



Situational Awareness Command & Control Delivery Team

Statement of Work

For

Provision of External Safety Advisor Support

To

Situation Awareness Command & Control (SACC DT)
Programme of Projects

Reference: FTS5/SACC/0005
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Defence Equipment & Support



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1 Introduction

1.1 Issue

- 1.1.1 There is an enduring requirement for External Safety Advisor (ESA) support to the Situational Awareness Command and Control Delivery Team (SACC DT). SACC DT requires advice and support in order to ensure continued safety compliance with quickly changing legislation and regulations.

1.2 Background

- 1.2.1 Ministry of Defence (MOD) Policy requires the provision of military forces, maintained at sufficiently high readiness, to prevent conflict and conduct combat operations in defence of the United Kingdom (UK) and overseas Permanent Joint Operating Bases (PJOB).
- 1.2.2 Within Defence Equipment and Support (DE&S), the SACC DT is responsible for the through life acquisition of a mixed portfolio of Aerospace Battle Management (ABM) equipment and Tactical Data link (TDL) equipment. The ABM systems are characterised as Air Traffic Management (ATM) systems, presenting air safety risks and subject to Military Aviation Authority (MAA) regulatory control. The MAA ATM regulatory environment continues to evolve and the SACC DT must remain agile to ensure enduring compliance.

1.3 Scope Requirement

- 1.3.1 To ensure effective safety risk management and demonstrable compliance with applicable legislation, regulation, standards, policy and best practice, the SACC DT wishes to secure the services of a suitably qualified and experienced ESA to support the SACC DT projects.
- 1.3.2 The primary responsibility of the ESA Contractor is to support the SACC DT Safety Manager on all acquisition safety and environmental protection matters within the SACC DT. Given the complexity and functional air safety significance of all SACC DT projects, in addition to the large amount of safety related matters, the ESA Contractor will also assist in ensuring the safety documentation is both fit for purpose and up to date.
- 1.3.3 The successful ESA contractor shall be required to directly support the SACC DT Safety Manager in the discharge of safety responsibilities. This shall include, but shall not be limited to:
- the provision of technical safety advice and guidance to other stakeholders (including information on technical requirements imposed by applicable legislation, regulation and standards);
 - the development and execution of the SACC DT Safety Management Plan (SMP);
 - the participation in safety engineering and safety risk management activities;
 - the participation in the development of functional and non-functional safety related requirements together with their test, evaluation and verification criteria (requirement engineering);
 - the participation in preferred project solution supplier selection (including technical evaluation of the architectural and design elements of the proposed solutions); and
 - the development of equipment safety cases and equipment safety case reports.
- 1.3.4 In addition to appropriate technical and general safety management qualifications and experience, it shall be essential that the ESA contractor has recent demonstrable experience in the through-life acquisition of ABM and/or military ATM systems within the UK legislative, MAA regulatory, Defence

Standard 00-056, 00-972 and DE&S Project Orientated Safety Management System (POSMS) environments.

- 1.3.5 To ensure the integrity of the SACC DT safety programme, the ESS contractor must be independent of the SACC DT Independent Safety Auditor.
- 1.3.6 The purpose of this Statement of Work (SOW) is to detail the scope and context of the Safety activities to be undertaken by the ESA for SACC DT projects across the CADMID/T lifecycles – whether they are in the Concept, Assessment, Demonstration, Manufacture/Migration, In-Service or Disposal/Termination Phases. This document also states the requirements regarding the Contractor's responsibilities during the period of the contract.
- 1.3.7 The SOW is divided into a Core provision and an Options provision of which there are 4: A, B, C and D. Both provisions are sub-divided into a number of Work Packages across the 2 year period. Option Provisions A, B, C and D are indicative only and can be further subdivided by the Authority should this be required as per the Contractual Terms and Conditions.
- 1.3.8 At the time of writing, the Core provision is funded, whereas none of the Options provision are.

