copper thickness - increased reliability
  - High bond strength to PTFE and minimal side wall undercut
  - Copper edge plating on all substrates
  - Environmentally friendly (low chemical/ water use).

Key customers and partners

- CEA Technologies – Phased Array Radar
- L3 Micreo – (USAF Combat Electronic Warfare (EW) Systems)
- Thales – various programs
- BAE systems – various programs
- BOEING Defence Australia
- Lockhead Martin – JSF
- DSTG
- DoD
- Cubic Mission and Defence systems
- Tait Electronics

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MICROTAU

MicroTau is an advanced materials and manufacturing business that solves human problems with nature's surfaces. We specialise in the design, development, and manufacture of tailored microstructured surfaces to optimise aero and hydrodynamic efficiency for aircraft and maritime platforms. These advanced surface coatings enable strengthened mission capability including ISR, long-range search and rescue, and heavy airlift capabilities. Our patented Direct Contactless Microfabrication (DCM) technology prints functional microscopic surfaces quickly, reliably, at low cost and at scale.
Key customers and partners include Boeing, Lockheed Martin, the US Air Force Research Laboratory (AFRL), and the US Office of Naval Research.

Capabilities – products and services

- MicroTau manufactures functionalised surfaces with drag-reducing capability enabling fuel use reduction of up to 5% per aircraft
- Highly scalable manufacturing capability for large production volumes
- In-house coating formulation and materials testing facilities
- Fuel savings up to 5% enabling savings of millions of dollars per aircraft over its lifetime
- Increases in range, endurance, speed, time-on-station and payload
- Team of materials, aerodynamics, and advanced manufacturing specialists
- Positive sustainability impact through reduced carbon emissions and improved fuel efficiency

Key discriminators

- Sovereign capability for manufacture of drag-reducing 'riblet' microstructures
  - Patents AU2020282386A1/ AU2016340034A1
- Able to print complex designs for double the fuel savings versus competitors
- Rapid prototyping ability for testing on new aircraft
- Able to fabricate out of existing and custom coatings and adhere directly onto bare and painted aluminium, stainless steel and others
- Globally unique, Australian owned and invented manufacturing technology

Key customers and partners

- Boeing
- Boeing Research and Technology
- Lockheed Martin
- PPG
- Defence Science and Technology Group (DSTG) – Specialised Coatings and Corrosion division
- US Air Force Research Laboratory
- US Office of Naval Research
- Australian National Fabrication Facility
- University of Sydney
- University of Melbourne
- Queensland University of Technology

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MicroTau

MISSION SYSTEMS PTY LTD

Founded in Australia in 2017 by Sydney University Alumni, Dr David Battle and Dr David Johnson, with over 40 years combined experience in defence R&D, Mission Systems is a rapidly growing, DISP-accredited robotics company, focusing on IP generation and commercialisation in the fields of autonomy, sensing and perception in the air, sea and land domains.

Capabilities – products and services

- tinySAR – low SWaP-C detect-and-avoid and ground-imaging radar for uncrewed air systems
- Previsional.AI – Autonomous onboard active perception for human-machine teaming
- S4 – GPU-accelerated active sensor data synthesis for target detection in all-weather and cluttered environments
- Bespoke hardware and software development providing capability and effects at greatly reduced cost and risk to personnel
- State-of-the-art capability in real-time underwater acoustic sensor modelling

Key discriminators

- A deep understanding of sensor physics applied from simulation model through to end-product
- Application of state-of-the-art software algorithms and techniques through collaboration with local and international academic and industry partners
- Innovative use of COTS components and novel methods to save power and cost
- Demonstrated experience in understanding and solving real-world problems across a range of industries and domains

Key customers and partners

- Australian Army (RICO) – LAND135
- Royal Australian Navy – SEA1000
- Defence Innovation Hub
- Trusted Autonomous Systems Defence – CRC
- Thales
- AMSL Aero
- NVIDIA (Inception)
- EPIC Games (MegaGrant recipient)
- Solutions from Silicon
- Syndetic
- Altum RF
- University of Technology Sydney
- University of Sydney

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NANO DIMENSION

Nano Dimension (Nasdaq: NNDM) is a manufacturer and provider of intelligent additive manufacturing solutions for high-performance electrical and mechanical applications on demand. With the vision of transforming the electronics and additive manufacturing sectors through the development and delivery of environmentally friendly, economically efficient Industry 4.0 solutions.

Capabilities – products and services

Additive Manufacturing Solutions:

- DragonFly IV – Multi-layer 3D printer for electronics
- Fabrica 2.0 – High precision 1 micron polymer 3D printer
- Admatec – Multi-material ceramics and metals 3D printer

Essemtec – Smart, Highly flexible SMT Solutions:

- Jet printing, glue jetting and assembly
- High-performance electrical devices, sensors, antennas, and passive components
- Low-cost, micro injection molding
- High-precision metal investment casting
- Modular pick and place solutions

Key discriminators

- On-site, sovereign, manufacturing capabilities
- Agile Hardware development, drastically reducing time to market
- IP Protection – secure in-house manufacturing for prototypes and production parts
- Open platform – adjustable parameters, on-demand adaptation of customer's ceramic and metal materials
- Environmentally sustainable – 99% less waste, 82% less chemicals compared to traditional PCB manufacturing
- Complex 3D electro-mechanical structures design capabilities
- Global collaborative community for innovators
- Deep learning AI based platform

Key customers and partners

Local client base

- University of Technology Sydney
- AVI Pty Ltd – Communications solutions
- DSTG

Global cross-industry client base

- TTM Technologies
- Safran
- Stryker
- L3 Harris
- Accumold
- Hensoldt
- Italy institute of Technology
- US Airforce Research Lab

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NANODIMENSION

NUPRESS GROUP

Nupress, established in 1971, is a manufacturer of precision machined components and assemblies. The business employs 50 staff including capabilities in structural and mechanical engineering, drafting, machining and logistics.

Our services include: precision machining, metrology, assembly, fabrication, supply chain management and project management.

Our AS9100 and ISO9001 accredited Quality Management System, world class facility and “First Class” approach make us an industry leader in manufacturing.

