



Department of
Jobs, Tourism, Science
and Innovation



WA defence capability

AVALON 2023



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Failure to deliver effective safety training has never been an option. Immersive theatre based training is now in Australia.

ACT delivers extraordinary engagement and immersion for your Safety Leadership Conferences, Symposiums, Safety, and Risk Training.

Comprehensive case studies, many already used in Defence, are brought to life by professional actors in dynamic workshops and filmed productions delivering analysis and change.



CAPABILITIES

- ACT delivers safety training nationally. Dramatic scenarios for key workforce development through theatre and film production, impacts your audience.
- The lessons learned inspire positive action and create safer working environments.
- *Nothing Bad, Nimrod, Space Shuttle, Deepwater Horizon, Fukushima, and Piper Alpha* are case studies available for delivery through professional productions for your conference, leadership group, and workforce safety and risk training.
- 65 current productions, Bespoke safety, and risk scenario development, national capability.

DISCRIMINATORS

- Nominated for Australian Cyber Security Awards 2023 for Air Domain commission *Nothing Bad*
- "I've never heard such animated conversations on cyber. Really brought home some real life recognition of situations where we could improve our behaviours."
Amy Beck, GPCAPT, Officer Commanding, Airborne Surveillance Control and Intelligence Systems Program Office (ASCISPO)
- Winner Australasian Rail Industry Safety Award 2020
- ACT has been a leader in education innovation for 10 years. AKT UK 25 years. International recognition through commissions from Ministry of Defence.
- Repeat business for Defence clients including GWEO PARARI SYMPOSIUM
- WHS BRANCH, AIR DOMAIN CASG
- Bespoke productions customised for Defence Industry including Babcock NSM 2021, 2022



Website: www.actaustralia.net.au

Email: info@actaustralia.net.au

Mobile: 0458 881 434



Our exclusive licence with AKT Productions (UK) gives us access to a portfolio of proven and reputable theatre-based works for the Ministry Of Defence (UK) that provide global best-practice. www.aktproductions.co.uk



Woodside



RioTinto

Wesfarmers



Australian Government
Department of Defence



From the producers of 'Space Shuttle' presented at PARARI comes **'Nothing Bad'**
A theatre based safety training and cyber-security workshop commissioned by Air Domain Williamtown



The 'Space Shuttle' Workshop



A sidewinder missile ignites and fails to disengage from the F35 on a live firing exercise, burning through part of the wing. The pilot is forced to eject and the aircraft is destroyed. With no obvious mechanical reason for it to misfire, the new launch integration software is examined and malware is suspected.

Nothing Bad explores the cyber-risks that were exploited by sophisticated criminals accessing the personal details of contractors, consultants and Defence personnel. Through seemingly minimal transgressions – “I did nothing bad” – the story skilfully displays the significant impact on the organisations affected, international reputations; and the personal impact.

"I've never heard such animated conversations on cyber. Really brought home some real life recognition of situations where we could improve our behaviours."

Amy Beck

GPCAPT

Officer Commanding

Airborne Surveillance Control and Intelligence Systems Program Office (ASCISPO)

"Very well performed. Comments from audiences at both sessions were convinced the actors were real Military Police. The engagement has prompted many conversations about cyber security since, included everyone introspectively assessing themselves."

Participant, Air Force

KEY THEMES

Risk
 Safety Culture
 Leadership
 Cyber security
 Cyber resilience



Airflite Defence Services has enjoyed a long association with the Commonwealth of Australia in support of Defence capability, resulting in a mature organisation that is highly experienced in meeting the needs of Australian and international Defence programs.

Many individuals in Airflite have strong Defence backgrounds, including significant experience in both rotary and fixed wing aircraft maintenance.

Airflite's current aviation maintenance programs operate under DASR Part 145.

Defence Contacts:

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General Manager
E: kris@airflite.com.au | M: 0408 949 604

Stephen Murphy
Defence Program Manager / Business Manager – East Coast
E: smurphy@airflite.com.au | M: 0429 031 815



airflite.com.au

QUAD CHART

DISCRIMINATORS

- ✓ Part 145 DASA Approved
- ✓ A Defence Partner Since 1991
- ✓ Commonwealth Performance Exchange Results
- ✓ SAI Global ISO 9001:2015 QMS
- ✓ Registered Training Organisation
RTO Code 52904
- ✓ Aviation Experts for Four Decades

CAPABILITIES

- ① Line Maintenance
- ① Deeper Maintenance
- ① Component Repair and Overhaul
- ① Egress Systems
- ① Life Support Equipment Maintenance, Non-Destructive Testing
- ① Painting
- ① Calibration

KEY OEM PARTNERS

ROGERSON
KRATOS

KODIAK

CONTINENTAL
AEROSPACE TECHNOLOGIES

LYCOMING

Parker | Lord

TEMPEST AERO
GROUP

KEY CONTRACTS

Contract Title: RAAF PC-9/A Fleet Maintenance & Logistics Support
Scope of Contract: Maintenance and logistics support

Contract Title: Basic Flight Training Support Contract
Scope of Contract: Aircraft Operational Maintenance and Flightline Service

Contract Title: Cadet Branch Powered Aircraft Capability
Scope of Contract: Supply, Maintenance and Engineering support

Contract Title: Lead in Fighter – In Service Support Contract (Repairable Items)
Scope of Contract: Off aircraft Maintenance and Support

“Airflite is an ideal partner to Defence”

October 2019 Performance Exchange

COMPANY / CAPABILITY OVERVIEW

VALUE PROPOSITION

- We make maintenance on your operation safe, efficient and easy

- Design, engineering and fabrication
- On-site consulting and 3D scanning to enable intelligent design
- Access platforms and scaffold elimination
- Work stands
- Equipment and material storage and handling solutions
- Workbenches and tool storage
- Site maintenance and upgrades
- Container fit-outs

CAPABILITY

- Design
- Engineering
- Fabrication and manufacturing

Contact

Andrew Fawkes

08 9459 8600

andrew@bendtechgroup.com.au

2-10 Kewdale Road, Welshpool, WA, 6106

COMPETITIVE DISCRIMINATORS

- In-house design, engineering team with over 15 internal team members
- 3D scanning, scoping and processing capabilities
- 9000 square metres of fabrication facilities
- 80 tonne lifting capability, 20 metre underhook lift
- Our Australia-wide consultation team and processes with over 10 team members
- Dedicated research and development department and 3D printing capabilities

CERTIFICATIONS / ACCREDITATIONS

- ISO9001:2015
- LEAN
- Design, engineer and manufacture in accordance with Australian Standards

PARTNERS & CUSTOMERS

Mining and Energy

- BHP
- Rio Tinto
- Fortescue Metals Group
- Chevron
- Woodside
- Inpex

Defence

- BAE Systems
- Rheinmetall
- Babcock
- Australian Government Department of Defence
- Austal Ships
- Raytheon



**Blacktree Technology
Pty Ltd**

**A: Unit 4, 8 Fisher Street,
Belmont, WA 6104
Australia**

P: +61 8 6245 2120

E: admin@blacktree.com.au

CAPABILITIES

*System solutions from the
"back of the radio to the tip of the antenna".*

Blacktree specialises in mission-critical communication solutions in urban, remote and harsh operating environments, drawing on our knowledge of technologies including:

- **Narrow-Band and Wide Band Satcom** – UHF, L , C, X, Ku, Ka bands; Satcom-On-The-Move (SOTM); Satcom-On-The Pause (SOTP)
- **Terrestrial Communications** – Commercial HF, VHF, UHF systems; licensed and public spectrum microwave; DSL, fibre, broadband radio and LTE systems
- **RF Components Manufacturing** – UHF helical antennas, redeployable Bifilar helical antennas, antenna pedestals, bandpass filters and diplexers
- **Monitoring and Management Systems** – RF Isolation switches, RadHaz management, RF power sensors, directional couplers

Blacktree provides full vertical system integration including:

- **Design** – Collaborative solution identification; systems engineering; technology selection, product development for specific project challenges
- **Delivery** – Project management; procurement and manufacturing; system build, integration and testing; installation and commissioning
- **Sustainment** – Through life system maintenance and support, support for legacy and orphan products; obsolescence management; customised training for operators and maintainers.

DISCRIMINATORS

Vertical systems integrator for all UHF Satcom technologies

- Sole IP holder of 'Spirit River' and 'Cidaal Electronic' technology
- **Flexible and collaborative solutions:**
 - Technology agnostic and experienced with a range of new and legacy products
 - Able to provide full or part system life-cycle design
- Demonstrated **defence and security ethos**
- **Unique Australian sovereign capability** for highly specialised UHF narrow-band Satcom communication technologies

KEY CLIENTS AND PARTNERS

Global cross-industry client base

We provide direct and subcontracted services to clients such as:

- **Australian Defence** - Capability Acquisition & Sustainment Group, Interim sustainment of JP2008 Ph5A UHF SATCOM and operational units
- **Global Defence Prime Contractors**
- **Domestic and International governments** – Product sales and sustainment within UK, USA, Germany, Italy, Japan
- **Commercial** telecommunications, space, resources and industrial sectors (NBN Co, Intelsat, SES)
- **Short term critical infrastructure projects** – Special and major sporting events (Rally Australia, Australasian Safari)

'The Home of Spirit River and Cidaal' – Blacktree is the world's only supplier and maintainer of these specialist HPA and LNA technologies.



