



2022/23

Capability Statement

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Contents

Introduction

- 3** About Us
- 4** Company Data
- 6** Recognised Skills
- 6** Capability
- 7** Point of Difference

Our Impact

- 9** Raise
- 10** Train
- 12** Sustain

Our Portfolio

- 14** Land
- 15** Maritime
- 16** Aerospace
- 17** Joint
- 18** Software

About Us

Specialised engineering, technical support, project management and consultancy to Defence and industry.

Ascent Professional Services is a wholly Australian, Veteran owned company that specialises in support to Defence and related industries.

Our highly experienced workforce, comprising of nearly 50% veterans, has significant experience in a range of logistics engineering specialisations, management consultancy, research and development (R&D), testing and evaluation (T&E), and certification across all areas of Defence with a specialisation in Guided Weapons and Explosive Ordnance (GWEO) and Aircraft Structural Integrity (ASI).

Ascent has an extensive network of relationships both domestic and international that allows us to develop innovative and unique solutions to meet our clients' needs. We leverage our knowledge and experience and combine it with specialised subject matter experts in industry and academia to create unique and innovative solutions, where required. Our customers attest that our people are key personnel in their value chain and produce outsized results for their numbers.

Ascent is a selective employer and our personnel have been used to effectively multiply the output capability of supported organisations.

Not content to simply provide professional services, Ascent has expanded beyond people to tools, systems, and processes. Recently we have developed software tools to solve ongoing issues such as Aviation Weight and Balance applications and Corrosion Management. This expansion is continuing into T&E capabilities, and complex Unmanned Aircraft Systems (UAS) certification methodologies. Ascent are leading the way with solving problems that have remained a thorn in the side of progress for the better part of a decade.

Ascent are Academic and Innovation partners with the University of NSW Canberra via their Launch UNSW Innovation Hub and the University of Adelaide, as well as the Lot Fourteen Innovation precinct.

Ascent is a trusted supplier of Professional Services and advice to some of the world's leading Defence Prime Contractors, providing support in delivering capability to the ADF. Ascent maintains offices in Canberra, Melbourne and Adelaide with exceptional quality staff in all major Australian states and territories including QLD, NSW, ACT, VIC, SA, and WA. Ascent is ready to support you as a strategic partner in meeting your requirements.

Company Data

We are:

- ✓ Proudly supporting ADF since 2016
- ✓ 100% Australian and Veteran Owned
- ✓ A Proud Veteran Employer
- ✓ Explosive Ordnance Subject Matter Experts
- ✓ Complex Problem Solvers

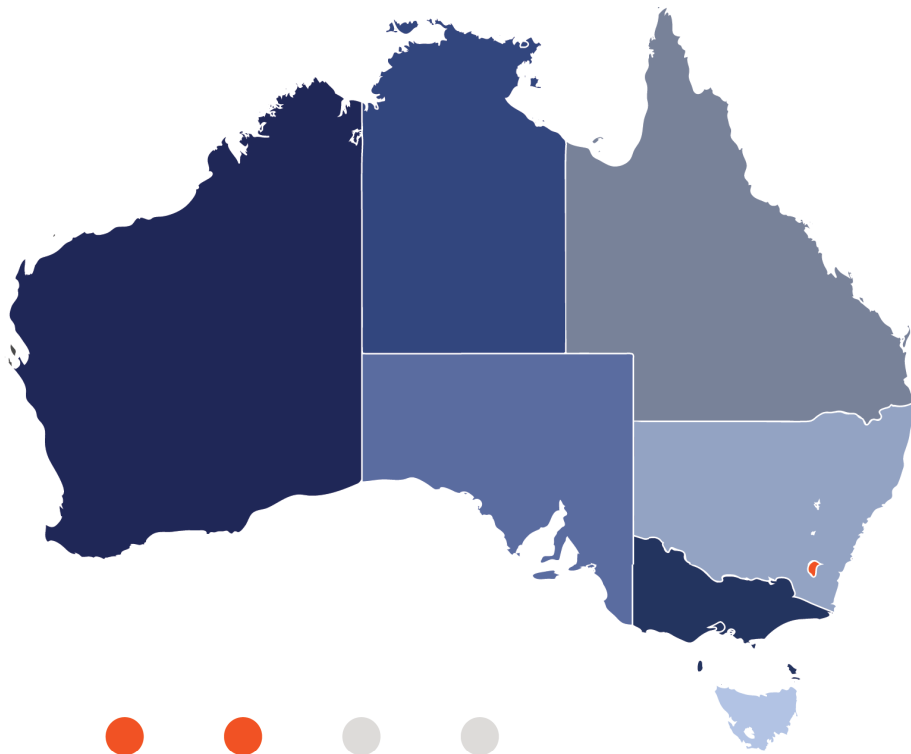
Since inception, Ascent has grown to a team of 50+ highly experienced and regarded engineers and managers, having built a reputation of always putting customers' needs first and delivering to meet or exceed expectations on time and within budget. Ascent is an approved service provider to the ADF, and various primes in the Defence sector.



