ALARP SOLUTIONS

System Safety

Governance, Risk & Assurance

Management Advisory

Minimising Risk, Maximising Safety and Performance

ALARP Solutions – Trusted to Deliver

ALARP Solutions specialises in providing systems and safety engineering and governance, risk and assurance solutions to government and industry.

We are committed to supporting organisations implement credible and robust risk and safety management frameworks, policies and practices that improve business outcomes while maximising safety and compliance.

We take the time to understand our clients' needs and problem space, delivering value and developing long term trusted relationships.

Minimising Risk, Maximising Safety and Performance

Our Profile

100% Australian Owned since 2011 with offices in Canberra, Adelaide, and Rockingham

95+% of our business is generated from repeat customers - **we're trusted by our customers to deliver**

70+% of our staff are former serving members of the Australian and UK Defence Force

18 Full time employees with a network of trusted associates offering decades of experience across a range of domains both nationally and internationally

We provide services to Government (Above the Line) and Industry (Below the Line) from our three Business Units

▪ Systems and Safety Engineering
▪ Governance, Risk and Assurance
▪ Business Advisory

We offer flexible contractual arrangements with our team able to be embedded in your organisation or operate independently

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Systems and Safety Engineering Services

ALARP Solutions provides a complete systems and safety engineering service. This is our core business.

Safety Management (Policy and Governance)
SMS development and implementation, Development of Enterprise level safety policies and procedures, Safety governance, Regulatory Compliance, Safety culture improvement…

Safety Management (Strategy and Planning)
Building the 'case for safety', Safety Assurance , Hazard Tracking System development and implementation, Safety Organisation planning, SFARP Determinations, Risk Control Plans…

System Safety Program Management
System Safety Program Planning, Derivation of Safety requirements, Preliminary Hazard Identification and Analysis, Concept Safety Cases, establishment of safety reporting, Safety verification…

Detailed System Safety Engineering and Analysis
Application of advanced Safety Engineering techniques, Supporting System Design (using Hierarchy of Control), Safety Compliance Assessments, Safety Risk Assessments, Safety Case Reports generation, Safety (Accident Causation) Visualisation (Bow-Tie, Fault Tree, Event Tree)…

Systems Engineering
Requirements Engineering, Specification Development, System of Systems Integration, Configuration Management, Test & Evaluation (Verification and Validation), System (functional) Modelling, Reliability Engineering, Human Factors Engineering, Requirements traceability and management…

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Strategic Partner - Risktec: Key facts and figures

We help clients to manage health, safety, security, environmental (HSSE) and business risk in sectors where the impact of loss is high

310+ FTE employees across **16** offices worldwide (WEU, IMEA, APAC, NAM) with technical base in engineering, science and management systems

230+ FTE employees in UK across **7** offices

60+ FTE associates embedded in client organisations

€ **51 million** EUR 2022

Working in **7** diverse market sectors

Delivered over **9,570** projects to over **1,890** clients in over **75** countries

An integral part of TÜV Rheinland since 2014
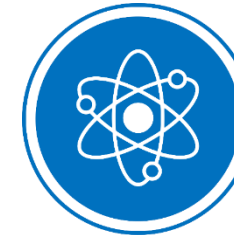
! **We pride ourselves on our strong problem-solving culture and a practical, common sense approach – no two projects are the same!**