2 Suitably Qualified and Experienced Personal Criteria (SQEP)

2.1 Essential General SQEP Criteria

2.1.1 Each member of the SACC DT ESA contractor team who interfaces directly with the SACC DT Safety Manager or with any other Authority stakeholder shall be:

- Qualified to at least BEng (or equivalent) level, preferably to MSc level, in a relevant discipline and be a chartered or incorporated member of a relevant chartered institution;
- A Safety Practitioner with relevant experience in a safety critical or safety related environment; and
- Named and accepted by the SACC DT Safety Manager and recorded in the contract, with the Lead Advisor clearly specified.

2.2 Essential Contextual SQEP Criteria

2.2.1 Each member of the SACC DT ESA contractor team shall have relevant previous experience in the following legislation.

- Health and Safety at Work etc. Act 1974 (Elizabeth II 1974. Chapter 37).
- The Management of Health and Safety at Work Regulations 1999 (SI 1999 No 3242).
- Provision and Use of Work Equipment Regulations 1998 (SI 1998 No 2306).
- The Manual Handling Operations Regulations 1992 (SI 1992 No 2793).
- Electricity at Work Regulations 1989 (SI 1989 No 635).
- Control of Substances Hazardous to Health Regulations 2002 (COSHH) (SI 2002 No 2677).
- The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716)
- The Control of Noise at Work Regulations 2005 (SI 2005 No 1643).
- The Control of Vibration at Work Regulations 2005 (SI 2005 No 1093).
- BS7671 Requirements for Electrical Installations (IET Wiring Regulations 17th Edn) 2008 (as amended in 2011).
- The Low Voltage Directive (LVD) (LVD 2014/35/EU).
- The Health and Safety (Display Screen Equipment) Regulations 1992 (SI 1992 No 2792).
- The Electromagnetic Compatibility (EMC) Directive (2014/30/EU).
- The Plugs and Sockets etc. (Safety) Regulations 1994 (SI 1994 No 1768).
- The REACH (Registration, Evaluation, Authorisation and restriction of Chemicals) Enforcement Regulations 2008 (SI 2008 No 2852).
- The REACH (Registration, Evaluation, Authorisation and restriction of Chemicals) Enforcement Regulations 2008 (SI 2008 No 2852).
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013 (SI 2013 No 1471).
- Consumer Protection Act 1987.

2.3 Defence Standards

- Defence Standard (Def Stan) 00-055, Requirements for Safety of Programmable Elements in Defence Systems, Issue 4 dated 29 April 2016.
- Def Stan 00-056, Safety Management Requirements for Defence Systems, Issue 7 dated 28 February 2017
- Def Stan 00-251, Human Factors Integration for Defence Systems, Issue 1 dated 5 February 2016;

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- Def Stan 00-972, Military Air Traffic Services Equipment Safety and Performance Standards (Aerodrome, Terminal and Naval Air Traffic Services), dated 8 October 2015.

2.4 Air Traffic Management Approved Organisation Scheme

- RA1027 – ATM equipment organizations responsibilities;
- RA3100 to 3108 – ATM equipment Approved Organization Scheme (AAOS).

2.5 MAA RA Compliance

- RA3120 – Air Traffic Management (ATM) equipment standards;
- RA3130 - ATM equipment safety management;
- RA3132 - ATM equipment safety cases;
- RA3134 - ATM equipment Release into Service Process (RiSP);
- RA3140 – ATM equipment end-to-end safety.

2.6 Domain Compliance

- The MAA Regulatory Publications (MRPs)- Air;
- DSA02.DLSR.LSSR and DSA03.DLSR.LSSR (Formerly JSP454- Land).
- Defence Maritime Regulation DSA02-DMR-MOD Shipping Regulations. -Sea

2.7 Supporting Authority Compliance

- Joint Services Publication (JSP) 375, Health and Safety Handbook;
- JSP 480, Manual of Regulations for Installation of Communication & Information Systems;
- JSP 815, Defence Health, Safety and Environmental Protection;
- JSP 912, Human factors Integration for Defence Systems;
- DE&S Acquisition Safety and Environmental Management Systems (ASEMS);
- ASACS Operational Safety Case Report (SCR), Issue 8 dated 17 July 2015;
- AP 600, RAF Information and Command Information System (CIS) Policy.

