Part 1

1. Scope

1.1 This Audit Manual has been developed as a stand alone document for the use of ASESG, FSMOs and other stakeholders (see Section 8.15.11), in carrying out external environmental and safety system audits on IPTs and Projects. It specifies the requirements for programming, planning, executing and documenting external Safety and Environmental Management System audits carried out on IPTs and Projects within both the DPA and DLO.

1.2 This document consists of:

Part 1	Sections 1 – 8 inclusive
Part 2	ASEMS audit procedures (accessed electronically)
Part 3	Glossary (Section 9 of POSMS/POEMS)(accessed electronically)
Annex A	Audit programme (accessed electronically)
Annex B	Audit question bank (accessed electronically)

1.3 This manual is owned and maintained by ASESG.

2. References

a. Joint DPA/DLO Safety and Environmental Management Instructions

b. POSMS Manual

c. POEMS Manual

d. ASEMS Audit Procedures consisting of:
   - AAP01a System Audit (Audit Management and Initiation)
   - AAP01b System Audit (Audit Planning)
   - AAP01c System Audit (Audit Conduct)
   - AAP01d System Audit (Audit Reporting and Follow up)
   - AAP04 Non-conformance and Corrective Action

e. JSP 418

f. BS EN ISO 19011:2002 Guidelines for quality and/or environmental managements systems auditing

g. OHSAS 18001:1999 Occupational health and safety management systems - specification

h. BS EN ISO 14001:2004 Environmental management systems. Requirements with guidance for use

3. Audit Objectives

3.1 The prime objective of undertaking external system audits is to provide assurance to CDP, CDL and the functional Safety Boards that Acquisition Safety and Environmental Management specifically within the DPA and DLO complies with MoD Policy and relevant legislation.

3.2 The secondary objectives of undertaking external system audits are to:

- Provide objective evidence and assurance that the IPT's Safety and Environmental Management System(s) are operating in accordance with MoD and applicable safety and environmental legal and non-legal requirements;
- Provide objective evidence that the IPT's Safety and Environmental Management System(s) is in compliance with the requirements of POSMS and POEMS and Functional Safety Joint Service Publications;
- Identify opportunities to improve the Safety and Environmental Management System(s);
- Identify opportunities to improve safety and environmental performance;
- Identify opportunities to raise awareness, provide training and increase competency of safety and environmental issues;
- Recognise and share good practice;
- Inform the Management Review process;
- Inform policy development; and
- Identify opportunities to improve POEMS/POSMS Manuals and functional safety JSPs.

4. Special Requirements

4.1 ASESG-CSAP1 is responsible for managing and co-ordinating all activities related to the organisation and control of the joint DPA/DLO Safety and Environmental Management System audit programme.

4.2 All personnel acting as auditors are expected to be competent to the minimum standards as stated in AAP01a/G/01 Audit Competency Interim Guidance.

4.3 ASESG-CSAP1 will maintain a register of suitably qualified and competent auditors. Audit Teams will be selected from this list and other specialists as required, and will where possible be independent of the specific IPTs/Projects being audited.

5. Audit Programme

5.1 ASESG-CSAP1 will, after consultation with Functional Safety Management Offices, produce and publish a three year audit programme in December of each year which will cover:

Year 1	Detailed audit plan for the next 12 months
Years 2 & 3	Long term forward programme for the following 24 months

5.2 This audit programme which forms Annex A of this manual will be published and updated electronically on the ASEMS website at www.asems.dii.r.mil.uk

5.3 The periodicity of audit for individual IPTs/Projects will be determined by an evaluation process that will consider the following factors:

a. dates of previous external audits
b. results of previous audits
c. the risk factor of the IPT/Project
d. the stage in the CADMID cycle
e. results of Project Review and Assurance
f. progress in implementing POSMS and POEMS
g. domain specific requirements

5.4 Where other stakeholders deem it necessary to undertake an external audit of an IPT or project they are to inform ASESG CSAP1 so that adjustments to the audit programme can be made if appropriate.

6. The Audit

6.1 Once an audit team has been selected and notified by ASESG-CSAP1 the Lead Auditor will be responsible for the detailed planning and conduct of an audit in accordance with ASEMS Audit Procedures AAP01 and AAP04 and Section 8 of this manual and as shown in Fig 6.1 below:

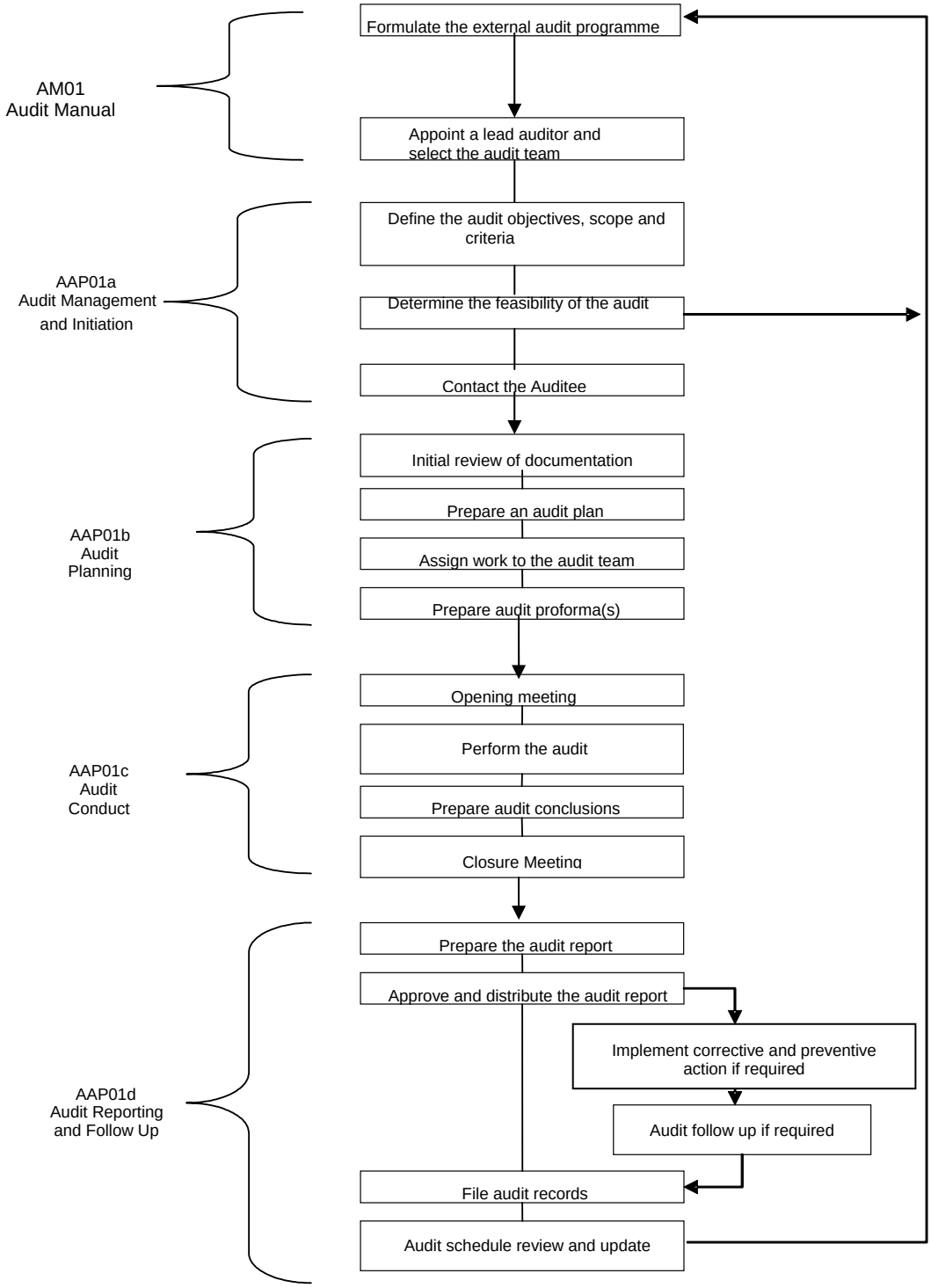


Fig 6.1 The Audit Process

6.2 The audit questions to be used will be selected from a bank of approved questions maintained by ASESG and will cover:

Generic – safety
Generic – environment
Domain specific questions as appropriate for the IPT/Project being audited

6.3 The bank of audit questions that form Annex B of this manual will be published on the ASEMS website at www.asems.dii.r.mil.uk

6.4 It is the Lead Auditor's responsibility to monitor progress of any non-conformances. If it is shown that a follow-up audit is required to do this, it is the Lead Auditor's responsibility to ensure this is done in a timescale agreed with ASESG CSAP1 and that it concentrates on the non-conformances and is not used to widen the original audit scope.

6.5 Lead Auditors are to provide confirmation to ASESG-CSAP1 when audits (including follow up audits) have been conducted so that the audit programme can be updated.

7. Reporting

7.1 On completion of an audit the Lead Auditor is to prepare and issue an Audit Report and Audit Summary Report in accordance with Section 7.1 of AAP01d – Audit Reporting – see also Section 8.15.14 of this manual.

7.2 ASESG will use the content of external Audit Reports as an input to the various Performance Management Reports prepared for Corporate Management Boards in accordance with Joint SEMIs and as shown in Fig 7.1 below.

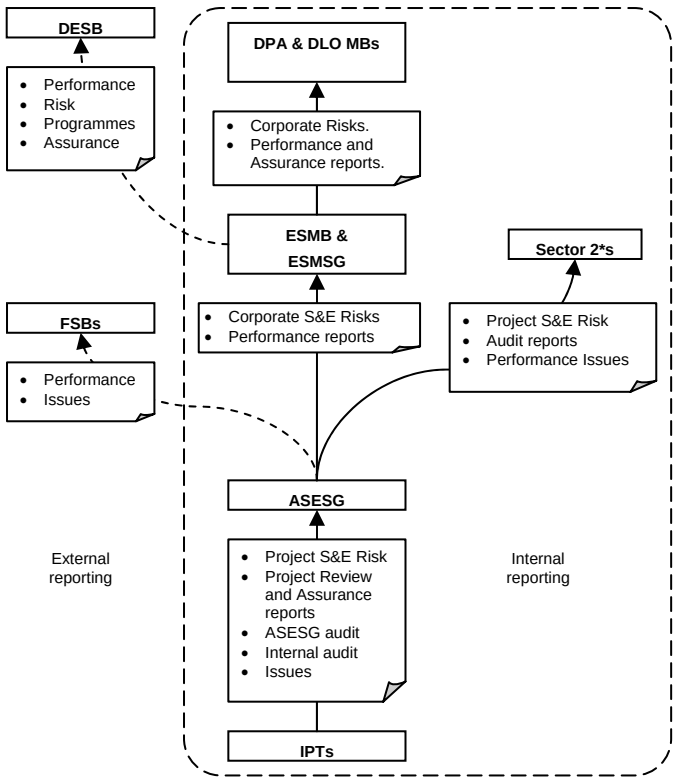


Fig 7.1 Management Reporting chart

8. Audit Process and Procedures

Table 8.1 - ASEMS Audit Procedures

Number	Procedure Type	Procedure Name
AAP01a	Assurance and Audit Procedures	System Audit (Audit Management and Initiation)
AAP01b	Assurance and Audit Procedures	System Audit (Audit Planning)
AAP01c	Assurance and Audit Procedures	System Audit (Audit Conduct)
AAP01d	Assurance and Audit Procedures	System Audit (Audit Reporting and Follow up)
AAP04	Assurance and Audit Procedures	Non-conformance and Corrective Action

8.1 Procedure Structure

8.1.1 For ease of use, the procedures have the same format and structure. The key sections are detailed below in 8.2 – 8.13 inclusive.