ACCREDITATIONS

- **ISO 9001:2015** Quality Management Systems
- **Compliant with Defence Export Controls** (Australia), conversant with ITAR and EAR policies (United States)
- NATO/National Stock Numbers for critical products. **NCAGE Code – Z0XK4**



CHC Helicopter (Australia)

Level 4, 1060 Hay Street
West Perth WA 6005
ABN: 46 007 916 912
ACN: 007 916 912
chcheli.com



Reach Beyond

At any given moment, on any given day, it is certain that CHC is flying somewhere around the world. We have spent over 75 years perfecting our services, and as a result, we are one of the world's safest and most experienced helicopter operators.

Our Purpose

We provide unmatched helicopter services that enable our customers to reach beyond – often in remote and challenging destinations that limit others – and come home safely. We are dedicated to getting our customers where they need to be, when they need to be there, anywhere in the world – safely and reliably.

Core Values

Simplicity
Agility
Collaboration
Innovation

Finding the most efficient way in everything we do
Moving quickly and decisively
Working together with candor and transparency
Creating solutions and leading change



CHC operate one of the largest fleet of the most advanced civilian helicopters in the world.

We have been operating 24/7 critical emergency service helicopter operations in Australia for over 30 years and are supported by a global organisation with unsurpassed buying power and supply chain support. Our operational experience in delivering EMS, SAR and law enforcement helicopters in remote and hostile climates sets us apart from the competition.

CHC employ approx. 2,500 staff worldwide with over 330 in Australia. We provide **helicopters, pilots, crew, engineers, support staff, aircraft bases, as well as full maintenance, repair and overhaul (MRO) services through our sister brand, Heli-One.**

CHC's contracts: Defence (Royal Australian Air Force (RAAF), Royal Australian Navy, Australian Army, Australian Border Force), Energy (Oil & Gas, Renewables), Search & Rescue (SAR), Emergency Medical Services (EMS).



Business offerings:

Emergency Medical Services, Search and Rescue, Fire Mapping, Airborne Law Enforcement, Oil & Gas Helicopter Services, Renewable Energy Helicopter Services, Maintenance, Repair and Overhaul

We uphold the highest operational standards:

ISO 14001:2015 Environmental Management Systems, ISO 9001:2015 Quality Management System, ISO 18001:2007 Safety Management System, ISO 45001:2018 Occupational Health and Safety (OH&S) Management System, BARS Certification, CASR Part 42 - Continuing Airworthiness Management Organisation (CAMO), CASR Part 145 - Approved Maintenance Organisation (AMO), CASA-approved Air Operator Certificate (AOC), CASA-approved Fatigue Risk Management System (FRMS), Part 138 Aerial Work Approval Certificate

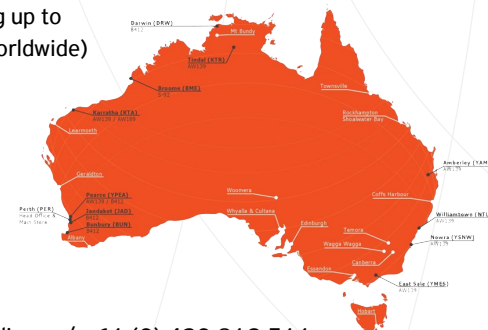
- **Large and varied fleet of aircraft** capable of carrying up to 19 passengers per trip (32 in Australia, 110 aircraft worldwide)
- **15 bases around Australia, 45+ worldwide**
- **Support for local employment** (especially important in remote areas where opportunities are scarce)
- **Active apprenticeship programs**

Contact us to see how we can help you **reach beyond!**

Perth Head Office: +61 (0)8 6217 7400

David Irvine - Commercial Director: David.Irvine@chcheli.com / +61 (0) 420 819 511

Luke Vanson - Sales Manager: Luke.Vanson@chcheli.com / +61 (0)417 855 862





Defence Science Centre

Part of the Australian Defence Science and Universities Network



What is the Defence Science Centre?

- The Defence Science Centre supports universities, small-to-medium enterprises and other organisations by facilitating connections that transform research and industry challenges into defence science capabilities.
- Objective is to provide Defence with the best research and development capabilities, whilst also providing researchers with the opportunity to apply their research to real-world problems.
- The Defence Science Centre (DSC) is part of the Australian Defence Science and Universities Network (ADSUN).

Who does the Defence Science Centre represent?

- Western Australian State-Government
- Defence Science and Technology Group
- Four publically-funded universities in Western Australia



Value to Defence and industry

- Cultivate relationships and identify linkages between universities, industry and Defence
- Highlight local research capability
- Facilitate collaboration for defence-relevant needs
- Identify opportunities for research and technology development
- Provide advice on Defence priorities, capabilities, needs and gaps
- Assist small business to understand the Defence capability supply chain
- Promote and show case Western Australian Defence research and innovation

Opportunities provided by the Defence Science Centre

Collaborative Research Grants

- Provides seed funding of up to \$150,000 for defence-relevant research collaborations in Western Australia

Research Higher Degree Student Grant

- Provides funding to students working on collaborative Defence relevant projects and/or undertaking defence industry placements as part of their study

Defence and Research Teaming

- Collaboration vehicle to bring together local defence industry and academia to explore solutions to declared defence problems or challenges

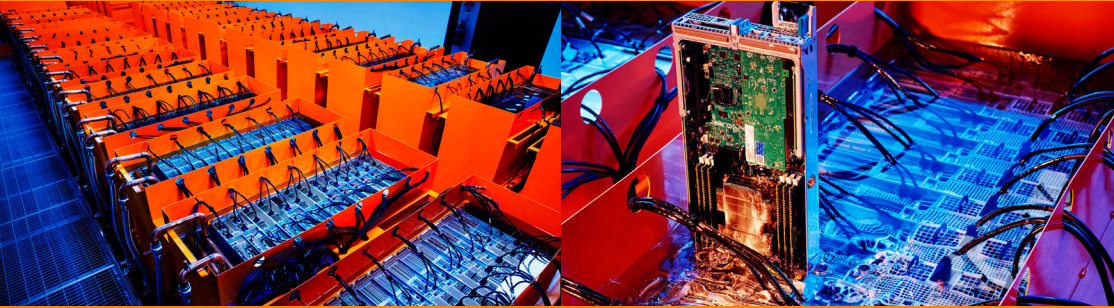
Assistance for other organisation schemes

- Advocates and promotes relevant opportunities such as AI for Decision Making, Autonomous Warrior, Next Generation Technology Fund, Austender, Broad Agency Announcements (US) D.Start, AUSMURI, STar Shots

Contact Details

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- twitter.com/DSC_WA
- [linkedin.com/showcase/defence-west](https://www.linkedin.com/showcase/defence-west)





Company Overview

DUG is an Australian technology company founded in 2003, specialising in analytical software development and reliable, green, high performance computing (HPC). DUG is focused on finding novel, performant solutions to large, complex problems—empowering clients by transforming data-analysis pipelines and knowledge sharing.

DUG's expertise in algorithm development and code optimisation enables clients to leverage big data with HPC. DUG's signal-processing software is currently used in 36 countries. DUG has offices in Perth (Australia), London, Houston and Kuala Lumpur, with a client-base spanning radio astronomy, biomedicine and meteorology, as well as the resource, government and education sectors.

DUG designs, owns, and operates a network of some of the largest and greenest supercomputers on Earth. DUG continues to innovate, towards a climate-positive future.

Core Capabilities

- High performance computing (HPC)
- High density, low power, containerised HPC solutions
- Mobile, edge HPC in shipping container
- Seismic signal analysis
- Interactive analysis and visualisation software for scientific big data
- Code optimisation

Differentiators

- 19 years of experience in HPC
- 9 years of experience in immersion cooling
- Green
- Reliable
- Australian-owned
- Multiple patents relating to seismic signal processing and cooling technology
- Expert support including code onboarding, optimisation and algorithm development
- World-leading technology
- Proven performance

Accreditations and Awards



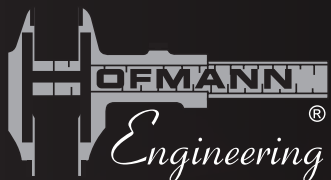
- Winner, Resources and Energy Award, 2022 Western Australian Export Awards
- Finalist, Advanced Technologies Award, 2022 Western Australian Export Awards
- Merit Recipient, Transformative Business Solutions Award, 2022 WAITTA INCITE Awards
- Finalist and Highly Commended, Energy and Renewables Award, 2022 InnovationAus Awards for Excellence
- Winner, 2019 Enterprise Data Center Design Award, Data Center Dynamics
- Winner, 2014 Cecil Green Enterprise Award, Society of Exploration Geophysics

Key Global Customers



Contact Details

Bryce Solomon
Chief Security Officer
E bryces@dug.com
M +61481233067
76 Kings Park Road, West Perth, Western Australia 6005



SERVING
INDUSTRY
SINCE 1969

QUAD CHART DEFENCE

CAPABILITIES/PRODUCTS

- Aerospace tooling, jig and fixtures
- Gear manufacturing
- Precision machining of exotic materials
- 5axis high speed machining
- Heat treatment
- Fabrication and welding
- Robotic Welding
- Repairs and maintenance
- Metrology/CMM's and Laser trackers
- Catia 5, NX and Solidworks, Cad/cam systems
- Onsite machining and fitting

KEY CUSTOMERS/PROGRAMS

- BAE Samlesbury UK/F35 tooling
- Boeing Aerostructures Australia/777 elevator mold tools
- Boeing Aerostructures Australia/787-8 and - 9/flaps
- Boeing Aerostructures Australia 737X winglets
- Airbus/A380 winglets
- Airbus/A340 main landing gear door
- GE Rolls-Royce Indianapolis/F36 turbine module engine tooling
- ASC Collins Class Submarines
- BAE Systems/M113 APC and armoured hull upgrades
- Thales/Bushmaster
- Cablex/Land121
- NSM/Anzac frigates
- Babcock Marine
- Austal Evolved Cape Class Patrol Boat Roll Fin Stabilisers

KEY DISCRIMINATORS

- Significant R&D capabilities
- 20+ years experience in design, development and manufacture of military and aerospace tooling components, jigs, fixtures and composite layup tooling
- One stop shop from design to manufacture
- Onsite services worldwide from initial consultation and inspection through to refurbishment and/or repair, installation and alignment
- Largest heat treatment capability in Australia
- Global premises/Representatives - Australia, USA, Canada, Chile, Peru, India, China
- Common ERP system used across all sites

QUALITY APPROVALS

- AS9100 - Aerospace/Defence - Cheltenham
- ISO9001, ISO45001, ISO14001 - Quality, Safety & Environment
- EN15085-2 - Perth & Bendigo
- ISO3834-Part 2 - Welding - Perth, Bendigo & Melbourne
- DISP - Entry Level (In Progress)
- AGMA Member - (American Gear Manufacturers Assoc.)