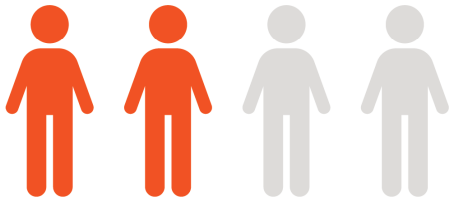
100% Veteran Owned



100% Australian Owned and Operated



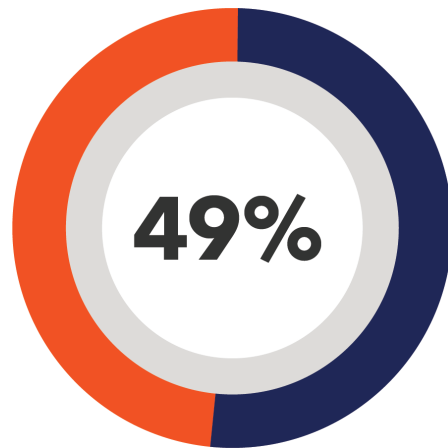
- **24%** work in SA
- **24%** work in NSW
- **17%** work in VIC
- **17%** work in ACT
- **10%** work in QLD
- **8%** work in WA



46% of our workforce are **Veterans**



25% of our workforce are on our **Graduate Program**



49%
of our workforce is **Chartered CPEng**



17% of our workforce are **women**

Our Recognised Skills

Ascent is a DSS Level 4 recognised service provider for:

- ✓ Guided Weapon Engineering
- ✓ Non-Guided Weapon Engineering
- ✓ Aerospace Systems
- ✓ Submarine Systems
- ✓ Systems Integration
- ✓ Mechanical Engineering
- ✓ Systems and Software Engineering
- ✓ Systems Safety Management and Engineering
- ✓ Technical publication authoring

Additionally, we are recognised DSS Level 1 - 3 for the above and a total of 22 skill sets.

Our Capability

Ascent provides people and services to the Australian Defence Industry including Major Service Providers (MSPs), Capability Acquisition Sustainment Group (CASG) and directly to individual Branches of the Department of Defence and other Armed Services.

Ascent is a trusted and sophisticated partner with the ability to tailor teams of people to meet the client objectives.

Ascent possess flexibility to deliver services via:

- ✓ Time & Material
- ✓ Milestone
- ✓ Fixed Level of Effort
- ✓ Collaboration
- ✓ Joint Venture

Our Point of Difference

Subject matter experts in Guided Weapons and Explosive Ordnance acquisition and sustainment.

We are building a future workforce

Ascent are a major employer of STEM Graduates: Raise, Train, Sustain the future workforce.

We have pooled knowledge

Extensive corporate knowledge - engage one team member - get access to the combined knowledge and resources of the entire extensive Ascent team.

We hire great people

Not everyone is good enough to work at Ascent. We scout for highly qualified and experienced personnel possessing relevant post-graduate qualifications, including Masters in Explosive Ordnance Engineering, Gun Systems Design, Engineering Science, Aerospace Engineering, Business and Project Management. Importantly, we source people with personality and a reputation for delivery and achievement.