2.8 Desirable Experience

- Project Orientated Safety Management System (POSMS);
- Cassandra/eCassandra.
- Experience in the 'role, operating environment and users' of the SACC DT's ABM portfolio (or similar), and ABM/ATM air traffic control operations.
- The UKASACS environment and its Safety Management System;
- The Falkland Islands Air Defence Ground Environment (FIADGE) environment;

3 Task Deliverables

3.1.1 Please refer to the Work Activity and Work Packages below. The formats for the deliverables for all tasks are to be agreed with the SACC DT Safety Manager.

Core						
Task	Activity Description	Output/Deliverables	Duration	Core Requirement	Notes	Acceptance Criteria
1	Attend SACC DT Safety and Environmental Management Committees (SEMCs).	These meetings will be organised quarterly (4 per year) as per the SACC DT ASEMS. Attendance at, and contribution to, SEMC meetings including the review of minutes and responses to actions, as well as progress reporting.	For the duration of the contract.	Over the two years there is a requirement for: - Up to 8x SEMCs. These will be evenly split between the two years of the contract.	This work package includes time for the preparation, attendance, carrying out of any actions generated and progress reporting, as well as providing minutes within 10 working days. It is assumed 50% of meetings to be held at Abbey Wood, Bristol. Assumed Committee Duration of 0.5 days each	Acceptance by the SACC DT Safety Manager.
2	Attend SACC DT Project Specific Safety Working Groups (SWGs).	These meeting are typically annual (one for each Project). Attendance at, and contribution to, these meetings completing actions such as: 1. Performing secretarial duties. 2. Reviewing Hazard Log tool before the meeting to highlight items for the Agenda. 3. Presenting Hazard Log to the meeting and update the Hazard log tool and track. 4. Completing actions though to resolution with the assigned action owner.	For the duration of the contract.	Over the two years there is a requirement for: - Up to 10x SWGs. In addition to the above the Guardian project has an additional requirement of: - Up to 10x SWGs. These are anticipated to be evenly split between the first and second year of the contract.	This work package includes time for the preparation, attendance and carrying out of any actions generated, as well as providing minutes within 10 working days. It is assumed 50% of meetings to be held at Abbey Wood, Bristol. Assumed Working Group Duration of 0.5 days each.	

3	Attend SACC DT Project Safety Committees (PSC).	Attendance at, and contribution to, these meetings completing actions such as: 1. Providing advice and guidance to other holders of safety responsibilities and ensuring effective co-ordination of safety issues, to allow correct decisions to be made. Direct deliverables include: 2. Performing secretarial duties. 3. Providing advice on resolving Actions generated.	For the duration of the contract.	Over the two years there is a requirement for: - Up to 4x PSCs. In addition to the above the Guardian project has an additional requirement of: - Up to 8x PSCs. These will be evenly split between the two years of the contract and typically held on a quarterly basis.	This work package includes time for the preparation, attendance and carrying out of any actions generated, as well as providing minutes within 10 working days. It is assumed 50% of meetings to be held at Abbey Wood, Bristol. Assumed Committee Duration of 0.5 days each.	
4	Write/Review/Update Safety and Environmental Management Plans (SEMPs).	Review and update (if required) the current SEMPS and write any SEMPs for projects early in the lifecycle. This shall verify that each SEMP is comprehensive, correct, compliant and fit for purpose i.e. sets out a robust and achievable plan of action for any phase the project is at, and may include activities needed to develop the project safety case, as required.	For the duration of the contract.	Over the two years there is a requirement for: - Up to 15x reviews of current SEMPs; - Up to 5x updates of current SEMPs; and These will be evenly split between the two years of the contract. - Up to 2x authorship of new SEMPs for projects early in the project lifecycle. These are anticipated to occur within the first year of the contract.		