HOFMANN ENGINEERING PERTH

3 Alice Street, Bassendean (Perth) WA

Terry Gropp - Product Manager - Defence

Phone: (+61) 8 9379 5209 Mobile: M:(+61) 415 154 218

Email: Terry.Gropp@hofmannengineering.com

Core Capability

Complex aeronautical product development specialists, providing end-to-end capability from R&D through manufacture to in-service support in the Defence & Aerospace and aviation (general and commercial) sectors. Focus on VTOL unmanned aerial systems.

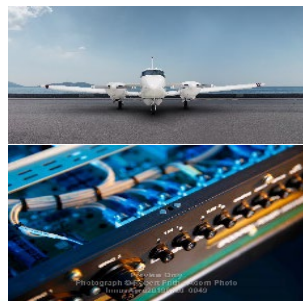
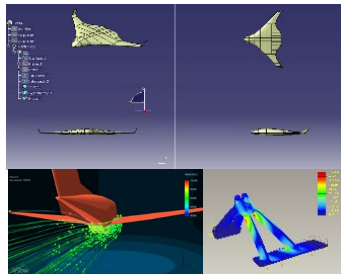
Capability Description

Engineering expertise in:

- Concept and detail design,
- Structural and CFD analysis,
- Rapid prototyping and manufacture,
- Flight test, in-service support and regulatory certification (CASA and FAA).

Manufacture expertise; includes:

- Machining and routing of metallic parts,
- Layup of advanced composite parts including pre-preg filament winding,
- Cable & harness assembly, PCB manufacture,
- Final assembly and product bench testing.



Competitive Discriminators

Innovaero has proven ability to provide full spectrum turn key services for aeronautical products; from design concept through to manufacture and certification. We are also the OEM for our own Defence and commercial industry products. We focus on medium and large autonomous VTOL unmanned aerial systems and high resolution camera arrays for wide area aerial survey.

Key Customers

- INSITU
- BAE Systems
- Air Force
- Australian Border Force
- Australian Army
- Cobham
- Network Aviation/Qantas
- WAPOL
- Nearmap
- Eagleview

Key Partners

- Momentum Aeronautics LLC,
- Thomson Design,
- Cognetic Pty Ltd,
- Boab Technical Services Pty Ltd,
- Applidyne Pty Ltd,

Awards



- 2023 Avalon Innovation Finalist
- 2021 AAUS Finalist Innovation
- 2021 Minister's Award for Excellence in Defence Industry
- 2019 Avalon National Civil Innovation Award
- 2019 Avalon Innovation Award for Aeronautics and Counter Drone Technology
- 2018 Engineering Excellence Award

CASA Approvals

CASR 21G, 21K, 21M, CAR30, CASR 21.120B, 21J, 145 (component overhaul).

Quality Certification

AS9100D Aerospace & Defence certified

Contact Details

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mike.vonbertouch@innov.aero





Sudesh Ranasinge
Director & Co-Founder

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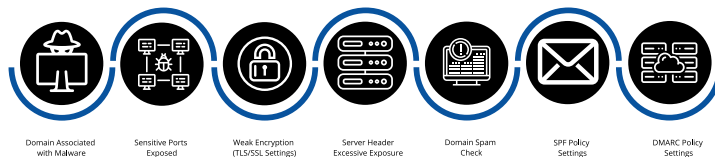
Products

Cyber Security Consulting & Professional Services

Supply Chain Cyber Security Risk Management

Supplier Security Assessment Platform

Security Program Development
(ISM, ISO 27001, NIST, PCI, APRA)



Capabilities

Cyber Security Consultancy

Fully Managed Cyber Security Supply Chain Program

Cyber Security Maturity Assessments

Risk Management & vCISO

www.lokusec.com/security-ratings/

Values

Australians serving Australian companies

Breaking the Cyber Security Consultancy paywall

Ethos of delivering direct, high quality outcomes

Accountability & Integrity

Trust through transparency

Experience & Certifications

Government, Defence, Critical Infrastructure,
Aviation, Mining and Financial Services

GIAC, CISSP, CISM, AWS & Azure Certifications

ISO 27001 Lead Auditor & Lead Implementor

End-to-End Security Program Implementation



AREA OF CAPABILITY

PRODUCT		KEY CUSTOMERS
<ul style="list-style-type: none">• North Kimberley Airport• A strategic airport located in the remote Kimberley, WA• Largest CASA Certified All Weather ICAO Compliant Airport in the North Kimberley• Code 3 C Airport• 520 km S/W of Darwin• 617 N/E of Broome• Runway Certification MTOW 38,500 KG• Fuel Farm with 175,500 L capacity for Jet A1• 2 x mobile refuelling trucks• 2 x CASA certified hangars for heavy maintenance• 2 x Storage hangars for storing airframes• Two aprons one dedicated to helicopters and medical plane, one dedicated for jets and other planes		<ul style="list-style-type: none">• Jadestone Energy (Eagle) Pty Ltd – Operating the FPSO Montara in the Timor Sea• Eni Australia Limited – Operating the Black Tip Gas Field in the Joseph Bonaparte Gulf• Petrofac Facilities Management Limited – Decommissioning the FPSO Northern Endeavour on behalf of the Federal Government• INPEX Operations Australia Pty Ltd – Laying the export gas pipeline from Ichthys to Darwin, support during COVID, medevac and cyclone support.• Offshore Services Australasia – Formally Babcock Australasia, contract by oil and gas clients to provide helicopter support• PHI Aviation – Contracted by oil and gas clients to provide helicopter support
CAPABILITIES		
<ul style="list-style-type: none">• Accommodation for up to 87 people in ensuite single rooms• Kitchen and Mess to cater for up to 100 people• Common TV room with Foxtel• Swimming Pool• Gymnasium• Provided support for the evacuation of the Siev 36 incident one hangar was set up for medical triage and stabilising patients prior to be flown to major hospitals• Provide support for search and rescues missions for AMSA• Support to offshore facilities during cyclone evacuation and remanning		
	CONTACT / ADDRESS DETAILS General Manager – Heather Veal M: 0439 814 780 E: general.manager@nkairport.com.au Level 25, 108 St Georges Terrace, Perth www.nkairport.com.au	
Scan to visit our website		



Discriminators

- Proudly 100% Australian owned and operated
- Sovereign capability
- Industry leading bespoke specialist engineering
- Rapid concept development and prototyping
- Six decades inhouse oilfield technical limit expertise
- Unique & innovative patented product line
- Pioneering advanced additive manufacturing
- Holistic full carbon lifecycle optimisation

Capabilities & Awards

- Advisory and engineering services
- Technical limit' concept design, prototyping/ production
- Efficient, on time and on budget engineering solutions
- 3D concept modelling and additive manufacturing
- Remote site operations optimisation



Innovative Engineering Systems Design

Onetide is an award winning, highly innovative, wholly Australian owned and operated engineering company.

We apply our 'technical limit' proprietary engineering designs and sovereign advanced additive manufacturing capabilities to design and deliver novel, engineering solutions to withstand the harshest environmental conditions and meet the highest safety standards.

Our pioneering patented products and engineering provide full cycle carbon optimization products and solutions for defence, disaster relief, resources and maritime applications. This integrated family of innovations allows rapid deployment of engineering solutions in power, water, communications, logistics and essential infrastructure to remote locations.

Roy Mitchell
Director – Principal Systems Engineer

U1/9 Kalmia Road, Bibra Lake
Western Australia, Australia 6163

T: +61 409 366 814
E: info@onetide.com.au
W: onetide.com.au

Quality Standards and Certifications

- DISP *
- ISO 90001:2015 *
- ISO 14001:2015 *
- ISO 45001:2018 *
- ISO 27001:2017 *
- DNV2.22



*in progress

Key Customers & Partners



Key Products



MISSION DECK™
No weld sea fastening system for rapid logistics on vessels of opportunity in "one tide".



RAPID REEL™
Deployment, retrieval and storage system expediting shore power and flat fuel hose handling.