Transport

Defence

Nuclear

Clean Energy

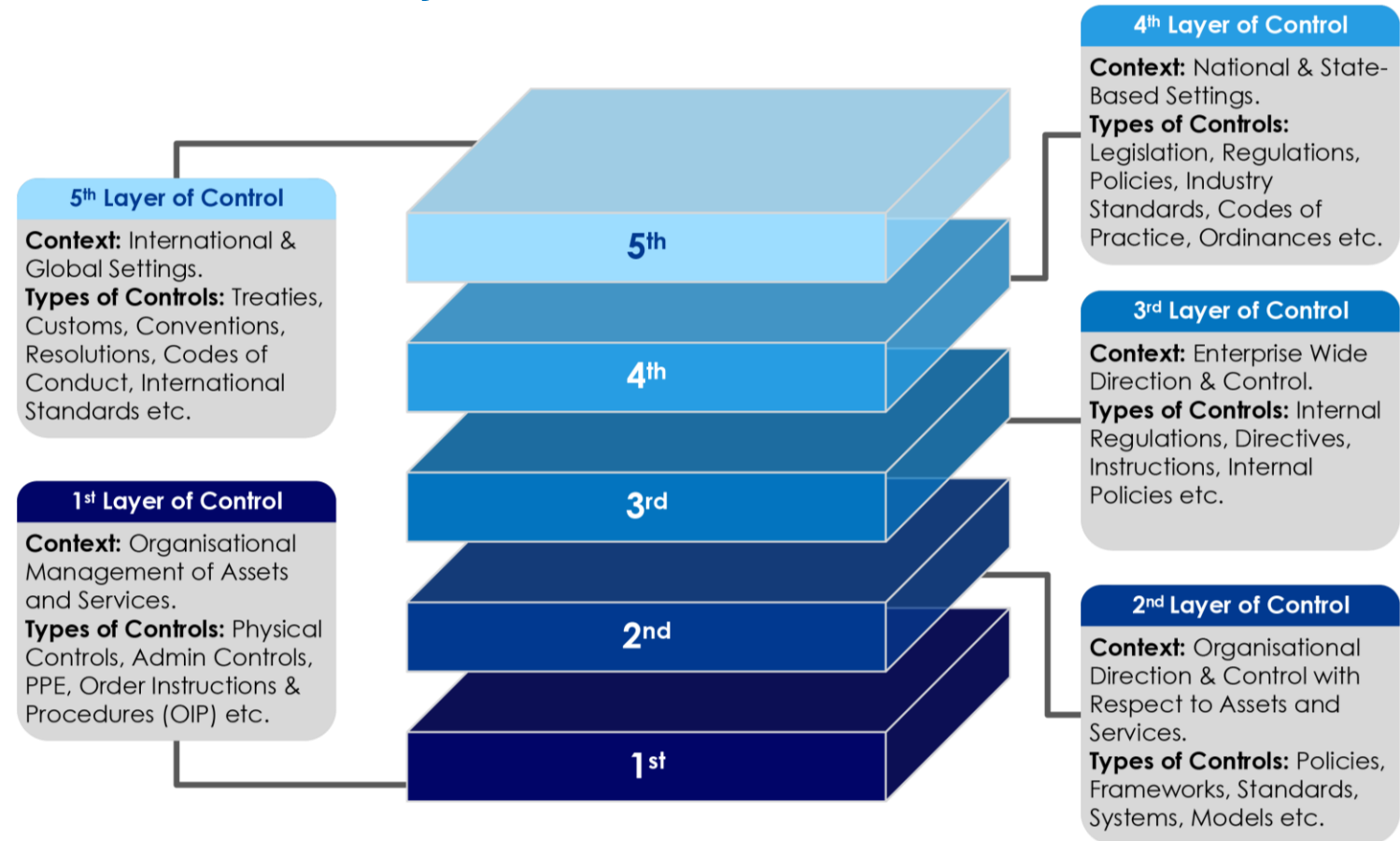Oil, Gas & Chemical

Conventional Power

Financial

Governance, Risk, Assurance and Measurement

Services include**:**
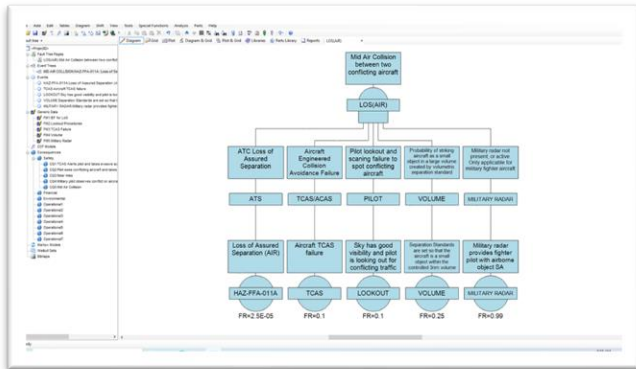
❑ Design and optimisation of governance and assurance systems