8.2 Procedure Title

8.2.1 The title and reference code for the procedures are as follows:

- AAP01 - System Audit;
- AAP04 - Non-conformance and Corrective Action.

8.2.2 The audit procedures are common to both the POEMS and POSMS.

8.3 Showing Conformance

8.3.1 This explains the three ways of showing conformance with the procedure, namely:

- Follow the defined system procedure using the recommended guidance and tools, including allowed variations and options.
- Use an equivalent process and tool set generated elsewhere and document evidence of procedural equivalence.
- Use an equivalent bespoke process and tool set for the project and document evidence of procedural equivalence

8.4 Introduction

8.4.1 This is an overview of the procedure's purpose in the context of the overall management system.

8.5 Procedure Objectives

8.5.1 This section describes what is to be achieved by following and completing the procedures. Normally this section is in the form of a list of the objectives that need to be achieved in order to demonstrate conformance.

8.6 Responsibilities

8.6.1 This section states who will be accountable and responsible for proper completion of the procedure and who will actually carry out the actions within the procedure. In most cases the IPT will be responsible for procedure management while procedure completion could be carried out by a number of different parties as shown in the procedures. However for the purposes of undertaking external environmental and safety management system audits the responsibility will lie with ASESG, FSMOs or other 3rd party auditors as appropriate.

8.7 When

8.7.1 This section indicates when the procedure is to be followed in terms of the SMS or EMS implementation.

8.8 Required Inputs

8.8.1 Most of the procedures require reference to be made to the outputs of previous procedures and information from other sources. This section lists the main reference material that will be needed in order to complete the procedure.

8.9 Required Outputs

8.9.1 This lists the outputs, for example completed forms, compiled information etc. It should be noted, however, that it is acceptable within POSMS and POEMS for an IPT to use alternative methods to those outlined in the procedures providing this meets the same objectives and is endorsed by ASESG.

8.10 Records and Project Documentation

8.10.1 This includes advice on where outputs of the procedures should be kept and recorded (usually in the Safety or Environmental Case, Case Reports, or related registers and logs) and where other project documentation may need to include some or all of the output information.

8.11 Description

8.11.1 This section makes up the bulk of the procedure and describes the steps and stages involved in completing the procedure. It includes advice and guidance on how to complete the procedure and when to use each of the associated forms or tools. It should be remembered that this part of the procedure is for guidance only so it is not therefore mandatory for an IPT to follow it to the letter where they have made suitable and equivalent alternative arrangements. The key point is to achieve the required objectives, outputs and outcomes, and to ensure that alternative approaches are clearly documented and agreed.

8.12 Recommended Tools and Forms

8.12.1 Many of the procedures include tools or forms to assist IPTs to undertake the procedure or to record the information produced. This section lists the forms that may be useful in completing the procedure. This can sometimes include forms associated with other procedures. Note that the use of the forms is not mandatory

(see Required Outputs above) and that any alternative approaches used should be clearly documented and agreed.

8.13 Guidance

8.13.1 This final section provides guidance on other sources of advice. Also included here are some general comments on potential project risk that may arise if the procedure is not completed in an appropriate way or at an appropriate time.

8.14 Procedure Use

8.14.1 All procedures provide recommended guidance and/or forms to help the user to produce the desired output(s). The use of this guidance is not mandatory, as long as suitable alternative methodologies are used which achieve the desired objectives, as defined in the procedure and that are deemed by ASESG to be equivalent.

8.14.2 Table 8.2 overleaf shows a summary of the inputs and outputs associated with each audit procedure.

Table 8.2 – Summary of ASEMS Audit Procedures

Procedure	Input	Output *
AAP01a - System Audit (Audit Management and Initiation)	Environmental and Safety Case(s) including: • Previous audit reports (**Form AAP01d/F/01**); • Record of Management Reviews (**Form AAP03/F/01**); • Record of Monitoring and Measurement (**Form AAP02/F/02**); • Environmental Management Plans (**Form EMP06/F/03**); • Safety Plans (outputs from SMP03) • Non-Conformance and Corrective Actions (**Form AAP04/F/01**); • Register of Stakeholder Requirements (**Form EMP01/F/01** and **SMP01/F/02**) • Register of Standards (**Form EMP01/F/02** and **SMP01/F03**) • List of operational controls (**Form EMP07/F/01** and outputs from SMP08) • Other POEMS outputs. • Audit schedules produced by other parties where these cover auditing all or some of the elements of the SMS and EMS.	• **AAP01a/F/01** - Audit Schedule • **AAP01a/F/02** - Audit Details, Team Composition and Competence Record • **AAP01a/F/03** – Notification of Audit Letter
AAP01b - System Audit (Audit Planning)	• Audit Question Toolset (available from ASESG); • **Form AAP01a/F/01** - Audit Schedule; • **Form AAP01a/F/02** - Audit Details, Team Composition and Competence Record Form; • Other documents relevant to the scope and objective of the audit (i.e. POEMS, POSMS); • IPT safety and environmental management system documents; and • **Form AAP01d/F/01** - Previous Audit Reports	• **Form AAP01b/F/01** - Audit Plan • **Form AAP01b/F/02** - Audit Pro-forma (partly complete)