Capabilities – products and services

- High tolerance precision machining
- 5 axis simultaneous machining 1500mm x 400mm, trunnion style and millturn
- Done in one multitasking – dual spindle parts transfer
- Co-ordinate measuring, contour measuring and thread verification
- High speed wire cutting – 600mm x 400mm x 310mm
- 3D Printing – Spee3D Warp Speed printer

1. Milling – up to 1400mm x 1200mm x 1325mm
   - High torque and high speed horizontal Machining
   - Vertical machining
2. Turning
   - all sizes up to 600mm diameter and 3000mm in length
   - Automated processes

Key discriminators

- "First class" quality processes
- AS9100 accreditation and ISO9001
- AS9102 FAIR – First Article Inspection Reporting
- Production Failure Mode and Effects Analysis (PFMEA) Measurement Systems Analysis (MSA), Statistical Process Control (SPC)
- Controlled environment machining
- Mature management systems
- Tailored customer solutions
- Internal audit function
- NIST 800-171 compliant and mature cybersecurity systems
- 24/7 ITAR facility and controlled data systems
- 20 years of export experience to North America, Asia Pacific and Europe

Key customers and partners

- Pratt & Whitney F35 Global Supply Chain
- Varley F35 Ground Support Equipment
- Department of Defence – F35/F18 Sustainment
- Rheinmetall Land 400 – Boxer CRV
- Airframe Structures – Ghostbat (Loyal Wingman), Wedgetail, Chinook
- Ferra – Landing Gear Components
- F35 Braised Chassis & Cold Wall Plates
- EOS – R150
- Magnix – Electric Propulsion Units
- Thales
- Boeing Defence Australia
- SiNAB

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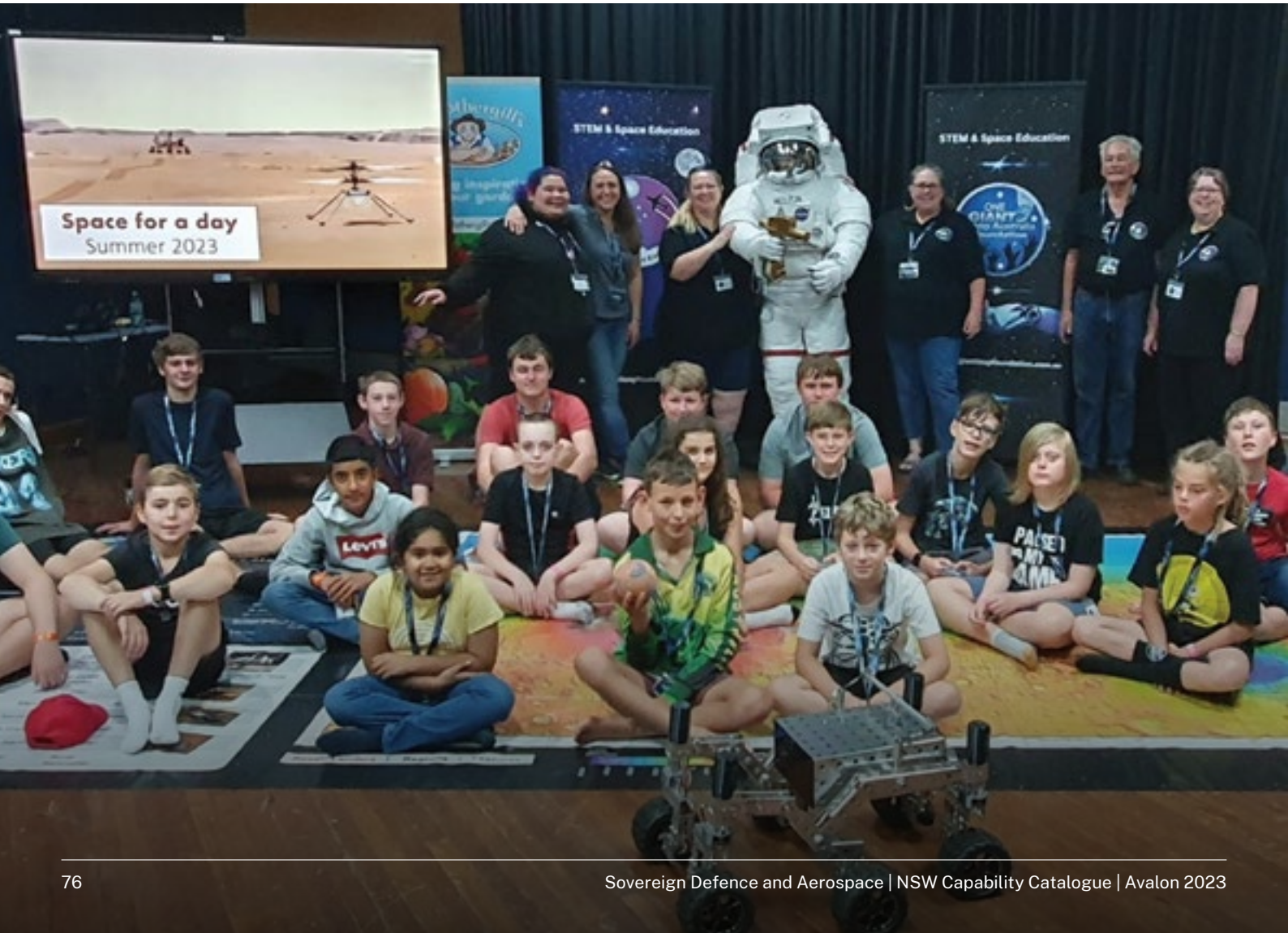
NUPRESS GROUP
FIRST CLASS MANUFACTURING

ONE GIANT LEAP AUSTRALIA FOUNDATION

One Giant Leap Australia (OGL) realises for Australia to reach its full potential in science, technology, engineering and mathematics (STEM), we need to ensure we are developing a future workforce equipped with diverse and dynamic skill sets to meet the needs of employers in these developing and innovative industries.



Services

Innovative bespoke global STEM educational programs such as:

- Seeds in Space
- The Connecting Minds Project
- The Gadget Girlz
- One Giant Leap Radio
- KIBO Robot Programming Challenge
- Plants for Space
- Space For A Day
- Aerospace Academy
- Aerospace Camp
- National and International Outreach Workshops
- Conference Keynote Presentations

Key partners and upcoming events

Since 2008, OGL has forged strong working relationships and partnerships with a range of educational institutions and providers; local, state, and national government agencies; STEM-based companies; aeronautical and astronomical researchers and scientists and other community-based organisations.