❑ Operating Model Design

❑ Change Management and implementation

❑ ISO Management System Design, Implementation and Audit [ISO 9001, 14001, 31000, 55001; OHSAS 18001]

Layers of Control Framework

5th Layer of Control
Context: International & Global Settings.
Types of Controls: Treaties, Customs, Conventions, Resolutions, Codes of Conduct, International Standards etc.

1st Layer of Control
Context: Organisational Management of Assets and Services.
Types of Controls: Physical Controls, Admin Controls, PPE, Order Instructions & Procedures (OIP) etc.

4th Layer of Control
Context: National & State-Based Settings.
Types of Controls: Legislation, Regulations, Policies, Industry Standards, Codes of Practice, Ordinances etc.

3rd Layer of Control
Context: Enterprise Wide Direction & Control.
Types of Controls: Internal Regulations, Directives, Instructions, Internal Policies etc.

2nd Layer of Control
Context: Organisational Direction & Control with Respect to Assets and Services.
Types of Controls: Policies, Frameworks, Standards, Systems, Models etc.

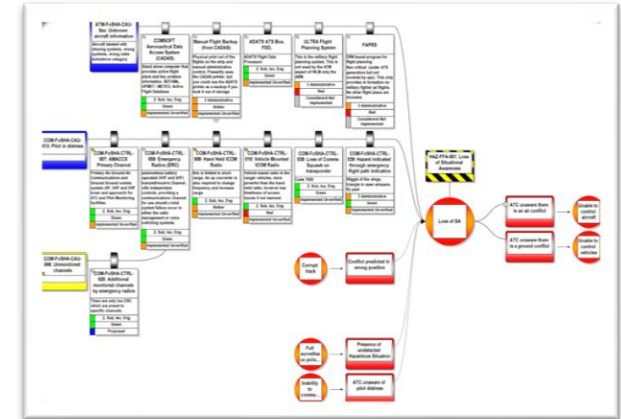Minimising Risk, Maximising Safety and Performance

Specialist Tools – Visualising Safety

ALARP Solutions has invested in a range of risk and safety software tools and has developed its own to support our client needs

Simplifying the Governance of Complex Organisations

ALARP Solutions developed the asce® *EGRAM Plug In* to provide a useful way for organisations to manage the detail and complexity of compliance and assurance requirements, whilst enabling simple, summarised views to support Executive decision-making.

EGRAM™ combines the rigour of the ALARP Solutions approach to managing Enterprise Governance, Risk, Assurance and Measurement with the power of Adelard's Assurance and Safety Case Environment (ASCE) software.

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Business Advisory

Providing specialist advice and support to your organisation, to assist your business through periods of growth and change

Business Leadership

Interim Management Solutions including Accountable Manager / Regulatory post holders and Organisation Change Management specialist support

Business Growth

Business Planning, Strategy, Business Pipeline support, Major Bid development (Shipley process) and Risk and Issues Management

Training and Facilitation

Development and delivery of bespoke Training Packages including Training Needs Analysis to identify organisational requirements, facilitation and mentoring

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Access the Experience

ALARP Solutions' team of experts has extensive staff portfolio experience, with skills and experience gained in Defence and Industry both in Australia and overseas. Our team members are recognised by their peers as experts in their fields, having been responsible for a range of major initiatives and projects prior to and since joining ALARP Solutions. Some of this experience includes:

Executive Leadership Experience
- ❑ Vice President of Global Aviation Company
- ❑ Operations Management - UK Helicopter Training and Support service to Defence (700+ staff across four continents)
- ❑ Program Lead for Submarine Sustainment (220 staff)
- ❑ Program Management in Capability Development
- ❑ Director of Global Risk and Safety Consultancy (150 staff)
- ❑ Multi-national Planning for wartime operations

Safety Case Development
- ❑ Air Traffic Management – Australia and UK
- ❑ Nuclear Power and Weapons
- ❑ Submarines, Ships, Jet fighters, Helicopters, UAVs, Heavy (Armoured) Vehicles,
- ❑ Rail
- ❑ Explosive Ordnance and Weapons Payload Delivery systems
- ❑ Simulators

Engineering Leadership
- ❑ Submarine and Ship design and sustainment
- ❑ Life of Type Extension Programs / Decommissioning Services
- ❑ Engineering Policy and Procedures
- ❑ Delegated Engineering Authority / Warrant Holders
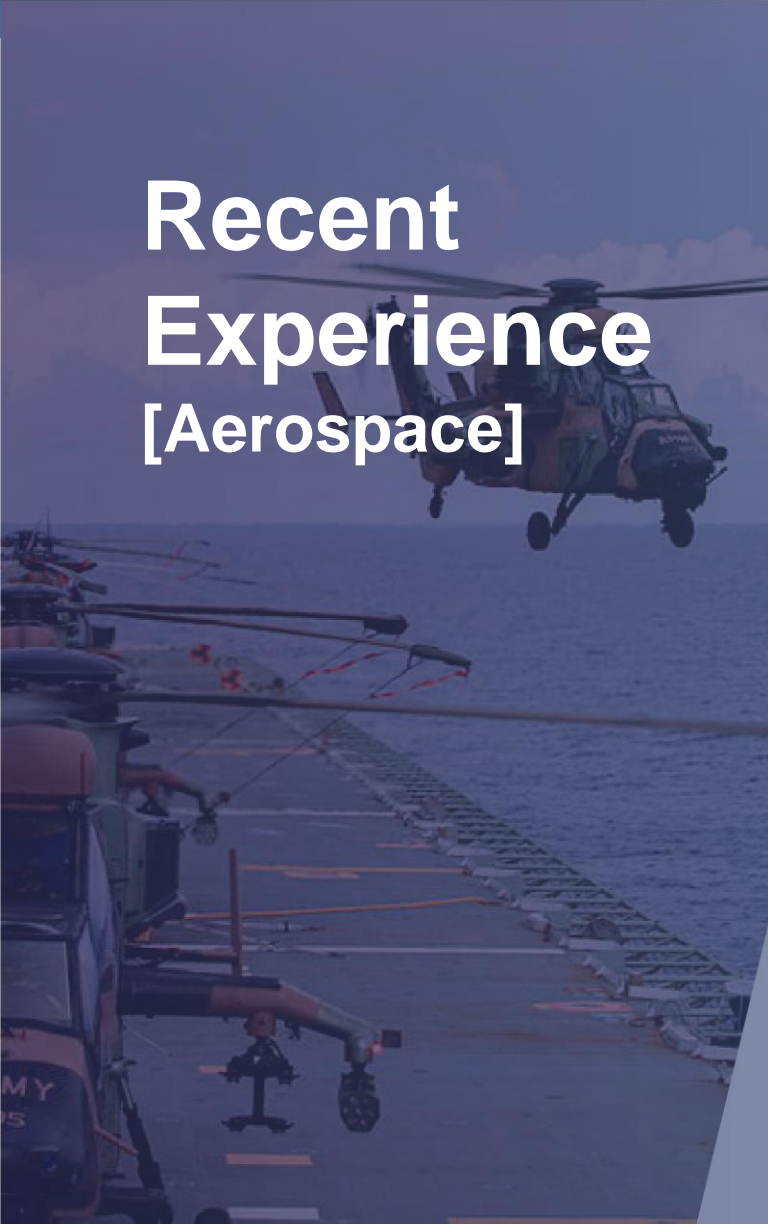
Strategic Regulatory Reform
- ❑ Designed, developed and implemented the Defence Seaworthiness Management System (DSwMS)
- ❑ Designed and developed CASG Integrated Governance Framework and Integrated Assurance Frameworks and Manuals