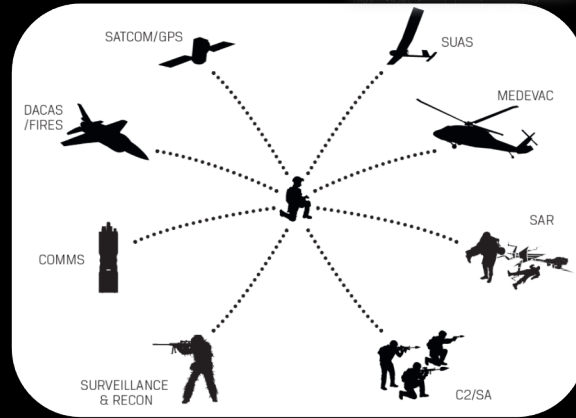
MOBILE MICROGRID™
Scalable, mobile, grid quality, hybrid renewable power supply.



MISSION CLOAK™
Signal protection, IR cloak, EMP/ECM protection, EMI/RFI shielding.



PRECISION TECHNIC DEFENCE
PROVIDING TACTICAL SOLUTIONS



Networked Battlespace Communications Systems
Enhanced Lethality and Survivability
Increased Decision Superiority

www.ptdefence.com.au
info@ptdefence.com.au



LEGEND

- AD-TO-GROUND COMMUNICATIONS
- UNIT-TO-UNIT COMMUNICATIONS
- UGV COMMUNICATIONS

- POWER - BUA
- POWER ONLY
- DATA ONLY

COMBAT SEARCH & RESCUE (CSAR) & MEDEVAC SUPPORT

BDAtech Hub Systems facilitate CSAR and Medevac support by integrating a variety of datalinks such as COT, VHF, SAT, and/or Link-16 with your preferred software. All peripheral devices can be controlled through your Windows or Android EUD, increasing the SA required for CSAR and Medevac operations.

TAC WITH 4-PORT CONFIG.

The BDAtech Hub Systems are scalable, enabling a TAC to control the most powerful systems that will maintain the most control for operations, making it a TAC control center for a TAC. It can be used in a more robust and as a dual use of peripherals can be used in a TAC and a TAC.

INFANTRY MEMBER

The BDAtech 1-Port Hub System can easily integrate with virtually any existing SA setup to facilitate SA with the rest of the Infantry unit.

SUAS CONTROLLER

The SUAS Controller can employ the APEX 4-Port Hub System for dismounted capability of the SUAS without additional weight and take advantage of multiple peripherals. This allows the SUAS controller to move, shoot, and communicate without having to take out a cumbersome laptop or OUC.

DIGITALLY AIDED CLOSE AIR SUPPORT (DACAS)

BDAtech Hub Systems facilitate DACAS by seamlessly integrating COT, VHF, SAT, and/or Link-16 with preferred end-user software. BDAtech Hub Systems also integrate all peripheral devices such as VDU, radio, and ASES meeting on-demand access making your EUD a one stop shop for DACAS.

HELICOPTER CALL FOR FIRE (CFF)

Helicopter CFF missions can be executed by integrating the BDAtech Hub Systems with a variety of datalinks such as COT, VHF, SAT, and/or Link-16 with your preferred software. BDAtech Hub Systems enable all peripheral devices such as VDU, radio, and ASES to be at your fingertips making your Windows or Android EUD the ideal Helicopter CFF tool.

TACTICAL OPERATIONS CENTER OPERATIONS COMMANDER

BDAtech Hub Systems can be used in a variety of ways to facilitate TAC operations. For example, multiple APEX 4-Port Hub Systems can be deployed together to facilitate a TAC. BDAtech Hub Systems can be used to facilitate a TAC. BDAtech Hub Systems can be used to facilitate a TAC. BDAtech Hub Systems can be used to facilitate a TAC.

SOF GUNSHIP CALL FOR FIRE

BDAtech Hub Systems seamlessly facilitate SOF Gunship CFFs by integrating a variety of datalinks such as COT, SAT, and/or Link-16 with your preferred software. All of your peripheral devices such as VDU, radio, and ASES will also be at your fingertips making your Windows or Android EUD the ideal allowing you to quickly bring down effective fire on your targets.

ELECTRONIC WARFARE SUPPORT

BDAtech Hub Systems seamlessly facilitate EW support platforms such as Electronic Warfare aircraft. This gives the ground forces additional capabilities when acting as a nuclear target to the EW aircraft.

SOF MFF OPERATOR

The BDAtech 1-Port Hub System can easily integrate with virtually any existing SA setup to facilitate MFF operations by taking advantage of the BDAtech Hub System's capabilities, such as HMD Situational Awareness (SA), to provide SA on the MFF team and navigation through software such as ARX.

TAC WITH 2-PORT LIGHT CONFIG.

The BDAtech Hub System can be used in a variety of ways to facilitate TAC operations. For example, multiple APEX 4-Port Hub Systems can be deployed together to facilitate a TAC. BDAtech Hub Systems can be used to facilitate a TAC. BDAtech Hub Systems can be used to facilitate a TAC.

SHOOT TEAM MEMBER

The BDAtech 1-Port Hub System can easily integrate with virtually any existing SA setup to facilitate SA with the rest of the Shoot Team member.

SUAS CONTROLLER

A SUAS Controller can employ the APEX 4-Port Hub System for dismounted capability of the SUAS without additional weight and take advantage of multiple peripherals. This allows the SUAS controller to move, shoot, and communicate without having to take out a cumbersome laptop or OUC.

SOF OPERATOR

The BDAtech 1-Port Hub System can easily integrate with virtually any existing SA setup to facilitate SA with the rest of the SOF operator.

EOD UGV CONTROLLER

EOD units can employ the APEX 4-Port Hub System for dismounted capability of the UGV without additional weight and take advantage of multiple peripherals.

GROUND FORCE COMMANDER

A Ground Force Commander can employ the Assault 2-Port Hub System to facilitate battle tracking and Situational Awareness (SA) of their battle space and ground forces. BDAtech Hub Systems integrate all of a Ground Force Commander's equipment and allow for digital communication using existing radios.

SPECIAL OPERATIONS FORCES TEAM LEADER

A Special Operations Forces Team Leader can employ the Assault 2-Port Hub System to facilitate battle tracking and Situational Awareness (SA) of their battle space and ground forces. BDAtech Hub Systems integrate all of a Special Operations Forces Team Leader's equipment and allow for digital communication using their existing radios.



PRECISION TECHNIC DEFENCE

www.ptdefence.com.au
info@ptdefence.com.au

A BDAtech CAPABILITIES OVERVIEW

BDAtech products provide the War Fighter the technical edge needed to successfully support various mission-sets. Because when it matters most, you want something **Built. Tested. Proven.**

I Overview

QL Space is an Australian Earth observation data company that equips our customers, across multiple industries, with the near real-time insights they need to optimise, plan, monitor, model, design and execute cost-effective, time-saving and sustainable business decisions and processes.

Bringing together high-resolution satellite imagery, big data, smart sensors, machine learning, AI and edge computing, QL Space provides customised, end-to-end solutions uniquely tailored to our customers' specific business goals and needs.

I Discriminators

Turning data into knowledge:

Despite large volumes of Earth Observation data now readily available, businesses continue to wrestle with how to capitalise on and derive meaningful terrestrial value and insights from global-scale satellite imagery. At QL Space we take out the guesswork, delivering solutions that are easy to understand, structured and scalable for large businesses.

Australian:

Australia has niche Earth Observation and remote sensing requirements compared to the rest of the world due to our unique geography, population distribution and geopolitical stature. As an Australian company we are uniquely positioned to meet our Australian customers' needs.

I Solutions



MINING

- Critical earth exploration mining
- Supply chain mapping



AGRICULTURE

- Precision farming
- Agricultural monitoring
- Agri-insurance



AEROSPACE

- Airport information management



INFRASTRUCTURE

- Transmission line planning
- Monitoring rail and road conditions
- Remote monitoring of infrastructure assets



ENVIRONMENTAL

- Wind farm mapping
- Monitoring carbon and methane emissions
- Environmental impact assessments



DISASTER AND RECOVERY

- Bushfire and flood management and recovery

I Contact us



Raj Gautam

Founder and CEO
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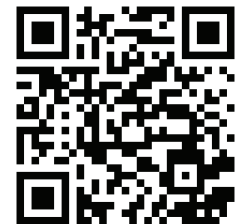
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Engineering Team Lead
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Ariane Platell

Head of Communications and Public Affairs
ariane@qlspace.com.au



I QL Space is proud to be collaborating with our partners:






radlink
COMMUNICATIONS

DEFENCE

Products

- Modular communications solutions
- Rapidly deployable infrastructure
- Remote monitoring and support
- Hybrid power systems
- Tower construction
- Infrastructure
- Power storage systems
- Enclosures/shelters/sea containers/outdoor cabinets
- Microwave solutions
- Mesh networks (WiFi)
- CCTV
- Lte
- Telemetry & SCADA
- Digital radio systems
- Portable/mobile digital radios
- Civil works

Capabilities

- 24/7 Australian-based Support and Technical Assistance Centre
- 70 Radio base stations deployed on Training Area Safety Network (TASNet) sites and 28 in design and build stages
- Radlink inhouse RevelocPlus used on TASNet training areas for network diagnostics, emergency management and geofencing
- Over 500 Radio base stations deployed in non-defence clients
- Over 100 Radlink designed and built fixed infrastructure, 250 transportable skids and 250 trailers deployed
- Thousands of operational and emergency services technology and critical communications vehicle installations nationwide
- 100,000 plus end-user devices deployed

Differentiators

- Leading technology integrator utilising in-house Australian-based program, project management, engineering (communications, software, electrical and mechanical), drafting, technicians, communications rigger, fabrication, build, installation and support services
- Fully vendor-neutral providing flexibility to meet client's tailored requirements using best-of-breed technology from leading vendors without compromising functionality and quality
- Proven track record of custom, proven, scalable, multiple technologies, off-grid supported and sustainable solutions deployed throughout Australia
- Innovative solutions allowing fixed infrastructure capacity in transportable solutions
- Full end-to-end capability reducing costs and delivery schedules

Key Customers

Defence:

TASNet across 33 training areas and 98 sites, supplied RevelocPlus, training, end-user devices, vehicle installations, fixed and transportable infrastructure, energy solutions and technologies.