- Aerospace Academy in 12 locations across NSW from April 2023 to January 2024
- STEM Careers Expo in 12 locations across NSW from April 2023 to January 2024
- Aerospace Camp in 8 locations in NSW 2023 and 2024
- USA Space Tour November 2023

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OPTUS

Optus is Australia's largest and most experienced satellite owner and operator, with seven satellites currently in orbit, providing satellite services across Australia and New Zealand and to the United States Antarctic Program in McMurdo Sound. Optus is Australia's 2nd largest telecommunications company, providing national critical infrastructure across mobile networks, fixed networks and geostationary satellites servicing over 10 million customers every day.

For more than 35 years Optus has been Australia's pre-eminent satellite provider, launching 10 satellites, operating 13 spacecraft, and providing support to over 100 international space programs. Since 2003, Optus has flown the C1 Satellite – which provides critical mission capabilities for Australian Defence Force operations and at the time of launch, was the world's largest defence-civilian spacecraft. Currently, Optus is planning to launch its 11th spacecraft and the Asia-Pacific's first software-defined Ku-band satellite, named OPTUS 11. Optus will be the first satellite operator in Asia Pacific to launch a software-defined satellite that can provide both flexible concurrent broadcast and broadband services via a very high throughput satellite design.

Capabilities – products and services

- GEO Spacecraft Hosted Payloads
- Defence space solutions in the Asia Pacific – Optus can manage your launch program over APAC
- Unique and bespoke spacecraft program procurement, management and operations
- Professional services – including space training and software development
- Launch Support (>100 completed) media and content delivery
- Data and IP over Australasia Pacific, including IFC and SatBackhaul

Key discriminators

- Australian based and managed
- Sovereign satellite operations and DEFSECOPS
- Trusted and proven successful Defence partner
- Proven heritage launching and operating satellites for 35+ years
- Large telco with a space network: 7000+ employees in Australia
- Leading Australian cybersecurity operations centre that protects national critical infrastructure
- Invested >$20B in Australian infrastructure by Australians, for Australians

Key customers and partners

- Defence
- Border Force and Department of Foreign Affairs and Trade
- Foxtel and PayTV operators
- Free to Air (FTA) operators such as Australian Broadcasting Corporation (ABC) and SBS
- Emergency services
- In-flight connectivity providers
- System integrator partners

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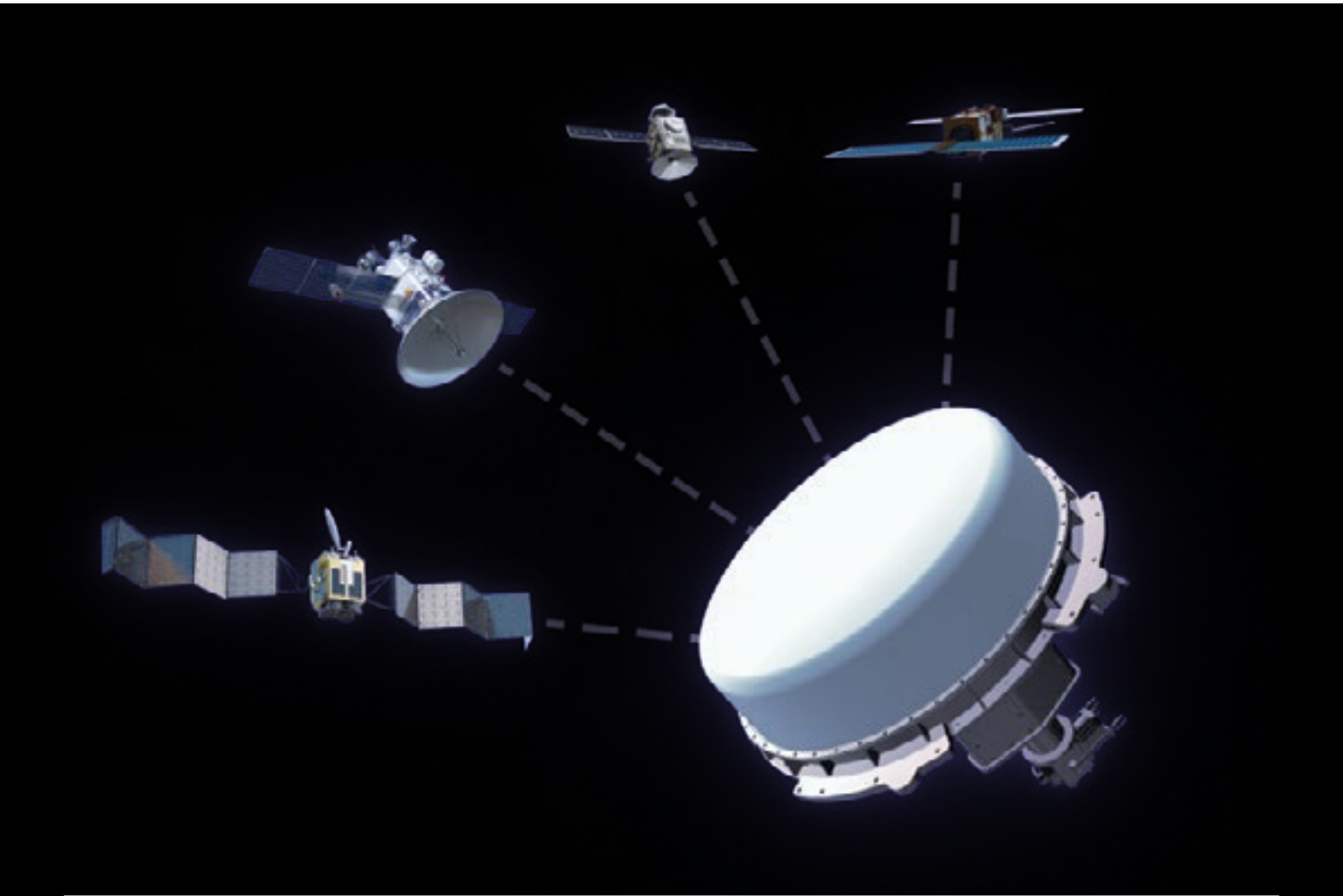
OPTUS

QUASAR SATELLITE TECHNOLOGIES

Quasar Satellite Technologies (Quasar) was founded in 2021 with a mission to provide world-leading ground station service solutions for Space Communications and Space Domain Awareness (SDA). Quasar secured a $4.8M Defence contract to further develop its true multibeam (10+ beams) phased array ground station system and SDA solution. Quasar's technology was developed by CSIRO's pioneering radio-astronomy division that has been developed over decades and proven in the field. Quasar's solution is dual-use technology.