We put our customers first

Customer focus and satisfaction - Reliable and responsive to customer needs. Your success is our success.

We are accredited

State, Nationally and Internationally Certified and accredited engineers on staff.

We have been the customer

Ascent founders and employees possess military operational experience across many platforms and weapon systems, which we bring to bear in our engineering, technical, and management delivery.

We have been the designer / manufacturer / tester

Understanding how platforms and weapon systems are designed, tested and manufactured gives us a unique perspective.

We have authority

Significant CASG Senior Engineering workforce and have held the highest level of Engineering Authority as Senior Design Engineers, DAARs, Deputy Senior Design Engineers and Chief Engineers across all service domains. Qualified and Experienced personnel, capable to fill Regulator defined positions in Aviation and Explosive Ordnance.

We make a difference to the future ADF

Ascent have embarked on several key projects that will define the future ADF:

- JLC Guided Weapons and Explosive Ordnance - Training Needs Analysis.
- Explosive Ordnance Test and Evaluation collaboration.
- CorroVision - a machine learning tool to predict where corrosion will occur.
- A system of systems approach to assist RAAF CAMOs throughout the ADF.

We understand Defence

As an employer of veterans and active reservists, our people understand Defence and ADF needs. We are distributed Australia wide, with personnel ready to assist in all major capital cities.

CAPABILITY STATEMENT



**Our
Impact**

Building A Future Workforce

Raise

Ascent understands that to grow a future workforce, there is an urgent need to nurture interest in a career path in Defence Industry, and more broadly engineering as a whole.

Since 2016, Ascent has been committed to the development of the Defence Industry's future workforce via the sponsorship of a plethora of academic research projects and adjunct lecturing within local Universities.

The successful outcomes of these projects have not only contributed to the establishment of industry ready graduates, but have also significantly contributed to the growth of an Australia wide Structural Integrity Research Group (SIRG) focussed specifically at improving Defence's Cost of Ownership and Platform Stewardship as a Sovereign Australian Capability.

Ascent is proud to support development of the future workforce via offering penultimate,

final year university students, and graduates the opportunity to work alongside our experienced team of industry leaders and professional consultants, allowing them to be engaged with complex industry projects and nurture their potential.

In commitment and contribution to Defence Innovation and Industry, Ascent is a proud supporter and participant in the South Australia Premier's Defence Industry Scholarship Program to provide industry placements to undergraduates and grow the quality of expertise of graduates emerging from our universities.



Train

With one of Australia's most highly regarded Guided Weapons and Explosive Ordnance Engineering Graduate Program, the A-Team graduates are sure to have an enviable start their early careers.

From day one, and throughout the development program, our graduates play an integral role in exciting and important projects, allowing them to build a strong foundation of skills for their careers as Guided Weapons and Explosive Ordnance Engineers.

Graduates are assigned a senior Ascent mentor and have many opportunities to engage with their cohort, develop their professional network, and collaborate with Australia's top minds and leading industry experts in Explosive Ordnance, Guided Weapons and Aerospace Engineering.

**Not just another graduate program.
Here's what sets us apart:**

- 1.** Mentoring by some of Australia's leading experts over the course of the Graduate Program.
- 2.** Our graduates step into a permanent role with career planning support to guide them through opportunities and off-ramps within Ascent throughout their Graduate Program.
- 3.** Diverse learning opportunities across Australia to work on different projects and engineering fields while they get a feel for their desired career path.
- 4.** An inclusive and collaborative team that supports our graduates' success and celebrates their wins.
- 5.** Generous graduate level compensation with transparent, scaled increases, and generous Professional Development and Training funding and opportunities.
- 6.** Engineers Australia Workforce Credentialing Program, covers our graduates' membership costs and assists them to achieve CPEng status.



“ Since I started on the Ascent Graduate Program I have had the opportunity to study under the guidance of numerous senior engineers at the company and within the ADF.