5	Write/Review/Update Safety Cases (Parts 1-4).	Review and update (if required) the safety cases, part one through to four.¹ All Projects require a complete part one to three, with annual reviews. A change in use or function of the equipment also constitutes an update of safety documentation. This is normally limited to the Safety Case part three but sometimes effects other parts. A Safety Case part four is only required if the project/equipment is required to go through the RiSE process.	For the duration of the contract.	This is anticipated to include: - Up to 18x Safety Case Reviews; - Up to 4x Safety Case Writes; And - Up to 14x Safety Case Updates. In addition to the above the Guardian project, as a larger and more complex project, has an additional requirement of: - Up to 8x Safety Case Reviews; - Up to 4x Safety Case Writes; And - Up to 6x Safety Case Updates. These will be evenly split between the two years of the contract.	Much of the Current safety documentation in the team is in need of an update and review, therefore a large amount of small reviews and uplifts will be required.	
6	Write Safety Statement of Work.	Write safety statements of work to define safety activities that need to be carried out during the lifecycle phases of a project to ensure compliance with all relevant legislation and regulation.	For the duration of the contract.	This is anticipated to include: - Up to 2x Safety Statements of Writes.		

¹ A Review or Update of Each Safety Case Part shall constitute 1x Safety Case Review or Update i.e. If Project X requires Safety Case Parts 1 and 3 reviewing, this would constitute 2x Safety Case Reviews.

				These are anticipated to occur within the first year of the contract.		
7	ITT/ITN Proposal Review and Recommendation.	Review Safety and Environment Plans etc. from Industry bid proposals. Specific deliverables are: 1. Bid marking (if competition). 2. Negotiation Lines to Take (if single source). 3. Providing a list of Safety Related Clarification Questions (applies to both single source and competition).	For the duration of the contract.	This is anticipated to include: - Up to 2x ITT/ITN Reviews. These are anticipated to occur within the first year of the contract.		
8	Guardian Work. Including review and input into HFI development documentation and process.	Attend workshops on HFI development including documentation review / input. Attend and provide safety SME support to HFI WG Provide Safety support and review of documentation in support of CDR. Provide Review of RiSE documentation to support the Release into Service Process Attend meetings with MAA & RTSA to support RiSE process.	For the duration of the contract.	Up to 3x attendance to HFI workshops in IBM Hursley. Including review and input into HFI development documentation and process. Up to 8x attendance of HFI working groups CDR planned for mid-Sep 18 with documentation for review supplied 4 weeks in advance of meeting.	Workshops 2 days in duration, Location Winchester. Working Group 1 day duration. Location Winchester. CDR documentation will include the following documents²: - Preliminary Hazard Analysis; - Environmental Safety Case;	Acceptance by the SACC DT Project Manager.

² The CDR will also include the review of a SEMP and Safety Case Part 2, though note these documents have been contained and accounted for in the separate Tasks 4 & 5 above, respectively.

				Up to 3x Review of Release Into Service Exposition (RiSE) documentation to support the Release into Service Process. Up to 3x Meeting attendance with MAA & RTSA to support RiSE process.	- Environmental Screening Study; and - Environmental Impact Assessment. CDR is planned to be a 5 day meeting at IBM in Hursley, Winchester. Attendance for the full duration of the meeting will be required. The SME would be expected to represent the Authority and raise questions/issues on the presented information as required during the meeting. If required, the SME would document the issues identified for presentation to the Authority. The Environmental documents are typically relatively short. Large document - including review of Data Pack. Meeting 1 day in duration. Location High Wycombe or Boulmer.	
9	Submit to SACC DT Monthly Work In-Progress Certificate (that covers all work under tasks 1-8 of this SOW (template supplied by SACC DT)).	Confirm number of Core & Option tasks called off by the Authority to date, progress of tasks to date and completion percentages against this Statement of Work. Certificate should also detail number of remaining deliverables under each Task for both Core & Option Deliverables.	For the duration of the Contract.	The Work In-Progress Certificate is to be provided to the SACC DT Project Manager. The required format of the Work In-Progress Certificate is a Microsoft Office Excel 2013.	Submission via email to the PM named in TOF Schedule 1 (DEFFORM 111).	Acceptance by the SACC DT Project Manager.