Capabilities – products and services

- Strategic and tactical capability for multi-mission ground station services and SDA
- Highly scalable (10+ beams) with a small footprint
- S and X band capable
- Multi orbit scalable – LEO and beyond
- Simultaneous all-sky field-of-view
- Intelligence, Surveillance and Electronic Warfare ready (ISREW)
- Supports fully secure, reliable data communications and delivery
- Capability to track sub-orbital objects
- Supports spoofing interference and localisation analysis

Key discriminators

- Quasar has a unique and multi-patented world-first, true multibeam digital phased array technology
- Fully software defined, low latency, high throughput built on Software Defined Radio (SDR) and Software Defined Networking (SDN) technologies
- Flexible, standards-based open architecture
- Software scalable
- Integration through standard protocols and APIs with an intuitive pass booking portal
- Uniquely characterises objects with full-sky visibility
- Reconfigurable beams, low maintenance and instantaneous slewing

Key customers and partners

- CSIRO
- NSW Government
- Clearbox Systems
- Fleet Space
- Vocus
- Saber Astronautics
- Australian Defence – Defence Innovation Hub

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QUASAR SAT

RINGIR

Cavity Ringdown spectrometry is RingIR Pty Ltd's core technology. It offers real-time multi-hazard sensors that can detect any gas, vapour or aerosol of interest, down to parts per billion, within seconds.

Our mission is to deliver deployable technology that bolsters situational awareness, empowering our users (both human and autonomous systems) with the intel required to make strategic decisions with confidence.

RingIR has successfully completed an Australian Defence DIRF contract and is now in the final stages of delivering a Phase 4 Defence Innovation Hub Innovation Contract.

Capabilities – products and services

- Real-time chemical molecular fingerprinting
- Improved safety of operators against threats
- Unrivalled CBRN situational awareness
- Easy-to-use hand-held technology
- Ability to operate and manoeuvre in a CBRN environment
- Zone management allowing for decreased posture

Key discriminators

- Real-time identification and quantification with expansive chemical libraries
- Additional information easily available for specialist users reducing need for reach back
- World leading real-time aerosol detection and identification
- No need for adaptors or consumables
- No need for training or specialist knowledge
- Easy to interpret results for non-specialist users, with actionable critical information provided
- Chemical library easily updated with new threats

Key customers and partners

- AHQ (development of portable multi-hazard detector)
- STaRShot – operating in CBRNE environments
- IARPA – Supporting US-based entities on PICARD aerosol detection program
- DSTG (providing requirement set for technology development)
- DAFF – Biosecurity Innovation Program (Fumigant Detection Program and Hitchhiker Pest Program)
- Home Affairs/Australian Border Force – Mass Pallet Screening

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ROMAR ENGINEERING

Romar Engineering is an industry leader with more than 50 years of experience in manufacturing. From our origins developing tool and dye moulds, we've consistently embraced R&D and adapted to global market forces.

In recent years we have adapted our expertise to applications involving 3D metal additive manufacturing and Fluid and Motion Controls for the aerospace and defence sectors.

Romar is a recipient of a $5.85M MMI-Space Grant from AusIndustry which is assisting us to build out our Fluid and Motion Control business, of which Gilmour Space Technologies is a foundation customer.

Romar also works with companies such as Thales and Airbus.

Capabilities – products and services

R&D is a key element of our core competencies and we have invested significantly in state-of -the-art and niche additive manufacturing technology, software and facilities. Our team has the depth of experience and intelligence to extract maximum performance and value from our technology. With a materials science focus, we understand the science behind the technology and the way materials react in different manufacturing environments.

At Romar we cover:

- Aerospace
- Defence
- Medical
- Mining
- Rail

Key discriminators

Romar has a culture of innovation and enthusiasm from and exceptional team of additive engineers, manufacturing engineers and materials scientists.

Romar has invested heavily in:

- SOFTWARE – such as Fusion 360 PLM/ CAD/CAM, Netfabb, Seimans NX, nTopology, ABAQUS, X FLOW and ProShop ERP
- MANUFACTURING – Lasertec 65 3D, GE Additive Concept Laser M2 Series 5, Renishaw AM400, DMG Mori NLX 2500/700 twin spindle lathe, 3 Axis and 5 Axis milling, SLA and FDM plastic printing and Leitz CMM
- TESTING – Shimadzu AGX-V 1kn and 50kn capacities, valve test – cryogenic pressure performance, life cycle, testing up to 20mpi, electromechanical testing

Key customers and partners

Apart from Thales, Airbus and Gilmour Space Technologies, Romar also works with companies such as:

- Hypersonix Launch Systems
- Valiant Space
- QinetiQ Pty Ltd
- Space Machines

Romar also has a strong working collaboration with:

- ANSTO
- RMIT/Swinburne
- Sydney Manufacturing Hub (University of Sydney)
- Western Parkland City Authority
- CSIRO Lab 22

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ROMAR
Scalable Manufacturing Solutions

SEVAAN GROUP PTY LTD

Established 1997, Sevaan Group is a trusted Design and Contract Manufacturing partner to major Australian OEM customers requiring sheet metal components and precision machined parts in a broad range of materials, produced to exacting standards with rapid turnaround.

Capabilities – products and services

We are experts in the Design and Production of metal parts and Assemblies utilising CAD/CAM manufacturing processes including laser cutting, bending, punching, forming, folding, welding, precision machining, surface treatment, finishing and final assembly.