Over the last 2 years, the graduate program has also provided me opportunities to visit several defence facilities across the country and operate weapon systems employed by the ADF. I have found these hands-on experiences to be invaluable in my development as an engineer, giving me a greater understanding of the gruelling conditions items are designed and built to withstand.

The program has been great for professional and personal relationship building with personnel within the company as well as within ADF. ”

- Ben (Ascent Professional Services Graduate Guided Weapons and Explosive Ordnance Engineer)

Sustain

Ascent provides ongoing personal and professional development to all its employees through attendance at conferences to one-on-one mentoring and guidance.

Here's what working at Ascent looks like.

Experience is valued, regardless of background

We understand that not everyone has a 'piece of paper' that recognises your experience, and not everyone has undertaken tertiary education. Ascent values the unique experience and knowledge that each and every employee brings, and works with each member to ensure they are able to show how these skills and experience can help each of our customers succeed.

Prioritising professional development

We hire smart people, and smart people know you can always become even better. To fuel our teams' drive for innovation and improvement, Ascent backs their goals with generous professional development contributions in their chosen area of study.

Working towards Chartered status

Ascent works in partnership with Engineers Australia to ensure that our people's skills and experience is recognised through personalised assessments to work towards achieving Chartered Status in their respective field(s) and occupational categories.

Competitive pay

We believe in hiring the best people for the job and rewarding them accordingly.

Work that works for everyone

Implementing flexible work arrangements, whether remote work, work from home or simply working flexible hours, means everyone has the chance to bring their A-Game.

Winning company culture

Fostering an autonomous team environment, we value trust and ownership over micromanagement. We celebrate successes and prioritise the wellbeing of our team. Did we mention an in house Ascent microbrewery as well?

Flat structure

Big companies often have hierarchical structures that means visibility of the Division heads, and company Directors can seem out of reach. At Ascent, our Directors are just as invested in, and as close to the customers as many of our people.

Low turn over rates

Ascent has a winning record of very low staff turnover. Our people have created and nurtured a company culture that has made Ascent an employer of choice for graduates, Defence veterans and everyone inbetween.

Australia at your fingertips

Ascent is a distributed company with team members in most major capital city centres in Australia. We work with our people to ensure that they have the ability to pursue opportunities not just in their home location, but in other major centres where their skills will be of use to both current and potential future customers.



Our Portfolio

2022



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Land

Ascent **Land Division** provides specialist engineering and technical support to:

- Explosive Materiel Branch
 - providing nearly two thirds of LEOSPO Senior Engineers (SENGR) across the entire Army Explosive Ordnance Inventory, and
 - supporting the acquisition and sustainment of the Australian Army's inventory with Engineering Authority for all GWEO natures.
- Land Test and Evaluation Agency - Provision of specialised T&E capabilities as Trial Manager for L400 CRV Introduction into Service.
- ISREW - Certification and management of Electronic Countermeasure (ECM) software and hardware, coupled with the Introduction Into Service (IIS) of the Deployable Level 2 Forensics Lab for Counter-Improvised Explosive Device (CIED) exploitation.
- NIOA - Continued support to Nioa as the Explosive Ordnance Engineering partner of choice, forging progressive independent assurance models for the true "turn key" approach to supply of critical new capability. Most recently as the sole L159 EO certification provider.
- Defence Primes - Support through Technical and Engineering assistance to defence Primes, assisting in ensuring rapid IIS of new capability.

Maritime

Ascent **Maritime Division** provides specialist engineering and technical support to:

The Royal Australian Navy (RAN) Guided Weapons and Explosive Ordnance (GWEO) capability of:

- ✓ The Acquisition and Sustainment of RAN GWEO
- ✓ Senior Engineer and Engineering Services across the entire RAN EO inventory

Maritime Armaments Cooperative Programs and AUKUS, including:

- ✓ MK 48 Heavyweight Torpedo
- ✓ Advanced Lightweight Torpedo (ALWT)
- ✓ Future Submarine Program

Ascent has also provided Engineering and Technical support to various Maritime platforms, including:

- ✓ The MH-60R
- ✓ Collins Class Submarine
- ✓ Hobart Class Destroyer
- ✓ Hunter Class Frigate
- ✓ Vertical Launch System Integration

Aerospace

Ascent **Aerospace Division** provides specialist engineering and technical support to:

Aircraft Explosive Ordnance System Program Office (AEOSPO) including:

- ✓ The acquisition and sustainment of RAAF Explosive Ordnance.
- ✓ Senior Engineer and Engineering Services across the RAAF EO inventory.