Procedure	Input	Output *
AAP01c - System Audit (Audit Conduct)	• **Form AAP01b/F/01** - Audit Plan • **Form AAP01b/F/02** - Audit Pro-forma (partly complete) • Relevant IPT documentation; • **Form AAP04/F/01** – Non-conformance, Corrective and Preventive Action Form (If required). • **Form AAP01c/F/01** – Record of Audit Meeting.	• **AAP04/F/01** – Non-conformance and Corrective Action Form • **AAP01b/F/02** - Audit Pro-forma(s) – (Fully complete) • **Form AAP01c/F/01** – Record of Audit Meeting (completed for Opening Meeting); • **Form AAP01c/F/01** – Record of Audit Meeting (completed for Audit Team Meeting(s)); and • **Form AAP01c/F/01** – Record of Audit Meeting (completed for Closing Meeting).
AAP01d - System Audit (Audit Reporting and Follow up)	• **Form AAP01b/F/01** - Audit Plan; • **Form AAP01b/F/02** - Audit Pro-forma(s); • **Form AAP04/F/01** - Non-conformance and Corrective Action Form(s), if relevant (partly complete). • IPT documentation relevant to the audit; • **Form AAP01c/F/01** - Audit meeting records	• **AAP01d/F/01** - Audit Report Template • **AAP01d/F/02** – Audit Report Summary • **AAP04/F/01** - Non-conformance and Corrective Action Record, if relevant – (fully complete)

Procedure	Input	Output *
AAP04 – Non-conformance and Corrective Action	• Results of internal and external audits • Internal and external communications regarding the IPT's safety and environmental management(s), including suggestions for improvement. (See SSP01) • Internal and external communications regarding the equipment's safety and environmental performance, including complaints. (See SSP01) • **AAP02/F/02** – Record of Monitoring Review; and • **Form AAP03/F/01**- Management Review Records.	• **AAP04/F/01** – Non-Conformance and Corrective Action Record

* Or equivalent actions and documentation that ASESG are satisfied achieves the same objectives.

8.15 System Audit Procedures AAP01

System Audit Structure

8.15.1 There are four System Audit procedures as follows:

- AAP01a - Audit Management and Initiation
- AAP01b - Audit Planning
- AAP01c - Audit Conduct
- AAP01d - Audit Reporting and Follow up

8.15.2 The System Audit procedures can be applied to the SMS or EMS at any time during its implementation, it is not necessary for the full system to be in place before planning and carrying out audits.

8.15.3 These procedures have been based on the requirements of ISO 19011, ISO 14001, OHSAS 18001 standards and have been developed in line with other POEMS and POSMS procedures, and the various JSPs that cover system auditing.

8.15.4 The System Audit procedures are not intended to replace the audit sections of JSPs but to align with their requirements.

8.15.5 ASESG should be contacted if further advice or assistance is required on complying with these procedures.

8.15.6 If an IPT already has a project management system or procedures (e.g. ISO 9001) that cover system auditing these may be used in place of these POSMS and POEMS procedures so long as ASESG is satisfied they meet the same objectives.

System Audit Purpose

8.15.7 The system audit procedures have been produced to ensure that the IPT's SMS and EMS are audited throughout the life of the project(s). They specify how system audits should be completed, and how combined safety and environmental management system audits can be completed. The procedures should not be used in lieu of auditor training and therefore do not cover auditing techniques in detail.

System Audit Scope

8.15.8 At the present time POEMS and POSMS are to be used to establish project level EMSs and SMSs by acquisition IPTs within DPA and DLO. All activities that are undertaken or managed by the IPT, and which have a bearing on safety and environmental performance of the capability being acquired, have the potential to come within the scope of the audit procedures.

8.15.9 Activities undertaken by parties other than the IPT, and which are not undertaken under the management responsibility of the IPT are currently outside the scope of these audit procedures, although they may come under other audit regimes.

8.15.10 However information from other audit regimes, for example on issues such as equipment performance, will be of use to the IPT and should be logged through the

POEMS and POSMS communications procedures; and may depending on their nature give rise to non-conformance and corrective action reports within POEMS and POSMS. In addition non-conformance and corrective action identified under the audit regime established by POEMS and POSMS may be need to be communicated to other parties, although the IPT may have no method of formally requiring the corrective action.

System Audit Responsibilities

8.15.11 Although the procedures have been produced primarily for use by IPTs they will also be used by ASESG to carry out audits on the SMS and EMS. In addition, other parties such as those bulleted below may also use these procedures for auditing all or parts of an IPTs SMS and EMS.

- Functional Safety Board Secretariats;
- DS&C;
- Third Parties invited by CDL/CDP;
- Independent Safety Auditors;
- MOD and TLB Internal Audit Functions;
- Equipment system contractor;
- Personnel seconded from another IPT;
- Customer 2;
- SME;
- Environmental and Safety Consultants.

8.15.12 Any third party using these procedures should note that they have primarily been written for use by IPTs and therefore may use terminology specific to IPTs. However, this should not preclude a third party from using the procedures.

8.15.13 Throughout the procedures the term ‘Audit Client’ has been used to describe the group, organisation or individual commissioning an audit as this may be distinct from the party carrying out the audit.