Public Safety, Utility and Government Sector:

Supplied end-users devices, vehicle installations, fixed and transportable infrastructure, energy solutions and technologies.

Resource Sector:

Supplied RevelocPlus, training, end-user devices, vehicle installations, fixed, transportable and mobile infrastructure, energy solutions and technologies.

Major Resource Sector Clients



Non-Resource Sector Clients



Key Partners



Contact Details

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Defence Program Manager

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genZ

Scalable Energy Storage Solutions



genZ
Scalable Energy Storage Solutions

DEFENCE

Founded in 2015, GenZ Energy has quickly grown to one of Australia's most trusted battery brands.

LFP (Lithium Ferro Phosphate) batteries from genZ are suited to harsh conditions where high temperatures, long maintenance-free installation and rugged design are vital for Mission Critical performance in the field.

Products

- 6T NATO Standard LFP (Lithium Ferro Phosphate) Battery
- 12V / 48V Front Terminal LFP Battery (Telco style)
- 48V / 24V Rackmount LFP Batteries
- 12V / 24V / 48V LFP Plastic Case Batteries
- Power Systems and Battery Cabinets
- Power Distribution Units
- 12V 50Ah Steel Case LFP Power Pack



Capabilities

- Supplied over 65MWh of energy storage since 2017
- Delivered modular rackmount power systems from 2KWh to beyond 700KWh in a single system
- Australian based engineering team for local support and R&D
- On grid or off grid energy systems
- Designed and delivered bespoke mission critical power solutions for defence, government and resource sectors
- Full lifecycle support from design to return and recycle program at end of life
- Leasing options to fit OpEx and CapEx budgets
- Intelligent Battery Management System (BMS) with communications and data layer engineered by genZ Australian engineering team, with capabilities of providing SNMP traps and get requests, data analysis and remote configuration.

Differentiators

- Committed to providing green energy to Industrial and residential power systems nationwide.
- Australian designed and engineered, built for harsh Australian conditions
- Australian based company with local phone and online support
- Large distribution network and warehousing facilities in 5 states across Australia
- 10 year 10,000 recharge cycle warranty on rackmount battery systems*
- Clean Energy Council (CEC) approved batteries

Key Customers

Defence:

Training Area Safety Network (TASNet) supplied 2,900KWh of LiFePO4 batteries.

House power for 4 x Paluma class AGSC. Survey Motor Launches, HMAS Shepparton, Benalla, Mermaid and Paluma (156KWh).

Public Safety, Utility and Government Sector:

GenZ Energy products are in most levels of government within Australia with a strong install base in the emergency services and off grid projects.

Major state run utilities depend on genZ as a source of backup power in the event of power failures and power shaping.

Resource Sector:

Over 32MWh of genZ Battery Storage

Government Public Sector



Quality Standards and Other Accreditations



Utilities



Public Safety



Key Partners



Contact Details

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P: +61 1300 979 760

W: www.genz.com.au

Products

- RevelocPlus asset management and tracking tool
- PRTG network management platform
- DAMM 422 VHF Analogue, DMR and Tetra capable base station
- AVLITE and Farlight aircraft warning lights
- Bosch PTZ 7100i cameras
- Cisco industrial switches and routers
- Eltek AC and DC Powercores
- genZ LiFePO4 batteries and outdoor cabinets
- Jotron VHF and UHF aeronautical radios
- Sunpower solar panels
- NEC iPaso PTP Microwave
- Radlink transportable scalable skids
- FEC self-support towers and guyed masts
- FEC above and below ground foundations
- TAIT mobile and portable radios (VHF Analogue and DMR)
- Sepura mobile and portable radios (VHF Tetra)

Capabilities

Design and Deploy Communications Solutions:

- TASNet is currently deployed to 23 Training Areas with the remaining 10 TAs planned to be deployed and DCert by the end of 2023 covering all States and Territories
- A total of 98 TASNet sites will cover 33 TAs with 70 currently operational and the remaining planned to be operational by project completion
- 42 modular transportable Radlink skids will be deployed by the close of 2023

Engineering and Delivery of Green Energy Solutions:

- Over 1.6MW of genZ LiFePO4 batteries providing backup power with a further 900KW planned by project completion across the remaining 28 sites
- More than 216KWatts of solar will be deployed once all sites are operational

Installation and Support:

- 250 vehicle installs will be completed by end of the project; including safety and emergency services assets
- Around 3200 fixed and mobile radio assets registered on the existing TASNet system with a further 400 assets planned by the end of 2023
- TASNet has full remote 24/7 monitoring and support

Differentiators

- **24/7** Australian-based Support and Technical Assistance Centre (TAC)
- **Remote** diagnostics, fault finding and rectification via PRTG and Radlink TAC
- **GPS asset management and tracking** of all TASNet mobiles and portables
- **Ability to create and manage** 250 GEO-fencing profiles with multiple entry and exit rules triggering violations via RevelocPlus
- **Minimum 4.5 days** of autonomy on all off-grid sites
- **Multiband, Multi-Tech interoperability** between several TA functions including RCO, ACN, UMPNET and Ranger Net
- **Internet Protocol (IP) based communications technology platform** that gives full architectural network flexibility enabling the system to increase capacity, extend network coverage or move capacity from one area to another, as required, even while the radio communications system is fully operational
- **Distributed network topology** which allows for building more robust networks
- **Leading technology integrator** utilising in-house Australian-based program, project management, engineering (communications, software, electrical and mechanical), drafting, technicians, communications rigger, fabrication, build, installation and support services
- **Fully vendor-neutral** providing flexibility to meet TASNets tailored requirements using best-of-breed technology from leading vendors without compromising functionality and quality
- **Proven Track record** of custom, proven, scalable, multiple technologies, off-grid supported and sustainable solutions deployed throughout Australia
- **Innovative solutions** allowing fixed infrastructure capacity in transportable solutions
- **Full end-to-end capability** reducing costs and delivery schedules

Key Partners



Quality Standards and Other Accreditations



Contact Details

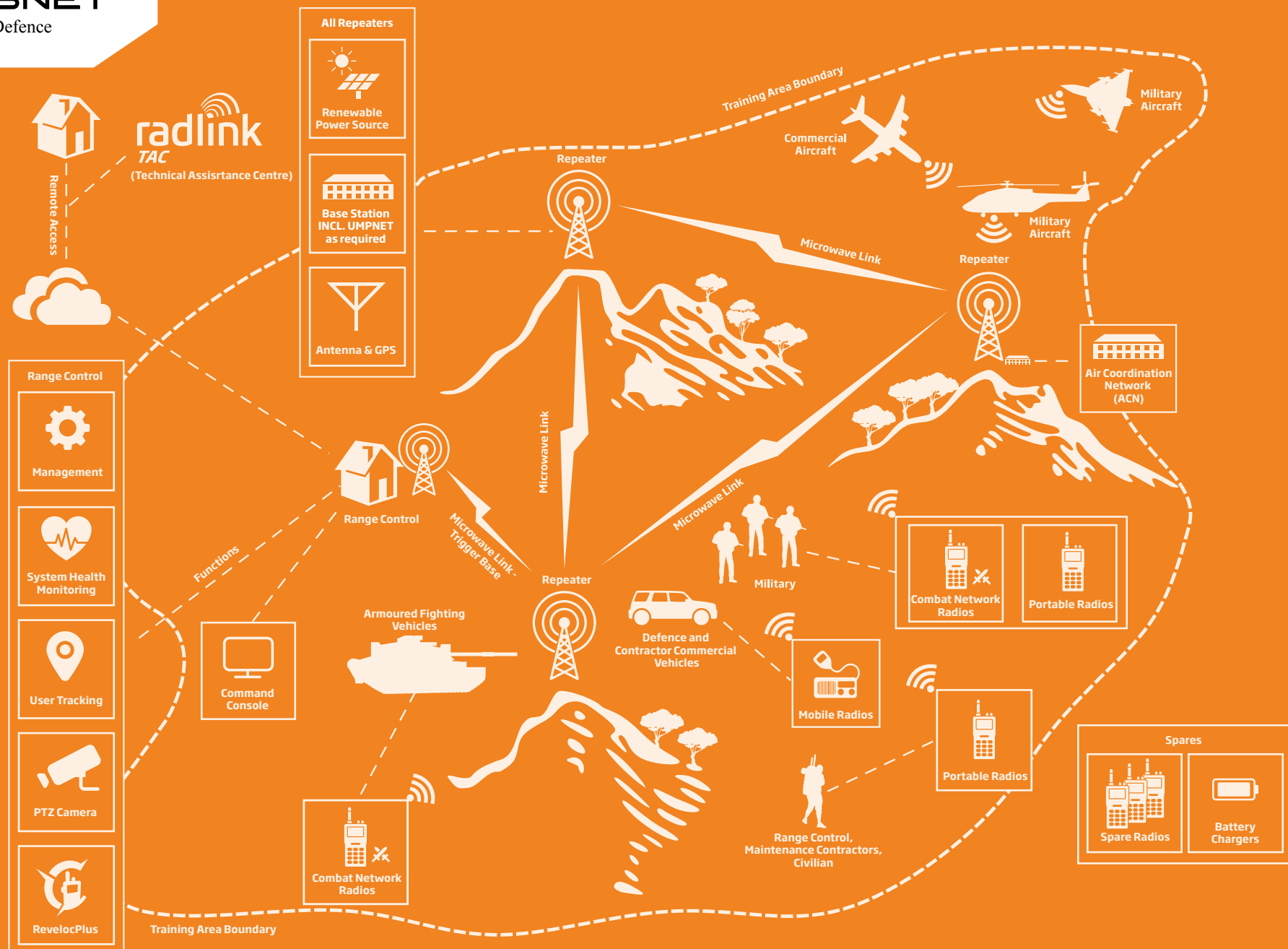
Bela Felsner

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Cybersecurity Solutions



PRODUCT

Crystal Eye XDR is a consolidated security platform that allows organisations to:

- Reduce the risk of a cyber security incident
- Reduce the time to detect and respond to a threat
- Reduce the cost of securing their business

The platform delivers sovereign cybersecurity capability, including:

- Increased threat visibility across the entire network
- On-demand threat hunting to pro-actively detect a breach
- Human-machine teaming for improved incident response

CAPABILITIES

Red Piranha is DISP certified and we offer a comprehensive range of DISP solutions to get you secure and certified.

- DISP assessments
- DISP ASR (Annual Security Report)
- DISP accreditation
- Cybersecurity solutions
- ODIS grants advisory
- Cybersecurity consulting services

DIFFERENTIATORS

- One of the first vendors globally to launch an XDR platform
- One of the few Australian companies with a technology platform and integrated security services for true sovereign capability
- The most comprehensive DISP accreditation service with turn-key solutions

CUSTOMERS

DISP accreditation projects:



"Red Piranha's DISP consulting solution simplified the application process, making it faster, easier and a more effective use of resources."

- Simon Williams HSEQ Advisor at Orontide.

PARTNERS

Through our relationship with Defence West, Red Piranha has joined forces with North Metropolitan TAFE and South Metropolitan TAFE to improve the quality of next generation cybersecurity graduates.

STANDARDS & ACCREDITATIONS

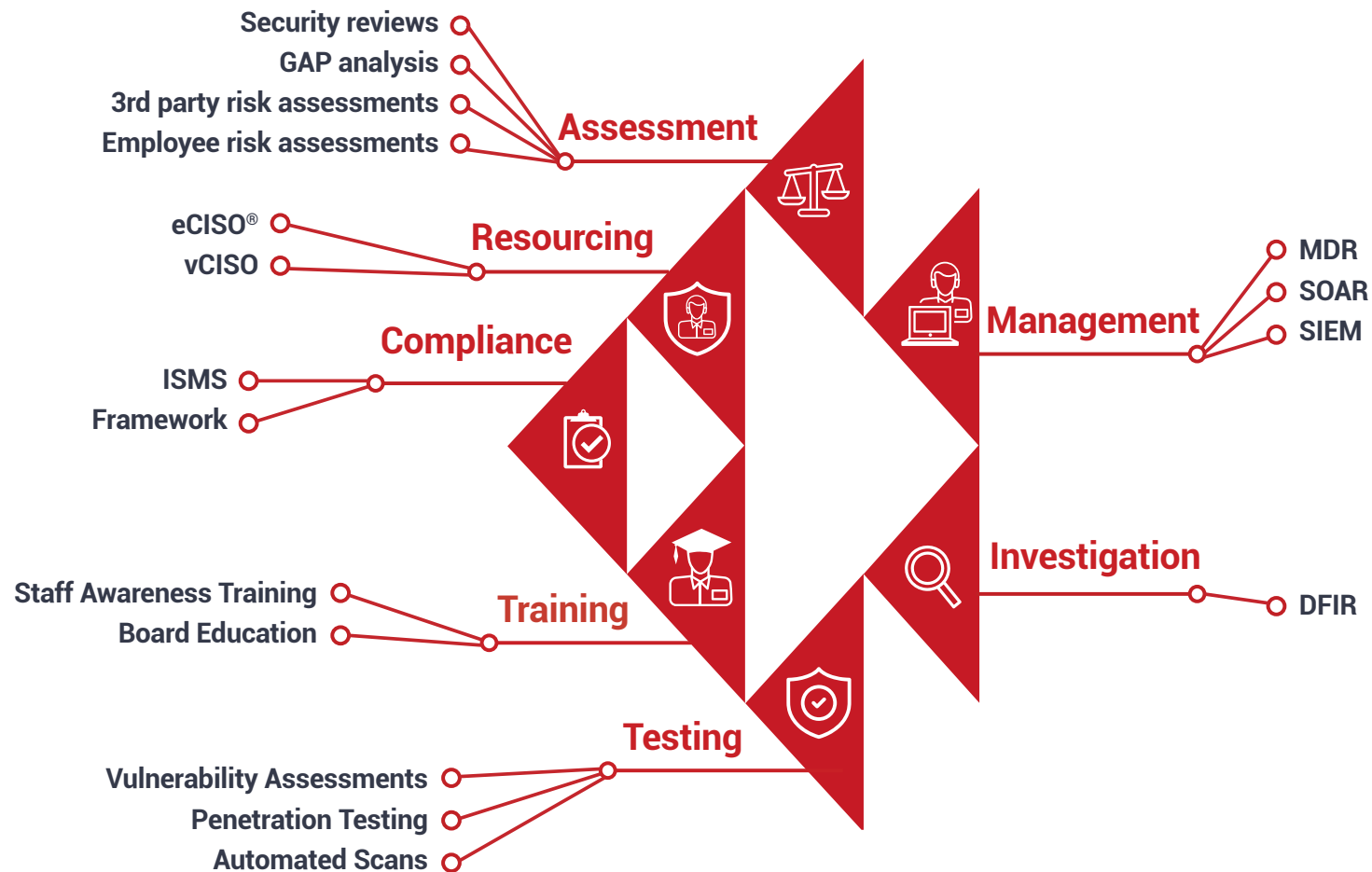


Cybersecurity Solutions



RED PIRANHA SERVICES

We can help you achieve compliance through our extensive range of services:



Safety Direct Solutions – Critical Risk Management



Proven Experience



As a true national company SDS has offices in Perth, Darwin, Cairns, Adelaide and Sydney. Our contracts include Tier 1, Energy, Mining, Infrastructure and Defence clients. SDS has extensive experience working on the following class of defence vessels: ANZAC, LHD, LLC, Minesweeper, AOR, DDG, Armidale, Cape and Evolved Cape Class.

SDS is a diverse organisation capable of offering various services including:

- Managing comprehensive permit-to-work systems (PTW)
- Issuing all on-site permits for critical risk tasks (e.g working at heights, confined space, hot works)
- Monitoring and maintaining safe work environments
- Provision of on-site tailored training to contractors
- Health and safety audits and guidance
- Provision of customised rescue services
- Provision of specialised emergency response vehicles and equipment containers
- Fire mitigation services
- Confined space auditing
- Issuing shutdown permit

Current and Recent Major Clients

- Naval Ship Management (NSM)
- Thales Australia
- BAE Systems Australia
- Raytheon Australia
- Simcoa Operations
- BHP Iron Ore
- Liebherr
- Kleenheat
- NewGen Power Kwinana Pty Ltd
- Austal Australia
- Navantia Australia

Capability and Scope in Critical Risk Management



Established in 2004, Safety Direct Solutions (SDS) take the lead on critical risk activities for our clients so they can focus on their core business. The critical-risk management team at collaborate with our clients to develop and facilitate personalised safety/critical risk management, emergency response and rescue policies, plans and procedures.

As a proud veteran sponsor SDS delivers critical risk services utilising former defence Personnel. Our teams are also made up of emergency service, trade, engineering and or safety qualified Personnel, who have industry experience and backgrounds. Before these personal are recruited they go through an extensive verification of competency and continuous development program.

As a turnkey Critical Risk Management Company, SDS Critical Risk Management Team can supply the following personnel:

- Site Access Controllers
- Isolations Officers
- Permit Officers
- Gas Testers
- Confined Space Sentries
- Rescue Personnel
- Medical Personnel
- Safety Officers
- Security Personnel

Certification and compliance



Safety Direct Solutions Pty Ltd is a Registered Training Organisation Training Provider Number 51632.