Key discriminators

- Integrated Manufacturing Services capability including sheet metal fabrication, precision machining , finishing and Assembly – reducing client lead times – reducing supply chain/suppliers – transaction costs , project risk and overall supply cost
- Latest technology production equipment with automation providing manufacturing flexibility for low volume production and prototyping or higher volume serial production requirements
- Custom Part design for optimization – reducing acquisition and operating costs
- 'Sevaan Academy' developing People for tomorrow, ... building expertise

Key customers and partners

- W&E Platt
- Marathon Targets
- Mitsubishi Australia
- Tyree
- Actron Air
- GPC Electronics
- CIC Technologies
- Johnson Controls (Tyco)

Australian OEM Customers and Product Design houses

- Defence sub contractors, electronics, mining, rail infrastructure and rolling stock, transformers and power transmission, transport, agriculture, air conditioning, architectural constructors, gaming and height safety

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SEVAAN GROUP
Every part of the process

SILVERTONE – AUSTRALIAN UAV TECHNOLOGIES PTY LTD

Australian UAV Technologies has been designing and manufacturing fixed-wing runway and VTOL aircraft for a decade, providing aircraft for ISR and communications missions in the civilian and military sector in Australia and overseas. We have provided capability to Royal Australian Navy via the Five-Eyes exercises Autonomous Warrior 18 and 22, successfully integrating STANAG-compliant systems on-board.

Capabilities – products and services

- Hardware and software development
- Bespoke solutions
- Autopilot development
- Avionics integration
- Rapid prototyping
- Aerospace and avionics design
- Data processing and AI image analysis
- SIGINT supply and support
- Approved Defence and INTEL community supplier

Key discriminators

- 100% Australian owned and operated
- Cost effective
- Agile and adaptable
- Rapid response
- Accessible
- Ground and Flight Test Range (BVLOS) availability
- Proven ability to rapidly develop novel solutions for aviation, communication and AI problems

Key customers and partners

- Department of Defence (Aus)
- UAVE Ltd (UK)
- Currawong Engineering
- AVT Australia
- Ballout Group (Sweden)
- EDP (Brazil)
- Ctr3SM (Brazil)
- Mondo
- CASA
- ANAC

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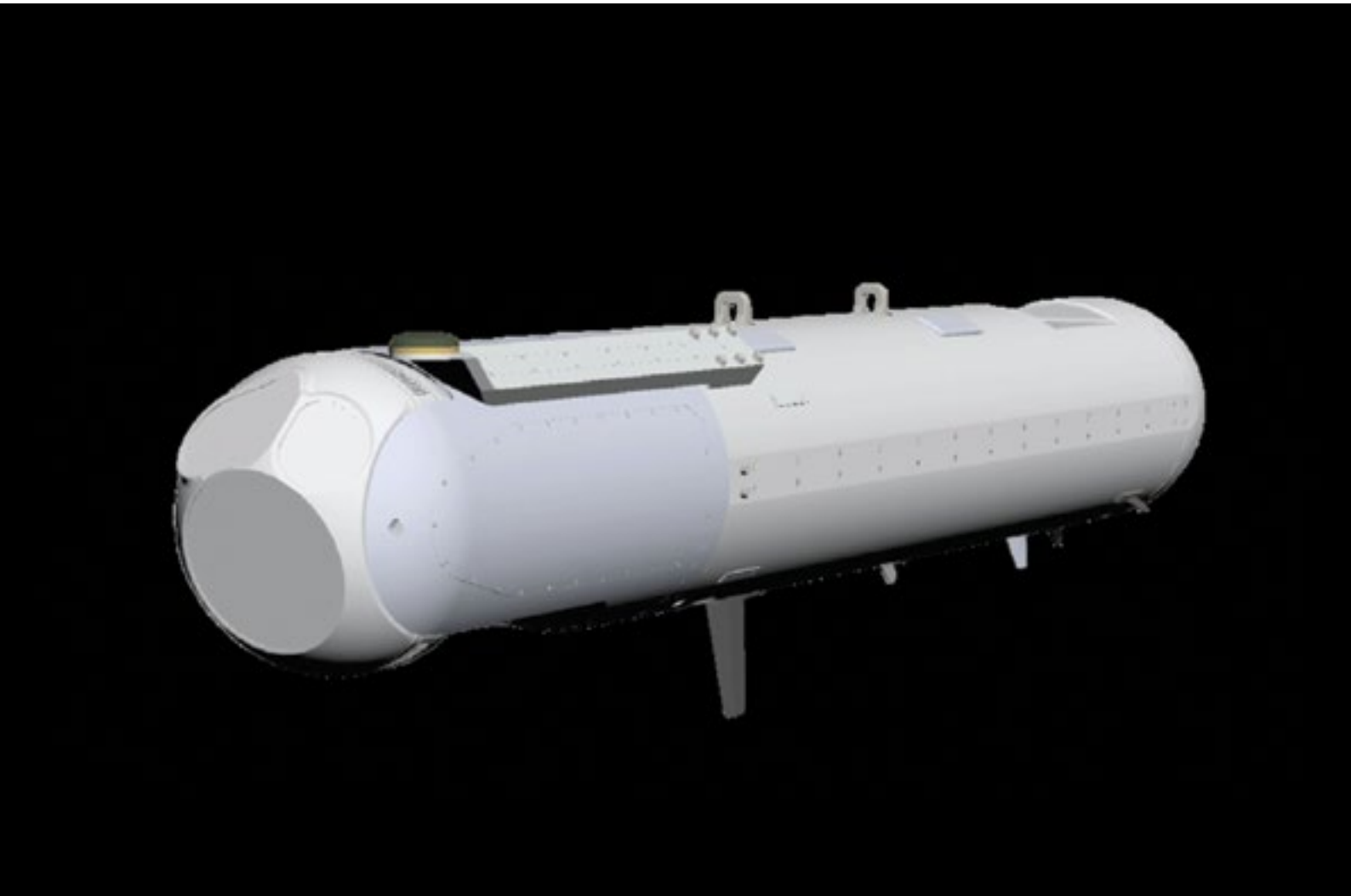
SINAB PTY LTD

SiNAB is a wholly Australian-owned and operated SME, meeting real-world defence and aerospace challenges, turning contemporary and emerging technologies into deployable products and solutions. SiNAB has the vision, people, resources, and network of talented partners to span the full product life cycle.