System Audit Reporting

8.15.14 The IPT should refer to its stakeholder forms (EMP01/F/01 and SMP01/F/02) to identify which stakeholders should receive a copy of the Audit Report or Audit Summary Report. The following identifies some of the authorities or organisations that the IPT may decide to forward a copy of Audit Report or Audit Summary Report to various authorities and organisations, for example:

- The delegation chain PM, IPTL, CDP and/or CDL (via ESMB and ESSB), SofS (via DESB);
- Other TLBs through Annual Report to DESB;
- 2* Directors and 1* Deputy Directors;

- Functional Safety Boards and Secretariats;
- Directorate of Performance and Analysis and Defence Audit Committee (through Functional Safety Boards);
- DS&C;
- Stakeholders (Customer 1 and 2, DE, CESOs etc.) through Safety Committees;
- Other Government Departments (HSC, DEFRA, DTI etc.) through MOUs;
- Environment Agency for England and Wales;
- Scottish Environmental Protection Agency;
- Environment and Heritage Service for NI;
- General Public;
- ISAs and other Auditors;
- International Partners.

8.16 Non-Conformance and Corrective Action Procedure - AAP04

8.16.1 The purpose of this procedure is to provide a methodology for the identification, investigation and recording of non-conformances and observations and for the identification and implementation of appropriate corrective and preventive action. This is important as it allows the systems to be continually improved as a result of experience and past performance.

8.16.2 This procedure applies to all the elements of the SMS and EMS regardless of whether these are the responsibility of the IPT or a contractor.

Part 2

Part 2 of this manual consists of the following audit procedures, which are published electronically on the ASEMS website at www.asems.dii.r.mil.uk

AAP01a System Audit (Audit Management and Initiation)
AAP01b System Audit (Audit Planning)
AAP01c System Audit (Audit Conduct)
AAP01d System Audit (Audit Reporting and Follow up)
AAP04 Non-conformance and Corrective Action

Part 3

Part 3 of this manual consists of The Glossary from Section 9 of POSMS/POEMS, which is published electronically on the ASEMS website at www.asems.dii.r.mil.uk

Annex A

Annex A of this manual consists of the audit programme produced by ASESG, which is published electronically on the ASEMS website at www.asems.dii.r.mil.uk

Annex B

Annex B of this manual consists of the audit question set managed by ASESG, which is published electronically on the ASEMS website at www.asems.dii.r.mil.uk

0 SHOWING CONFORMANCE

0.1 Options

0.1.1 There are three options to demonstrate conformance when applying this system procedure:

a. Follow the defined system procedure using the recommended guidance and tools, including allowed variations and options.

b. Use an equivalent process and tool set generated elsewhere and document evidence of procedural equivalence.

c. Use an equivalent bespoke process and tool set for the project and document evidence of procedural equivalence.

1 INTRODUCTION

1.1.1 This procedure is the first in a set of four procedures and deals with initial audit planning activities. This procedure describes how an audit schedule can be developed in order to organise self audits of the IPT's SMS and EMS. The activities covered in this procedure will form the basis of the system audit process so it is important that issues are considered carefully to avoid duplication of effort or gaps in the audit process later on.

1.1.2 The audit schedule must describe the scope and frequency of self audits and set out a timeframe for their completion.

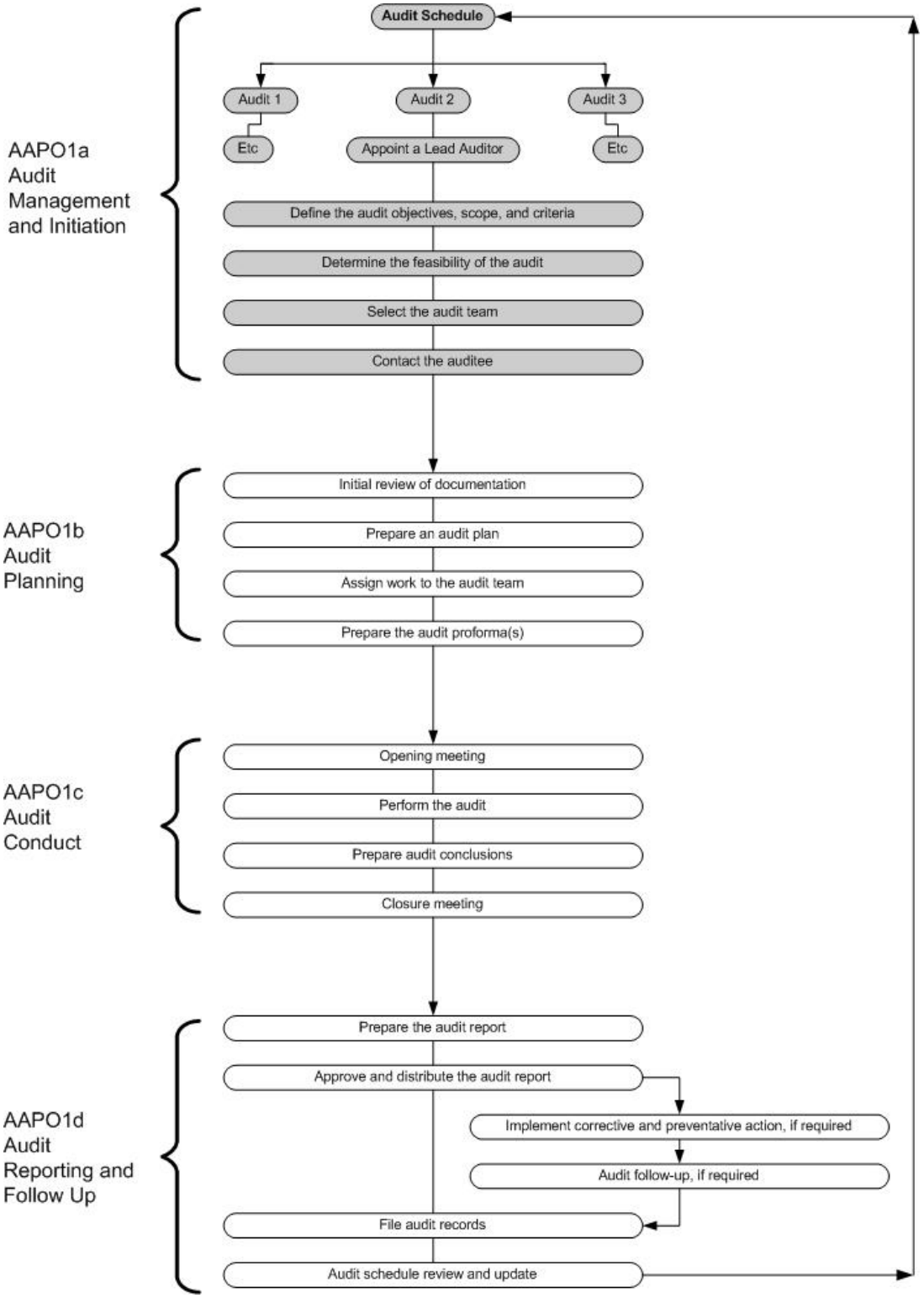
1.1.3 Although this and the companion procedures have been produced primarily for use by and on behalf of IPTs, they may also be used by ASESG to carry out audits on the SMS and EMS. In addition, other parties may also use these procedures for auditing all or parts of an IPT's SMS and EMS such as:

- Functional Safety Board Secretariats;
- DS&C;
- Third Parties invited by CDL/CDP;
- Independent Safety Auditors;
- MOD and TLB Internal Audit Functions;
- Equipment system contractor;
- Personnel seconded from another IPT;
- Customer 2;
- SME;
- Environmental and Safety Consultants.

1.1.4 Any third party using these procedures should note that they have primarily been written for use by IPTs and therefore may use terminology specific to IPTs. However, this should not preclude a third party from using the procedures.

1.1.5 Throughout the procedures the term ‘Audit Client’ has been used to describe the group, organisation or individual commissioning an audit, as this may be distinct from the party carrying out the audit.

Figure 1 Steps within the system audit procedures



2 PROCEDURE OBJECTIVES

2.1.1 The objectives of this procedure are to:

- Produce a plan, for auditing all elements of the IPT's SMS and EMS, that includes details on how and when these audits will take place;
- Ensure that audits are undertaken by appropriately competent auditors; and
- Contact the Auditee and confirm arrangements for undertaking the audit.

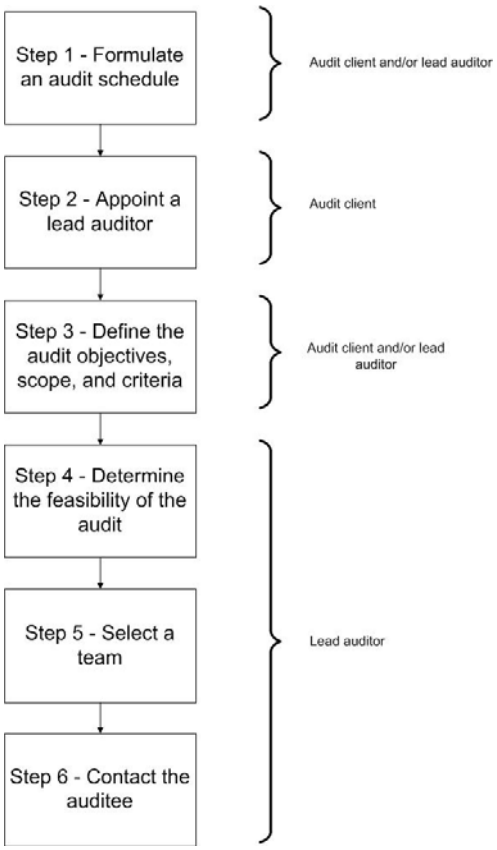
3 RESPONSIBILITIES

3.1 Accountability

3.1.1 The Audit Client is accountable for the completion of this procedure.

3.2 Procedure Management and Procedure Completion

3.2.1 The diagram below shows the steps described in the Description section of this procedure against those parties or individuals that may be responsible for their completion.



3.2.2 Note that where the Lead Auditor has responsibility, this may on particular occasions be delegated to members of the Audit Team.

4 WHEN

4.1.1 This procedure can be applied to the SMS or EMS at any time during its implementation, it is not necessary for the full system to be in place before planning and carrying out audits.

4.1.2 An IPT will be expected to have produced an audit schedule and audited each element of its SMS and EMS before Main Gate. Auditing will continue throughout the life of the project(s).

5 REQUIRED INPUTS

5.1.1 Safety and Environmental Case(s), for example:

- Results of previous audits (**Form AAP01d/F/01**);
- Record of Management Reviews (**Form AAP03/F/01**);
- Record of Monitoring and Measurement (**Form AAP02/F/02**);
- Environmental Management Plans (**Form EMP06/F/03**);
- Safety Management Plans (outputs from SMP03)
- Non-Conformance and Corrective Actions (**Form AAP04/F/01**);
- Register of Stakeholder Requirements (**Form EMP01/F/01** and **SMP01/F/02**)
- Register of Standards (**Form EMP01/F/02** and **SMP01/F03**)
- List of operational controls (**Form EMP07/F/01** and outputs from SMP08)
- Other POSMS & POEMS outputs
- Other POSMS outputs.

5.1.2 Audit schedules produced by other parties where these cover auditing all or some of the elements of the SMS and EMS.

6 REQUIRED OUTPUTS

Form AAP01a/F/01 - Audit Schedule

Form AAP01a/F/02 - Audit Details, Team Composition and Competence Record Form

Form AAP01a/F/03 – Notification of Audit Letter.