Options									
Task	Activity Description	Output/Deliverables	Duration	Option A Requirement	Option B Requirement	Option C Requirement	Option D Requirement	Notes	Acceptance Criteria
1	Attend SACC DT Safety and Environmental Management Committees (SEMCs).	As per the SACC DT ASEMS. Attendance at, and contribution to, SEMC meetings including the review of minutes and responses to actions.	For the duration of the contract.	Over the two years there is a requirement for: - Up to 2x SEMC's.	Over the two years there is a requirement for: - Up to 2x SEMC's.	Over the two years there is a requirement for: - Up to 2x SEMC's.	Over the two years there is a requirement for: - Up to 2x SEMC's.	This work package includes time for the preparation, attendance, carrying out of any actions generated and progress reporting, as well as providing minutes within 10 working days. It is assumed 50% of meetings to be held at Abbey Wood, Bristol. Assumed Committee Duration of 0.5 days each.	Acceptance by the SACC DT Safety Manager.
2	Attend SACC DT Project Specific Safety Working Groups (SWGs).	These meeting are typically annual (one for each Project) Attendance at, and contribution to, these meetings completing actions such as: 1. Performing secretarial duties. 2. Reviewing Hazard Log tool before the meeting to highlight items for the Agenda. 3. Presenting Hazard Log to the meeting and update the Hazard log tool and track.	For the duration of the contract.	Over the two years there is a requirement for: - Up to 5x SWGs.	Over the two years there is a requirement for: - Up to 5x SWGs.	Over the two years there is a requirement for: - Up to 5x SWGs.	Over the two years there is a requirement for: - Up to 4x SWGs.	This work package includes time for the preparation, attendance and carrying out of any actions generated, as well as providing minutes within 10 working days. It is assumed 50% of meetings to be held at Abbey Wood, Bristol. Assumed Working Group Duration of 0.5 days each.	

Options									
Task	Activity Description	Output/Deliverables	Duration	Option A Requirement	Option B Requirement	Option C Requirement	Option D Requirement	Notes	Acceptance Criteria
		4. Completing actions through to resolution with the assigned action owner.							
3	Attend SACC DT Project Safety Committees (PSC).	Attendance at, and contribution to, these meetings completing actions such as: 1. Providing advice and guidance to other holders of safety responsibilities and ensuring effective co-ordination of safety issues, to allow correct decisions to be made. Direct deliverables include: 2. Performing secretarial duties. 3. Providing advice on resolving Actions generated.	For the duration of the contract.	Over the two years there is a requirement for: - Up to 4x PSCs.	n/a	n/a	n/a	This work package includes time for the preparation, attendance and carrying out of any actions generated, as well as providing minutes within 10 working days. It is assumed 50% of meetings to be held at Abbey Wood, Bristol. Assumed Committee Duration of 0.5 days each.	
4	Write/Review/Update Safety and Environmental Management Plans (SEMPs)	Review and update (if required) the current SEMPS and write any SEMPS for projects early in the lifecycle. This shall verify that each SEMP is comprehensive, correct, compliant and fit for purpose i.e. sets out a robust and achievable plan of action for any phase the project is at, and may include activities needed to develop the project safety case, as required.	For the duration of the contract.	Over the two years there is a requirement for: - Up to 3x reviews of current SEMPS; - Up to 2x updates of current SEMPS; - Up to 1x authorship	Over the two years there is a requirement for: - Up to 3x reviews of current SEMPS; - Up to 2x updates of current SEMPS; - Up to 1x authorship	Over the two years there is a requirement for: - Up to 2x reviews of current SEMPS; - Up to 1x updates of current SEMPS;	Over the two years there is a requirement for: - Up to 2x reviews of current SEMPS; - Up to 1x updates of current SEMPS;		