SiNAB's team brings decades of engineering and management experience and a proven track record of delivering critical, high-visibility defence projects.



Capabilities – products and services

- Research and development
- Aerospace systems design and engineering
- Safety critical software engineering
- Computational Fluid Dynamics (CFD)
- Finite Element Analysis (FEA)
- Rapid prototyping and design
- Systems integration

Key discriminators

- 100% Australian owned
- Innovative defence and aerospace technologies
- Sovereign industrial capability
- Agile and commercially attuned
- Industry 4.0 capable
- Trusted subject matter experts

Key customers and partners

- Office of Defence Industry Support (ODIS)
- AuCloud
- Blue Air Training
- Defence Innovation Hub
- Nupress Group
- The University of Sydney
- Hood Technology
- Stauder Technologies

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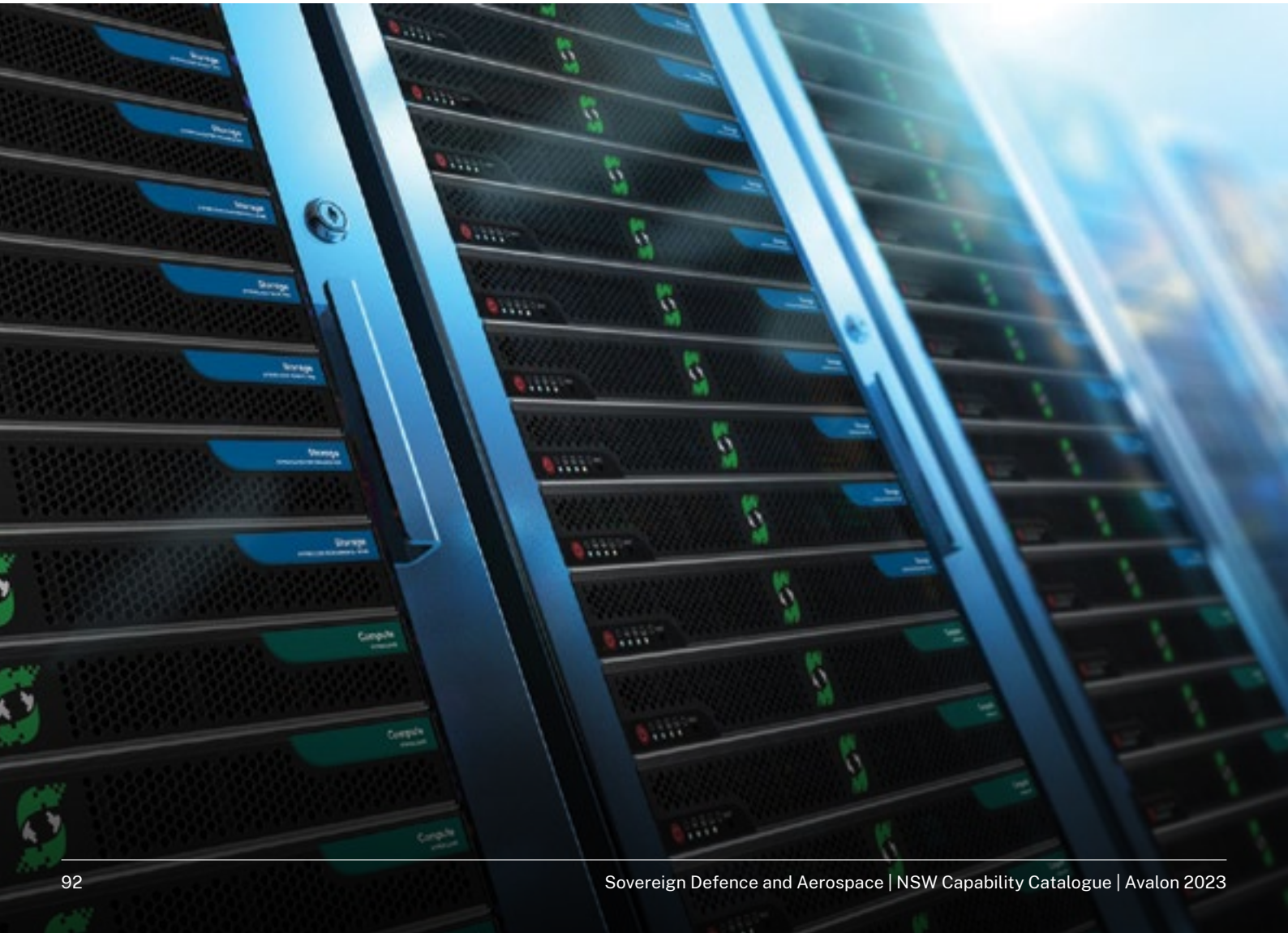
SiNAB

SOFTIRON

SoftIron makes the products that underpin the future of IT infrastructure. Our mission is to radically simplify the task of building and operating a sovereign, scalable and resilient cloud solution. We stand by the total integrity and complete security of our products, ensuring absolute peace of mind for national security-oriented customers and contractors. We are the leaders in purpose-built and performance-optimised private and hybrid cloud solutions. We design, assemble and manufacture HyperCloud, the world's first complete technology for building and running clouds. Our secure, scalable and simple-to-use technology is manufactured in Australia and the United States using transparent and verifiable materials and methods.

SoftIron's technology is trusted by the United States military, government and major Primes. With support from the Australian Department of Defence, we have built an advanced sovereign manufacturing facility in Sydney to enable a truly sovereign cloud capability for Australia with secure and resilient supply chains.