OR

Equivalent actions and documentation that ASESG is satisfied achieve the same objectives.

7 DESCRIPTION

7.1 Step 1 – Formulate an audit schedule

Introduction

7.1.1 Note: Where the Audit Client wishes to involve the Lead Auditor in the production of the audit schedule then Step 2 – Appoint Lead Auditor should be completed before this step.

7.1.2 In order to produce an audit schedule the following must be decided:

- What elements of the SMS and EMS must the audits cover (i.e. scope);
- How many audits are necessary;
- How often will these audits be undertaken; and
- When audits are to be undertaken.

7.1.3 In terms of scope the schedule can apply to:

- Individual project level SMS and EMSs; or
- Several project level SMS and EMSs; or
- An IPT level SMS and/or EMS.

7.1.4 The organisation and scope of the audit schedule will depend largely on how much of the SMS and EMS is in place and how these systems are organised within the IPT or project. For example, an IPT may decide to develop separate schedules for the SMS and EMS if the systems are distinct from each other, or combine schedules where elements are shared, similar or connected.

7.1.5 The overall audit schedule should cover all the existing elements of the SMS and EMS regardless of whether these are the responsibility of the IPT or a contractor.

7.1.6 When developing the schedule, consideration should be given to any other planned audits that may cover aspects of safety or environmental management. These other audits may fulfil some or all of the objectives of the audit schedule and may therefore be used as alternatives to avoid duplication of effort.

Audit Scope

7.1.7 Although it is possible to audit the whole SMS or EMS at once, this is generally considered poor practice (unless the systems are very simple), as this may require significant Auditee and auditor resources.

7.1.8 It is therefore accepted practice to divide the audit schedule into a number of audits each of which is a manageable task. This can be done in a number of ways:

- By POSMS / POEMS and IPT SMS/EMS requirement - This involves the auditing of the whole project(s) against each POSMS / POEMS and IPT SMS/EMS requirement in turn. This approach may cross several activities and/or projects/organisations.
- By POSMS / POEMS procedure – This approach allows a full audit trail to be gathered.
- By activity, project, organisation or geographical basis – This approach

provides a full audit trail only when all departments have been assessed.

- By safety risk or environmental impact - Full audit trails are obtained by crossing projects, organisations or activities, although the audit can be difficult to structure.

7.1.9 When deciding on how to partition the audit schedule, the following issues should be considered:

- Purpose of the audit;
- Any external requests for an audit to take place. For example, from:
  - The delegation chain PM, IPTL, CDP and/or CDL, SofS (via DESB);
  - Other TLBs;
  - 2* Directors and 1* Deputy Directors;
  - Functional Safety Boards;
  - ASESG;
  - DS&C; and
  - Stakeholders (Customer 1 and 2, DE, CESOs etc) through Safety Committees.
- Scope of the EMS and SMS;
- Relevant domain JSP auditing requirements;
- Stakeholders' expectations;
- Existing IPT audit regimes including any audits planned or recently completed by other parties.
- Logistics;
- Where different parts of the same management system are best audited together;
- Where elements of the safety and environmental management systems are best audited together;
- The Auditees and auditors likely to be involved;
- Timeframe for implementing the management system(s); and
- The frequency that the system element needs to be audited (i.e. try not to group elements of the management system which are best audited at a different frequency).

7.1.10 SMS and EMS elements would be expected to be audited more frequently in the following situations:

- They have not been covered or only partially covered by previous audits;
- A high number of non-conformances have been identified;
- There is a high safety risk or priority environmental impact;
- Accidents, incidents or occurrences with safety or environmental implications

have been reported;

- A prescriptive legal or other standard applies;
- There is a demonstrable level of stakeholder interest or concern;

7.1.11 There may also be a need for more frequent audits in cases where:

- The project is approaching a critical milestone;
- There has been a major change in procedures, equipment system specification or use, or environmental and safety standards;
- There have been major staff changes.

7.1.12 When you have partitioned up the audit schedule into manageable pieces, double check that all elements to be audited are being covered.

Audit Frequency

7.1.13 The next task in formulating the audit schedule is to set a frequency for how often each audit should be completed. Audit frequency should be kept to a minimum to reduce the likelihood of 'audit fatigue' in the Auditee, but frequent enough to provide assurance that the management system(s) is operating effectively.

7.1.14 The frequency of audits will vary from project to project but should aim to cover each element of the management system(s) at least once every 3 years. To avoid 'over-auditing' it is recommended that each element of the management system should be audited no more frequently than every 6 months (this excludes follow-up checks).

7.1.15 The IPT should refer to the relevant domain JSP to establish whether it requires a shorter minimum auditing interval (higher frequency). Audit frequency may also be influenced by stakeholders' expectations, existing IPT's regimes and Project Review and Assurance (PR&A) schedules.

Documentation and Communication

7.1.16 Form AAP01a/F/01 - Audit Schedule can be used to record the scope, frequency and timing of audit(s).

7.1.17 For audits where the audit client is not the IPTL, it is recommended that the Auditee should be contacted at this early stage to give them advance notice of the impending audit. **Form AAP01a/F/03** may be used for this purpose.

7.2 Step 2 – Appoint the Lead Auditor

7.2.1 For each audit defined in the audit schedule, a Lead Auditor should be appointed. The Lead Auditor may be selected from any of the following groups:

- The Audit Client;
- The equipment system contractor, (eg where they have a significant role in implementing the SMS and/or EMS)*;
- From another IPT than is to be audited**;
- SMEs (eg Safety and/or Environmental Consultants)**;

- Another part of the MOD.