Defence Industry Security Program

Contact details



Email: CRMT.admin@sdsaus.com.au
Phone: 1300 955 097
Website: www.sdsaus.com.au



Locations

- **Perth** 143 Balcatta Road, Balcatta WA (Head Office)
- **Sydney** 3/7 Jullian Close, Banksmeadow NSW
- **Adelaide** 166 Grote St, Adelaide SA
- **Darwin** 5/124 Coonawarra Road, Winnellie NT
- **Cairns** 2/46 Ponzo Street, Woree QLD

SDS take the lead on critical risk activities for our clients so they can focus on their core business



Safety Direct Solutions – Training Courses



Scope in Training Courses



> Medical Courses

- HLTAID009 Provide cardiopulmonary resuscitation
- HLTAID011 Provide first aid
- HLTAID014 Provide Advanced First Aid
- HLT PAT005 Collect Specimens for Drugs of Abuse Testing
- HLT21020 Certificate II in Medical Service First Response
- HLT41120 Certificate IV in Health Care
- HLT51020 Diploma of Emergency Health Care
- NAEMT Pre-Hospital Trauma Life Support
- NAEMT Advanced Medical Life Support

> Emergency Service

- RII30719 Certificate III in Emergency Response and Rescue
- RIIERR302E Respond to Local Emergencies and Incidents (Incident Command)
- PUAFER005 Operate as part of an emergency control organisation (Fire Warden)
- PUAFER006 Lead an emergency control organisation (Chief Warden)

> Industrial Courses

- RIIWHS204E Work Safely at Heights
- RIIWHS202E Enter and Work in Confined Spaces
- MSMWHS217 Gas Test Atmospheres
- MSMWHS216 Operate Breathing Apparatus
- CPPFES2005 Demonstrate first attack firefighting equipment

Current and Recent Major Clients

- > Pilbara Iron
- > BHP
- > Water Corporation
- > Yara Pilbara
- > Santos

Company Capability



Safety Direct Solutions Pty Ltd (SDS) is a Registered Training Organisation (RTO #51632), founded in 2004, and a leading provider of medical emergency response and rescue, fire and industrial safety training and personnel in the Australasian region.

SDS set the benchmark in Australia for excellence in safety training and emergency management.

Proven Experience

The SDS training department runs nationally accredited or client specific training which can be contextualised to meet the requirements of each client and ranges from introduction level safety or first aid courses, through to comprehensive training programs such as Certificate III in Emergency Response and Rescue or Diploma of Emergency Health Care.

SDS is one of the only companies supplying Medical and Rescue personnel that has its own purpose-built live Fire-Fighting training ground, enabling personnel to continually develop and enhance their skills in a real-life simulated environment.

In addition to the live fire-fighting ground, SDS has a high-fidelity medical skills centre whereby all our Medical and Rescue personnel can undertake skills training run by our in-house Doctor, Nurses, and Paramedics.

Certification and compliance



Safety Direct Solutions Pty Ltd is a Registered Training Organisation Training Provider Number 51632.



Defence Industry Security Program

Services



SDS can provide a complete training management service for you and your workforce to aid in the ongoing management of your learning and development requirements.

Contact details



Email: training@sdsaus.com.au
Phone: 1300 955 097
Website: www.sdsaus.com.au



Locations

- > **Perth** 143 Balcatta Road, Balcatta WA (Head Office)
- > **Sydney** 3/7 Jullian Close, Banksmeadow NSW
- > **Adelaide** 166 Grote St, Adelaide SA
- > **Darwin** 5/124 Coonawarra Road, Winnellie NT
- > **Cairns** 2/46 Ponzo Street, Woree QLD

SDS take the lead on critical risk activities for our clients so they can focus on their core business





Company Description

- Sapien Cyber gives you complete visibility of your **cyber vulnerabilities** and **malicious activities** on your **cyber-physical networks** in the context of the **actual risk** to your **operational capabilities**
- Australian owned and developed



Complete Suite of Cyber Tools

Network visibility, asset monitoring, attack surface management, threat intelligence, threat detection and response in one integrated cybersecurity suite for OT.



Discriminators

- Sapien Wingspan is the only system capable of enabling Cyber Risk in OT environments to be managed in the same way as other Risks to Defence operations such as geo-political events or extreme weather conditions.
- Finds and prioritises vulnerabilities and malicious activities based on capability impact, using the IEC 62443 system-based risk model. High situational awareness = effective incident response.
- Optimises Maintenance activities based on maximising risk reduction (Risk Buydown).

Key Clients



Key Sectors

- Oil and gas
- Defence
- Utilities
- Building management
- Critical infrastructure

Quality Approvals and Awards

- Completing DISP Entry Certification

Awards:



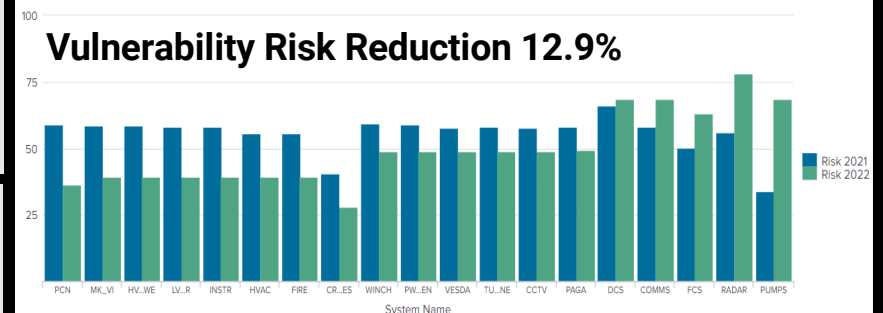
Finalist:

- InnovationAus Excellence – Cybersecurity
- InnovationAus Excellence – Peoples' Choice

Cyber Risk Buydown

- Measures and monitors changes in risk for critical OT systems over time
- Advanced algorithm advises on optimum risk reduction for a given amount of effort
- Operators can test the effect of specific patches/remediations on overall risk

Vulnerability Risk Reduction 12.9%



Company Name: Sapien Cyber Ltd

Sales Contact : Sonja Pajagic - Head of Sales

Executive Contact: Rochelle Fleming – CEO

P: 1800 378 200 **W:** www.sapiencyber.com.au

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M: 0417 300 375 **E:** rf@sapiencyber.com.au



Finding and prioritising Vulnerabilities and Threats based on the actual risk to your operational capability.



What's your capability edge without fuel ?



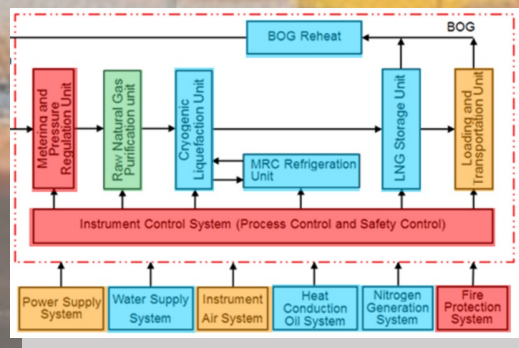
Identify and Respond to new vulnerabilities



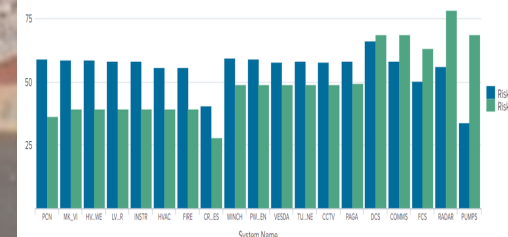
Monitor network traffic for malicious activity

Identify Vital Systems & their associated Risks

Optimise Maintenance through Risk Buydown



Vulnerability Risk Reduction 12.9%



“Protecting the world we live in”

Digital Aerospace Company

**SPACE
ANGEL™**
Future Proofing Human Well-Being

COMPANY OVERVIEW

Space Angel is a digital aerospace company that specialises in the development of cutting-edge technology for the space industry from advanced autonomous systems, spacecrafts to digital tools and platforms that improve in situ space operations and exploration. We help to make space more accessible, cost-effective and efficient for government, defence and commercial customers.

OUR CAPABILITIES & PRODUCTS

- Advanced communications systems using fixed, mobile terrestrial and satellite technologies;
- Autonomous control systems, AI, Robotics, IIoT, device management and data analytics, cyber-security systems and user experience digital platforms.
- Orbital and Suborbital Launches for Polar and Sun Synchronous Orbits;
- Advanced Manufacturing (3D and Additive) Rockets, Fuel & Propellants;
- Mission and Launch Control Systems;

SPACE SEGMENTS: Access to Space; Robotics & Automation; Communications.

DEFENCE SEGMENTS : Government & Defence Launches.

DISCRIMINATORS

- 100% Australian and Privately Owned;
- Launch as a Service (LAAS) Provider;
- Significant Australian Government and WA State Government Support;
- QUAD Space Agencies as strategic partners;
- Trusted and Verified by the Government;
- Leaders in the Indian Private & Public Space Sector Relationships;
- Proven Private and Public Space Technology Partners;
- Public Safety, Environment, Legislation and Sustainability are core pillars.
- Decades of experience in deploying and managing large scale capital and long term operational projects.

KEY PARTNERSHIPS



FLAGSHIP PROJECT : WORLD'S FIRST GREEN SPACEPORT

Space Angel is establishing world's first green spaceport or rocket launch facility at the southern ranges of Western Australia. This is a state-of-the-art facility that utilises Industrial IoT, renewable energy and sustainable design principles to enable a rocket launch site for commercial, scientific and government space missions featuring solar, hydrogen, battery and wind power, energy-efficient buildings, and water system.

The facilities are to be developed in response to the growing demand for the launch of domestic and international vehicles for polar and sun-synchronous orbit satellite market. This green Spaceports will be powered by green energy drawn from solar, hydrogen, wind and battery technologies. The spaceport will also be designed embracing new digital technologies such as 5G, AI, IIoT, Autonomous Vehicles, Remote Operations and with the support of an R&D Centre of Excellence for Space.