Capabilities – products and services

- HyperCloud is a singular and unified cloud technology platform delivering hyper-scale public cloud simplicity for sovereign, private and hybrid deployments
- HyperCloud is secure by design, not by remediation, across its hardware and software components with security controls architected into the bedrock of the technology
- HyperCloud is in operation at the highest security classification levels and is FIMSA High, FedRAMPHigh and DoD SRG IL-5 compliant
- HyperCloud is deployable in half a day and is designed to run in denied environments and at the tactical edge in as little as 8U
- Virtual Machines in HyperCloud are easily replicated within public clouds like AWS and Microsoft Azure, allowing for effectively infinite, real-time scalability
- HyperCloud is delivered with full access to all its capabilities "out of the box", with no additional licensing required to access any features, compute, or storage capacity

Key discriminators

- Secure by Design – because we design, manufacture and assemble all our own hardware and write our own software, we mitigate the risk of covert hardware and firmware implants, the vector of choice for malicious state actors
- Investing in Sovereign Capability – SoftIron is the only company building cloud hardware in Australia and other strategic AUKUS locations
- No vendor lock-in – HyperCloud enables users to own the cloud on their terms and turf without being beholden to public cloud providers
- Designed, not assembled – task-specific engineering delivers unrivalled power efficiency and scalable performance as well as significant cost and carbon reductions
- Reduced complexity – managing hardware is easy with HyperCloud, reducing the need for skilled IT employees and the amount of resources required to live with the cloud

Key customers and partners

- U.S. Air Force
- U.S. SOCOM
- Lockheed Martin
- National Computational Infrastructure (NCI)
- Baidam Solutions

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SOFTIRON®

SPACE RESEARCH NETWORK

The NSW Space Research Network stimulates and supports collaboration in research, development and training with a focus on translation into the space sector. Through substantive industry engagement, collaborative projects, workforce development and community outreach, the SRN drives transformational engagement to bring novel capabilities to the Australian and International space sectors.

Services

- Funding pace research projects up to $150K
- Mapping existing capability
- Development of space infrastructure
- Business matching and support for NSW and ACT based industry with research
- Workforce development
- Higher degree research internships
- Sponsored travel

Key partners

- University of Sydney
- University of New South Wales
- University of Wollongong
- University of Newcastle
- Macquarie University
- Australian National University
- Western Sydney University
- University of Technology Sydney
- Supported by NSW government

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NSW Space Research Network

AUSTRALIAN UAV SERVICE – SURF LIFE SAVING SERVICES PTY LTD

Winner of the 2022 Australian Aviation Awards, 'Remotely Piloted Aircraft Business of the year', The Australian UAV Service is the industry leading provider of search and rescue and water safety services to multiple external stakeholders.

We work closely with NSW Department of Primary Industries, NSW Police, Marine Area Command and SES NSW to provide situational awareness and live drone video feeds for timely decision making and intelligence gathering. AUAVS Manager and Chief Remote Pilot Paul Hardy serves as a board member of the Australian Association for Uncrewed Systems.

Capabilities – products and services

- Marine and land-based search and rescue
- Extended VLOS and night VLOS operational capabilities
- Intelligence gathering and surveillance
- Event safety and risk mitigation
- Beach assessment and mapping
- Aerial data collection and analysis
- Flexible UAV training
- RTK image collection and 3D orthomosaic mapping

Key discriminators

- Market leader and innovator in UAV search and rescue and event water safety
- 115 year history in marine search and rescue
- Working in multi-agency environments
- Hundreds of trained UAV operators and pilots
- 50 set locations and 30 mobile locations across NSW
- All hours rapid deployment for emergency services operations

Key customers and partners

- NSW Department of Primary Industries – beach user safety (including shark mitigation program) and long-range UAV project
- NSW State Emergency Service – flood intelligence and surveillance
- NSW Police, Marine Area Command – search and rescue
- World Surf League and Surfing NSW – water safety services

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AUSTRALIAN UAV SERVICE

THOMAS GLOBAL SYSTEMS PTY LTD

Thomas Global is an industry leader in the design, production and support of innovative electronic systems solutions for commercial aviation and defence applications. Since 1956, the company has gained international recognition for practical innovation and dependability. Thomas Global delivers expertise in advanced flight displays, armoured vehicle electronics and other mission-critical systems supported by dedicated service and support teams operating around the world. Thomas Global is also an industry leader in the design, production and support of innovative Simulation Technology.

Capabilities – products and services

Specialist in high integrity aviation and defence electronics

- Flight deck avionics
- Submarine and surface ship electronics
- Armoured vehicle electronics
- Training and simulation systems
- High integrity engineering services
- Maintenance repair and overhaul services
- Cross domain solutions

Key discriminators

- Australia's only manufacturer of high integrity aviation electronics and avionics
- Trusted Partner of the Australian Defence Force and United States Armed Forces
- 65+ year track record of practical innovation
- Established design and production facilities in Sydney, Australia and California, USA

Key customers and partners

Key Customers

- Australian Department of Defence
- RNZAF
- United States Armed Forces
- Thales, L3 Harris, Safran, Raytheon, Boeing, Leonardo DRS, Saab
- Delta, QANTAS, Lufthansa, JAL, Air New Zealand, DHL

Major Platforms

- Boeing 757/767/737
- Dash 8, ATR42/72, Saab 340
- CRJ Series
- F/A-18
- M1 Abrams, M2 Bradley, Hawkei, Boxer CRV
- Collins Submarine, Anzac Frigates

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Thomas Global Systems

UNSW DEFENCE RESEARCH NETWORK

University of New South Wales (UNSW) Defence Research Institute was established to stimulate, unify, and support all defence-related research within the UNSW community, while striving to build and maintain a network across both Australian and International defence industries.

We operate at the frontiers of science and technology to help deliver transformational innovations that advance Australia's global capabilities, redefine the modern defence landscape, and change the world for the better.

Key research interests and priority technologies

- Artificial Intelligence
- Autonomous systems
- Communications and Digital
- Cyber
- Human performance, protection and behaviours
- Hypersonics
- Materials and Manufacturing
- Microelectronics
- Quantum
- Power generation and control
- Sensors
- Signal processing and data fusion
- Space

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UNSW | Defence Research Institute

VARLEY PTY LTD

Varley was established in 1996 and is one of Australia's oldest and most advanced engineering companies. The company's current customer base is wide-ranging from individuals to governments and global corporations.

Varley has over 35 years of experience in defence and aerospace, working in major Defence acquisition programs, requiring design, manufacture and sustainment of mobile land-based systems, deployable infrastructure and aircraft ground support equipment. Current projects include deployable shelters including integration of critical mission systems and logistics support equipment, vehicles and trailers and aircraft maintenance docking stations, mobile work stands and lifting, handling and test equipment.