Options									
Task	Activity Description	Output/Deliverables	Duration	Option A Requirement	Option B Requirement	Option C Requirement	Option D Requirement	Notes	Acceptance Criteria
				of new SEMP's for projects early in the project lifecycle.	of new SEMP's for projects early in the project lifecycle.				
5	Write/Review/Update Safety Cases (Parts 1-4)	Review and update (if required) the safety cases, part one through to four. All Projects require a complete part one to three, with annual reviews. A change in use or function of the equipment also constitutes an update of safety documentation. This is normally limited to the Safety Case part three but sometimes effects other parts. A Safety Case part four is only required if the project/equipment is required to go through the RiSE process.	For the duration of the contract.	- Up to 6x Safety Case Reviews; - Up to 2x Safety Case Writes; And - Up to 4x Safety Case Updates.	- Up to 5x Safety Case Reviews; - Up to 1x Safety Case Writes; And - Up to 4x Safety Case Updates.	- Up to 5x Safety Case Reviews; - Up to 1x Safety Case Writes; And - Up to 3x Safety Case Updates.	- Up to 5x Safety Case Reviews; - Up to 1x Safety Case Writes; And - Up to 3x Safety Case Updates.	Much of the Current safety documentation in the team is in need of an update and review, therefore a large amount of small reviews and uplifts will be required.	
6	Write Safety Statement of Work.	Write safety statements of work to define safety activities that need to be carried out during the lifecycle phases of a project to ensure compliance with all relevant legislation and regulation.	For the duration of the contract.	This is anticipated to include: - Up to 1x Safety Statements of Writes.	This is anticipated to include: - Up to 1x Safety Statements of Writes.	This is anticipated to include: - Up to 1x Safety Statements of Writes.	n/a		
7	ITT/ITN Proposal Review and Recommendation.	Review Safety and Environment Plans etc. from Industry bid proposals. Specific deliverables are:	For the duration of the contract.	This is anticipated to include:					

Options									
Task	Activity Description	Output/Deliverables	Duration	Option A Requirement	Option B Requirement	Option C Requirement	Option D Requirement	Notes	Acceptance Criteria
		1. Bid marking (if competition). 2. Negotiation Lines to Take (if single source). 3. Providing a list of Safety Related Clarification Questions (applies to both single source and competition).		- Up to 1x ITT/ITN Reviews.					
8	Additional Guardian Work.	Attend workshops on HFI development including documentation review and input. Attend and provide safety SME support to HFIWG Provide Review of RiSE documentation to support the Release into Service Process Attend meetings with MAA & RTSA to support RiSE process. Attend meetings for the purposes of integration with other MOD platfroms	For the duration of the contract.	This is anticipated to include: - Up to 1x attendance to HFI workshop in IBM Hursley - Up to 1x HFI working groups, typically held quarterly. - Up to 1x review of Draft RiSE pack - Up to 1x Meeting attendance with MAA/RTSA to support RiSE process.	This is anticipated to include: - Up to 1x attendance to HFI workshop in IBM Hursley - Up to 1x HFI working groups, typically held quarterly. - Up to 1x review of Draft RiSE pack - Up to 1x Meeting attendance with MAA/RTSA to support RiSE process.	This is anticipated to include: - Up to 1x attendance to HFI workshop in IBM Hursley - Up to 1x HFI working groups, typically held quarterly. - Up to 1x review of Draft RiSE pack - Up to 1x Meeting attendance with MAA/RTSA to support RiSE process.	This is anticipated to include: - Up to 1x attendance to HFI workshop in IBM Hursley - Up to 1x HFI working groups, typically held quarterly. - Up to 1x review of Draft RiSE pack - Up to 1x Meeting attendance with MAA/RTSA to support RiSE process.	Workshops 2 days in duration. Location Winchester. Working Group 1 day in duration. Location Winchester. Large document-including review of Data Pack. 1 day in duration. Location High Wycombe or Boulmer.	

Options									
Task	Activity Description	Output/Deliverables	Duration	Option A Requirement	Option B Requirement	Option C Requirement	Option D Requirement	Notes	Acceptance Criteria
				- Up to 3x Integration Meeting attendance.	- Up to 3x Integration Meeting attendance.	- Up to 3x Integration Meeting attendance.	- Up to 3x Integration Meeting attendance.	Integration meeting 1 day in duration. Location Abbey Wood, Bristol.	