CUSTOMERS

- Southern Ports Authority
- Water Corporation
- Savonia University, Finland
- Queensland University
- Curtin University
- Energy Queensland
- Downer Defence

CONTACT DETAILS

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SOUTH METROPOLITAN TAFE DEFENCE INDUSTRY TRAINING CAPABILITY



PRODUCT

SOUTH METROPOLITAN TAFE (SM TAFE) OVERVIEW

WINNER OF THE 2022 ACADEMIC INSTITUTION OF THE YEAR AT THE AUSTRALIAN DEFENCE INDUSTRY AWARDS

- 300 vocational courses and qualifications
- 25,000 students
- 12 campuses

DEFENCE INDUSTRY TRAINING

- Applied Engineering
- Automation
- Aviation
- Composites Trade
- Cyber Security
- Defence Industry Trades (Including Marine Fabrication and Welding)
- Drone Technology
- Industry 4.0
- Supply Chain Management
- Logistics and Warehousing
- Maritime Studies
- Refrigeration and Air Conditioning
- Remote Pilot Studies
- Shipbuilding
- Submarine Maintenance

CAPABILITIES

TRAINING

- Accredited and non-accredited training programs
- Customised curriculum development
- Training needs analysis
- Recognition of prior learning (RPL)

SPECIALISED CAMPUS FACILITIES

- **Fremantle** – Ship bridge and engineering simulators, dynamic positioning
- **Jandakot** – Aviation hangar, aircraft and simulators
- **Munster** – Applied engineering systems, mechatronics and automation
- **Murdoch** – Training Cyber Security Operations Centre (TCSOC)
- **Naval Base** – Fabrication, welding and shipbuilding workshop
- **Rockingham** – Mechanical, CNC machining and fluid power workshops
- **Thornlie** – Mechanical and vehicle body building workshops

KEY CUSTOMERS

- **KBR** – Technical training for the Royal Australian Navy
- **ASC** – Collins Class Submarine training services
- **AUSTAL** – Apprenticeship training
- **CIVMEC** – Apprenticeship training

KEY PARTNERS

- **Royal Australian Navy, HMAS Stirling, Submarine Training and Systems Centre (STSC)** – Training services that delivers facilitators, curriculum developers and technologists
- **Naval Shipbuilding College** – Located on SM TAFE campus
- **Rio Tinto** – Resource industry automation training collaboration
- **University of Western Australia** – Industry 4.0 testlab for energy and resources digital interoperability
- **TAFEciber** – SM TAFE is lead member of ten TAFE colleges cyber consortium
- **Hofmann Engineering** – Apprenticeship training
- **BHP** – A range of collaborative programs and apprenticeship training

QUALITY STANDARDS AND OTHER ACCREDITATIONS

- Registered Training Organisation: 52787
- Engineers Australia accredited courses
- AMSA certification courses
- CASA certification courses

CONTACT

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General Manager Training Services

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Services and Products

- Human-machine-teaming software solutions
- Unmanned aerial vehicles (UAV) services
- R&D in autonomous aerial vehicles and robotics
- Unmanned aerial vehicle solutions in agriculture
- Data visualization tools, image processing, ML/AI
- Simulation and human decision-making support tools
- Image analysis, object detection, and computer vision
- Data analytics, machine learning, and AI software

Key Discriminators

- Team of highly motivated researchers with PhDs in information technology
- 22+ years of R&D experience in industry and research organizations
- Research capability in machine learning, data analytics, and image processing
- 22+ years in experience in developing large scale information systems
- Passionate start-up looking for hi-tec challenges to solve
- Experienced development partner network to ensure product outcomes

Key Customers and Programs

- Landgate SPUR Location Grant Program recipient for aerial drones for agricultural duties in 2022
- Northrop Grumman Australian technology showcase Australia finalist in 2022
- DStart Ignite (Dept. of Defense Australia) alumni of the winter cohort 2021
- Demonstrators, prototypes, and consulting for Perth based startup companies
- Collaborative project with a large scale Western Australian based research institute to utilise Augmented Reality (AR) in a medical application context
- Several SMEs and start-up companies on their IT prototypes and proof-of concept implementations
- Past clients include Curtin University, Perth, Australia for work integrated learning training

Capabilities

Unmanned Aerial Vehicles (UAVs) and Aerial Robotics

- Software and hardware development for customized UAVs
- Data capture, mapping, and digitalization of assets in 2D, 3D, and 360
- Flight automation software, mission simulations, and aerial robotics
- Customized IT and sensor data processing services (mobile apps, web-front-ends, ...)

Visualisation, Data Analytics, and AI/ML

- Image analysis, object detection, and 3D reconstruction
- Data analytics, data visualisation, AI, and machine learning solutions
- Analytics software development (Cloud, Webservices, Mobile Phone Apps)
- Computer vision, 3D, virtual/augmented reality, and simulation

Human-Machine-Teaming and Human Factors

- Human-Machine-Teaming
- User-Experience and Interaction Design
- Cognitive Workload Analysis



Quality Accreditations

CASA authorized UXMachines Pty Ltd to conduct commercial drone operations for RPAS aerial work. We are certified under CASA ReOC 7399, ARN 834101 for <25kg MTOW drones.

Contact

SCAN ME



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Founder/Director

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Vescient Pty Ltd

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Services

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Vescient is a veteran-owned company, with national and international reach, providing professional services for Defence sector strategy, capability, and organisational development, including training. We are a partner-of-choice for thought leadership and practical support in overcoming complex challenges. We offer innovative outcomes, transfer knowledge, and develop client self-reliance.

Executive Support, Programme Delivery, Asset Advisory Services, Business Continuity, Engineering, Supply Chain Management, Risk Management, Enterprise Systems, Information Security

Expertise Domains

Learning & Development (L&D)	Systems Approach to Defence Learning (SADL); needs analysis, doctrine & training courseware development, training delivery; training validation; training devices & simulation needs analysis.
Capability Development	Fundamental Input to Capability (FIC) analysis; feasibility studies; research & development (R&D); Operational Concept Documents (OCD); options analysis; business cases; project proposals; academic papers; workforce design; grant applications; interagency collaboration; stakeholder management; acquisition/procurement strategy; service introduction (IIS); Test & Evaluation (T&E)
Intelligence Surveillance & Reconnaissance (ISR)	Crewed and uncrewed ISR systems, including space, ground, sea, uncrewed air vehicle (UAV) / remotely piloted aircraft systems (RPAS) or drones for Defence and other government agencies.
Land Combat and Amphibious Systems	Land mobility vehicle and watercraft acquisition; soldier systems project management.
Maritime Operations	Project Services (Safety, Scheduling, Project Coordination), L&D, ship crew (all trades) & support role training, individual & collective training design & delivery, ILS management training
Air & Sea Lift	Integrated sea/land/aerospace capability development, operational concepts; international logistics.
Integrated Logistic Support (ILS)	ASDEFCON document suites, ILS Analysis (Task Analysis, Task Resource, Task Procedures and Task Personnel Competency Reports) ILS Planning, Integrated Support Plans.
Asset Management	Strategic Asset Management Plan (SAMP) & Asset Management Plan (AMP) development, implementation and optimisation. Systems Engineering. Information Systems.

Key Customers

Academic Institutions	Shipbuilders and deep sea
HR & Recruitment Businesses	Asset Management & Logistics Providers
Government Departments	Defence Prime Systems Integrators
Resources Sector	Defence infrastructure contractors

Key Markets

Aerospace	Emergency Services
Defence	Green Energy
Resources	Space
Cyber Security	SME



Discriminators

- Veteran experience in Air, Land, Sea, Estate & Cyber.
- ISO55001, 9001, 27001, 31000 series practitioners.
- Diversity-enabled (gender, age, language, culture, civilians, veterans).
- Inter-sector knowledge transfer specialists (defence, resources, emergency services, aviation, science).
- Diverse industry client base: Defence Prime Systems Integrators (PSI), Emergency Services, Resources, Construction, Public Infrastructure, Technology.
- Extensive trusted supplier base and partner network in each industry sector with a strong performance history: on schedule, on budget, to specification.
- International engagements.
- Indigenous / Aboriginal capability development.
- Certificate IV Trainer and Assessor.
- Employees with Defence Security Clearance Levels of Baseline, NV1, NV2 and PV.

Approvals & Awards

- ISO 9001 and ISO/IEC 27001 certified systems
- DISP Member (Level 3)
- Microsoft Partner

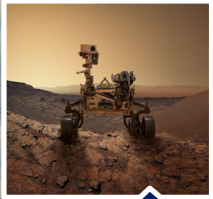
Australian Remote Operations for Space and Earth AROSE



Web



Email



Robotics and Automation



Advanced Analytics and HPC



Human-Systems Integration

Mission Control and Operations

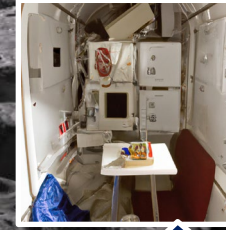
In-Situ Experiments

Natural Science & Engineering Studies



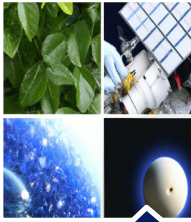
Project Management

Remote Sensing

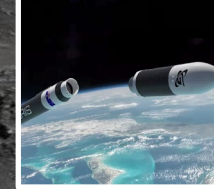
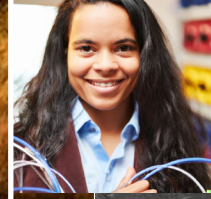


Systems Engineering

Rocket and Launch



Satellites



A Member-Driven, Not-For-Profit Consortium supported by



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QUANTUM
TECHNOLOGY EXCHANGE

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