Speciality Engineering Disciplines
- ❑ Maritime/Platform Engineering
- ❑ Test and Evaluation
- ❑ Condition Based Maintenance
- ❑ Reliability Availability Maintainability Engineering
- ❑ System modelling and Optimisation
- ❑ Explosive Ordnance and Weapons Certification
- ❑ Nuclear Engineering

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Recent Experience [Aerospace]

Client / Program	Services
Airservices Australia ▪ Integrated Drone Surveillance Trial ▪ Sydney Tower Upgrade ▪ Melbourne Aerodrome Lighting Upgrade	System Safety Engineering (Hazard Analysis and Safety Assessments) Safety Program Management Human Factors
Air Force (Surveillance and Response Group) ▪ Safety Cases for Defence ANSP Sites	SoS Hazard Analysis and Capability Safety Cases for all Defence Air Traffic Management sites System Safety training
Daronmont Technologies ▪ Air Traffic Management and Air Battlespace Management Sustainment ▪ Mobile Control & Reporting Centre ▪ Phoenix Transportable Node	System Safety Engineering (Hazard Analysis and Safety Assessments) Safety Program Management
▪ LAND4503 – Armed Reconnaissance Helicopter Replacement Project (Apache)	Program Risk and Issues Management
Surveillance and Control ▪ CAF12 – Air Traffic Management ▪ CAF14 – Air Battlespace Management ▪ CAF23 – Air Force Ranges	Systems (Requirements) Engineering Independence Assurance (Safety) Reviews Safety Management System development System Safety training System Safety support services
British Government ▪ MARSHALL Program (Air Traffic Management)	System Safety services ▪ Independent Safety Assessments ▪ Safety Case Development
BAE Systems Australia ▪ JORN Phase 6	System Safety Engineering services
Raytheon Australia ▪ Australian Defence Air Traffic System (ADATS) ▪ Air Weapons Ranges	System Safety services ▪ Independent Safety Assessments ▪ Safety Case Development ▪ Hazard Log Management
AIR 6000 (CASG) ▪ Joint Strike Fighter (JSF) Program	Program Management ▪ Risk and Issues Management ▪ Industry Engagement ▪ Business Case development for Australian Industry to gain Global Assignments for JSF production and sustainment
Air Force (Defence Aviation Safety Authority) ▪ Defence Aviation Safety Program	System Safety Training

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Recent Experience [Maritime]

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Client / Program	Services
ASC ▪ SEA1450 – CSSM LOTE ▪ Full Cycle Docking and Mid-Cycle Docking ▪ Sustainment Upgrade and Update	System Safety Engineering ▪ Safety Analysis and Hazard Analysis Report generation ▪ Bow-Tie Analysis ▪ Hazard Log creation Systems Engineering ▪ Technical Procurement Specification development ▪ Root Cause Analysis / Technical Investigations and Resolution Contract Management
Collins Submarine Program (CASG) ▪ SEA 1354 Ph 1 – Submarine Escape Rescue and Abandonment System (SERAS) ▪ SEA 1439 5B2 – Communication Upgrade ▪ SEA1439 Ph6 – Collins SONAR Capability Assurance Program	Systems (Requirements) Engineering Systems Safety Program Management Certification and Seaworthiness Support Safety Case Development Test & Evaluation Program Management
Office of the Defence Seaworthiness Regulator (Defence) ▪ Organisational Re-baselining and Optimisation Activity ▪ Independent Seaworthiness Management System Review	Organisational Leadership and Culture Change Regulatory instrument review and update Metrics framework development and implementations Operating Model process optimisation, e.g. regulation development, compliance approaches, assurance, education, and advice, issue resolutions and escalation Optimising assurance approaches for independent review over maritime vessels and supporting capability
Navy Safety and Environment Policy (NavySafE) ▪ Safety and Safety Case policy remediation program ▪ Safety Case Policy Implementation ▪ Environment Case Policy Development	Development of Major Hazardous Facility safety policy as it applies to naval vessels (e.g. Oil Replenishment Tankers) Development of Safety Case policies, guidance and training Material Development of Environment Case policies and guidance Development of Measures Framework
Frigate Group and Warship Asset Management Agreement (WAMA) Alliance ANZAC Class Frigate Safety Case Remediation Program	Development of Operational Safety Assessments for all key high-risk activities and ANZAC Class Capability System Safety Case
Luerssen Australia ▪ Safety Management System for Shipyard Operations ▪ Fast Craft Simulator Training Facility Safety Case	Safety Case Production Safety Management System Development
Defence Industry Suppliers to Collins Class Submarine Life of Type Upgrade ▪ PMB, MTUDDA/Rolls Royce	System Safety Program Management Development of safety and engineering artefacts