Air Combat and Electronic Attack System Program Office (ACEASPO) supporting:

- ✓ F/A-18F Super Hornet, Weapons integration, aircraft stores clearance expertise, and platform upgrade programs.

The Australian Space Agency (ASA) and Australian Space industry:

- ✓ In a joint venture with Praxis Aerospace providing engineering expertise, and suitably qualified expert support to Australian Space Agency
- ✓ In a joint venture with Praxis Aerospace providing engineering expertise, and suitably qualified expert support to Launch Licence Applicants in the development of Risk Hazard Assessments (RHAs).

Boeing Defence Australia P-8 program:

- ✓ Providing technical services in direct support for the P-8 Poseidon platform for both life support, armament, weight and balance.
- ✓ Providing Aircraft Structural Integrity (ASI) engineering services.

Ascent **Joint Division** currently provides specialist engineering and technical support to:

- ✓ Aviation component 3D manufacturing certification,
- ✓ Aircraft Structural Integrity,
- ✓ Corrosion monitoring and prevention, and
- ✓ ADF Explosive Ordnance Professionalisation & Training needs analysis.

Their further activities include:

- Ascent has developed software packages that utilise Machine Learning in support of structural integrity and minimising environmental degradation.
- Ascent is part of the team leading the rollout of the EMB Innovator Configuration Management tool, ensuring integrity of the engineering function and configuration management of the Innovator Platform.
- Ascent is a member of the support panel for the Single Disposal Organisations approved to provide services supporting the disposal of explosive ordnance and major ADF systems.
- Consultancy support to Noetic as the Explosive Ordnance (EO) Subject Matter Experts for the Defence EO Professionalisation Framework for the rationalisation and upskilling of EO workforce and training across the entire Australian Defence Organisation (ADO).

Software

Ascent have been providing SME advice to R&D institutions, including The University of Adelaide, around research into corrosion prevention and structural integrity impacts, and has broadened our field into R&D of software tools to help solve complex issues. Two of these software tools are the pre-flight Weight & Balance (W&B) management tool, Advanced Tactical Loading of Aircraft Systems (ATLAS), and a corrosion mitigation and management tool, CorroVision.

ATLAS

The accurate and complete understanding of an aircraft's W&B is critical to maintain the safety and airworthiness during flight. To help combat the issues and risks associated with accurate logging and tracking of the W&B of an aircraft for an operation, Ascent created the pre-flight W&B software ATLAS. The software package was developed from the ground up, making sure to implement the best-practice methodologies published from several of the major aviation regulatory agencies and inputs from operational pilots, whilst making use of the efficiencies available through the Australian Defence regulatory requirements (DASR).

With Ascent's detailed level of understanding of the DASRs, ATLAS can be combined with a W&B data management strategy Ascent has also developed, to deliver a holistic W&B data management system that is compliant with DASRs, and implements best practice Electronic Flight Bag (EFB) W&B program risk mitigations.

CorroVision

Ascent has partnered with an Adelaide-based advanced predictive and prescriptive analytics company to apply machine learning principles to the prevention, mitigation and management of corrosion on various platforms. With the corrosion-related structural integrity knowledge of Ascent, combined with the machine learning experience and skills of our partner organisation, we are creating a software tool that can be used to reduce the unscheduled downtime of platforms through the efficient scheduling of maintenance based upon predicted corrosion severity.

Although initially focussed on aircraft, the software tool can be applied to any platform with sufficient access to key platform and exogenous data. CorroVision will provide data to drive decision making in improving availability and reducing the cost of ownership leading to an increased capability.



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