Capabilities – products and services

- Project management
- Systems engineering and integration
- Prototype development
- Light, medium and heavy metal fabrication
- Precision machining and sheet-metal routing, cutting and folding
- Vehicle body building and fit-out
- Abrasive blasting and painting
- Integrated logistic support
- Verification and validation
- Maintenance, repair, overhaul and upgrade

Key discriminators

- Supplier of world class innovative turnkey solutions
- Long established and financially viable
- Solid past performance delivering high quality workmanship
- Highly skilled, experienced and diverse workforce
- Advanced engineering, manufacturing and management practices
- Extensive export experience – ITAR

Key customers and partners

- Lockheed Martin – DDMS Secure Facilities, TADRS processing cabins and F-35 aircraft ground support equipment
- Defence – AIR90 mode 5 deployable IFF upgrade test capability
- Lendlease – AIR7000-2B P-8 aircraft docking stations
- Northrop Grumman KC-30A MRTT aircraft docking station
- Raytheon – ESSM Blk2 containers and L19-7 EO/IR modules
- Boeing – LAND 2072-2B BCS deployable data centre modules
- Rohde & Schwarz – TAOT trailers
- Rheinmetall LAND 121-3B/5B MHC vehicle modules
- Mercedes-Benz LAND 121-3A/5A LCC vehicle modules

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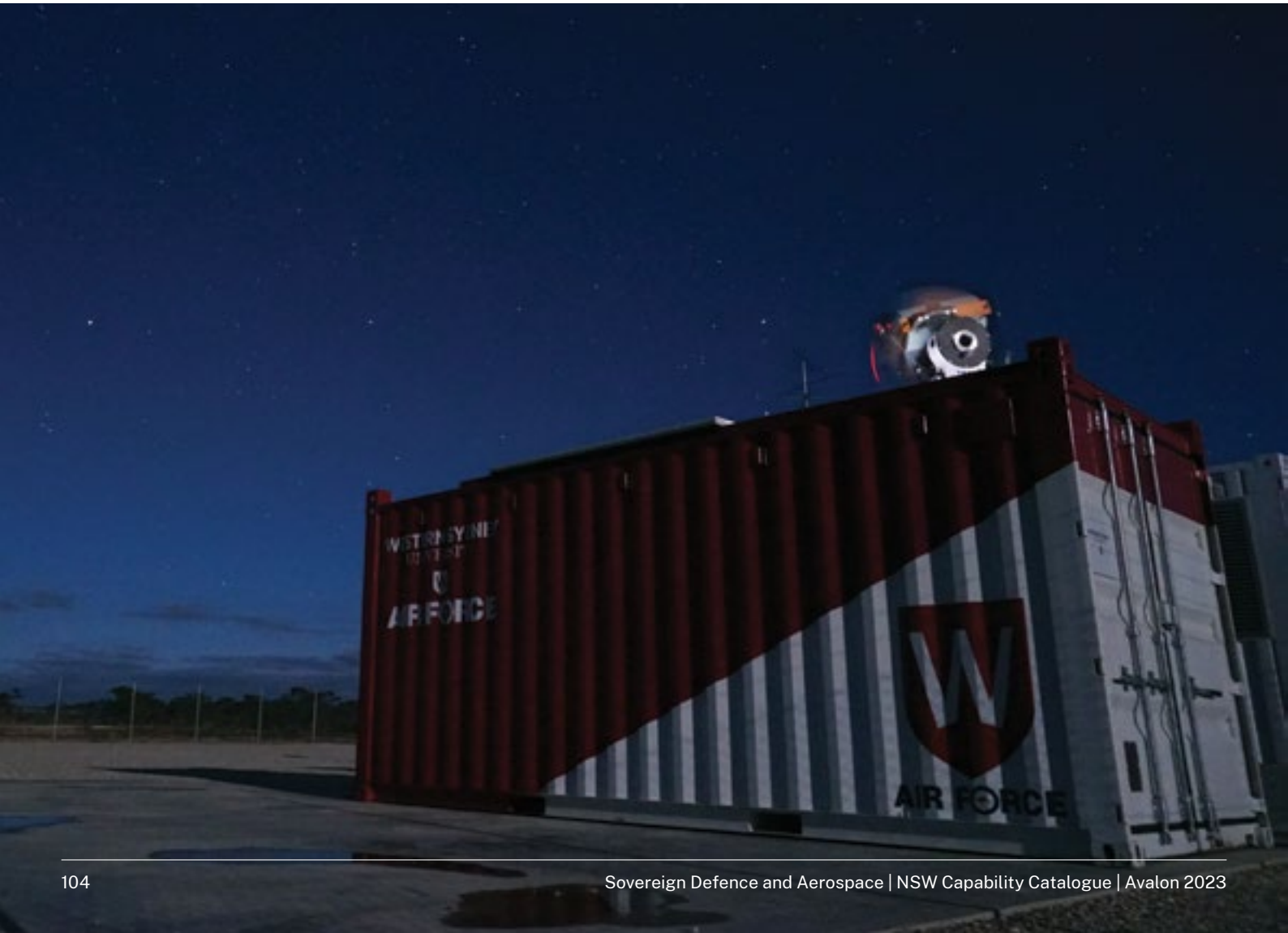
WESTERN SYDNEY UNIVERSITY, INTERNATIONAL CENTRE FOR NEUROMORPHIC SYSTEMS (ICNS)

ICNS is a world leader in the development of Neuromorphic Perception Solutions. Inspired by biology, these ground-breaking solutions harness the power of the centre's pioneering research on neuromorphic sensors, algorithms and processing hardware, to solve problems currently impeding technological innovation.

The Neuromorphic Engineering approach is sustainable and reliable, using low-power and high-speed systems at the edge to provide a solution to the data deluge problem currently limiting existing technology.



Key research interests and priority technologies

- Silicon Retina – Eeent based vision systems
- Electronic cochlear – high resolution auditory localisation and discrimination
- Sensor fusion and edge processing AI/ML
- High speed location, tracking and characterisation of objects in the atmosphere and space
- Space domain awareness
- UAV situational perception underwater
- Earth observation with US AFRL – space heritage

Key partners and key programs

- Thales Australia and International – space
- BAE Systems – atmospheric object detection
- Raytheon – UAV navigation
- JP9360
- JP9102

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