Recent Experience
[Industry / Corporate]

Client / Program	Services
Performance Branch (CASG)	Governance and Assurance Services Development of CASG Integrated Governance Framework Development of CASG Integrated Assurance framework Policy Development Compliance Auditing Independent Assurance Reviews Assurance Implementation services BMS Support QMS Support ▪ Audits ▪ Reaccreditation
CASG Corporate (via Jacobs Australia) ▪ Engineering and Technical Function ▪ Quality Management System Directorate	Assurance model development and implementation support ▪ Development of Assurance model ▪ Development of compliance tools Management of CASG QMS Audit Program
METROCONNX (via SHOAL Engineering) Byford Rail Project (WA)	System Safety Services ▪ Functional Safety Human Factors Services ▪ Human Machine Integration
Babcock Australia ▪ Aviation Program	Organisational Change (Reform) Management Business Advisory Services ▪ Business Pipelines generation ▪ Development Services
Hydrix Australia ▪ Defence Program	Business Advisory Services ▪ Business Pipeline generation
Second Tier Defence Suppliers (Australian or International organisations setting up in Australia)	▪ Governance, Risk and Assurance ▪ Business Pipeline Generation
SAFRAN Electronics and Defence Australasia ▪ JIM Compact	System Safety Support ▪ Laser Safety Conformance

ALARP SOLUTIONS

Training and Facilitation

Specialists in the development and delivery of custom-made training packages, facilitated workshops, and mentoring services

Qualified Trainers & Facilitators

- ❑ Highly experienced and qualified Trainers and Facilitators with real life practical experience
- ❑ Customer training / learning needs analysis to develop targeted training
- ❑ Courses developed in accordance with Australia Training Quality Framework principles
- ❑ Comprehensive reference materials

Training Benefits

- ❑ **Relevant –** Bespoke training with applicable case studies and worked examples
- ❑ **Outcome Focused** –Class sizes managed to ensure enhanced interaction and learning experience
- ❑ **Practical** – Apply demonstrated techniques to embed concepts
- ❑ Ongoing services available to support and embed learning outcomes

Courses Available

Systems & Safety Engineering :
- ❑ System Safety for Executives
- ❑ Introduction to System Safety
- ❑ Fundamentals of System Safety
- ❑ Advanced Functional Safety for System Safety Practitioners
- ❑ Application of System Safety for CASG
- ❑ Fundamentals of Engineering Management

Nuclear
- ❑ Introduction to Nuclear-Powered Submarines Education Session

Governance and Assurance:
- ❑ Principles of Governance & Assurance
- ❑ Building Governance & Assurance Frameworks
- ❑ How to make risk-based decisions: Tailoring Risk Management principles and strategies to your organisational

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Where we are

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VALARP
SOLUTIONS

Minimising Risk, Maximising Safety and Performance

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