* Where an IPT uses equipment system contractors to audit the SMS or EMS, then the IPT is to undertake sample checks on the audit schedule to ensure the procedure has been followed correctly.

** The use of these parties may be helpful in cases where it is important to demonstrate the independence of the auditors from the IPT.

7.2.2 The following aspects should be considered when appointing the Lead Auditor:

- Auditing competency;
- Knowledge of POSMS and POEMS;
- Equipment system and domain knowledge;
- Personal attributes; and
- Security clearance.

7.2.3 Further information on establishing and evaluating auditor competency can be found in guidance sheet **AAP01a/G/01 –** Auditor Competency Interim Guidance**.**

7.3 Step 3 – Define the audit objectives, scope and criteria

7.3.1 Although the audit schedule defines the general scope of the audit, more detail on its scope, objectives and criteria should be defined by the Audit Client and Lead Auditor (see Section 8 of POSMS and POEMS).

7.3.2 Audit criteria should be used to determine the tests for conformity with the objectives of the audit and be defined through discussions between the Audit Client and the Lead Auditor. **Form AAP01a/F/02** - Audit Details, Team Composition and Competence Record Form can be used to record these decisions.

7.3.3 As part of the audit the Audit Client may also request that the Lead Auditor:

- Provides recommendations to address any non-conformance identified;
- Reviews corrective and preventive actions proposed by Auditee; and
- Completes follow-up checks to confirm non-conformances have been closed out.

7.4 Step 4 – Check the feasibility of the audit

7.4.1 The Auditee should be given sufficient notice that an audit will be taking place and be made aware of the objectives, scope and criteria of the audit. This will not only remind the Auditee of the planned audit, but also allow the feasibility of undertaking the audit as timetabled to be confirmed. **Form AAP01a/F/03** – Notification of Audit Letter may be used for this purpose.

7.4.2 Factors that will affect the feasibility of undertaking the audit at a particular time will include the availability of:

- Sufficient and appropriate information to plan the audit; and
- Adequate time and resources of the Auditee and auditors.

7.4.3 If it has been determined that it is not feasible to undertake the audit, an alternative solution should be agreed between the Audit Client, Lead Auditor and Auditee.

7.5 Step 5 – Select the audit team

7.5.1 Depending on the scope, size, and timescale of the audit, an Audit Team may consist of only the Lead Auditor, or it may consist of a number of auditors. When selecting members of the Audit Team, the following issues should also be considered:

- Audit objectives, scope and criteria (See **Form AAP01a/F/02**);
- Independence of the Audit Team and the entity being audited;
- Audit timescales (See **Form AAP01a/F/02**);
- Auditor availability; and
- Competence of Audit Team to achieve audit objectives.

7.5.2 It is reasonable to include Aspirant Auditors within the Audit Team as a means to improve their competence level for future audits, as long as the aspirant auditor is not permitted to audit without appropriate direction and guidance from a competent auditor(s). On particularly large or complex audits it may be advisable to have administrative support within the Audit Team. Note it is also possible to meet skills or knowledge requirements through the inclusion of an auditing expert or Subject Matter Expert to support the Audit Team.

7.5.3 Further information on establishing and evaluating auditor competency can be found in guidance sheet **AAP01a/G/01 -** Auditor Competency Interim Guidance.

7.6 Step 6 – Contacting the Auditee

7.6.1 The Lead Auditor should contact the Auditee to arrange an initial visit prior to the onsite audit phase. This should take place no less than 1 month before the site audit to allow the Auditee sufficient time to prepare for the audit.

7.6.2 The objectives of this initial visit include:

- For the Auditee to understand the purpose of the audit;
- To enable audit methodology, limitations and timetable to be discussed;
- For the Auditee to meet the Lead Auditor (or team member) and for them to explain who has been appointed on the Audit Team;
- To establish Auditee role/contribution to the audit (e.g. to provide a guide to escort the team during the audit and provide access to areas, documentation and staff)
- To identify staff to be interviewed and their availability;
- To agree office and support arrangements for the Audit Team;
- For the Lead Auditor to gain an understanding of the area(s) to be audited;
- To identify documentation which will be required to be examined before and during the audit;

- To confirm confidentiality of documentation; and
- To facilitate the production of the audit plan.

7.6.3 Where the Lead Auditor considers that an initial site visit is not appropriate or required then planning for the audit can be made by letter/e-mail etc. Issues to consider in deciding whether a site visit is required are as follows:

- Existing familiarity with the area being audited;
- Travel time/costs; and
- Type, scope and depth of audit.

7.6.4 The Lead Auditor may also utilise a Pre-Audit Questionnaire where they consider that this would be of benefit to the audit process. The time the Auditee will need to complete the questionnaire should be minimal and the questionnaire should only be used to gather information to assist in the audit planning and document review stage, not as a replacement of work which should be completed during the on-site audit.

7.6.5 Where the Auditee objects to any members of the Audit Team completing the audit, then they should have a strong justified reason for doing so before another team member is appointed. Where the Audit Client and Auditee are unable to agree on a particular Audit Team member (including the Lead Auditor) then this should be referred to ASESG.

8 RECORDS AND PROJECT DOCUMENTATION

8.1.1 Where relevant, the outputs from this procedure should feed into the following:

- Assurance and Audit Procedure AAP01b – Audit Planning

8.1.2 A copy of the information produced by following this procedure should be stored in the Project Safety and Environmental Cases as appropriate.

9 RECOMMENDED TOOLS AND FORMS

a. **Form AAP01a/F/01 -** Audit Schedule

b. **Form AAP01a/F/02 -** Audit Details, Team Composition and Competence Record Form

c. **AAP01a/G/01** – Auditor Competency Interim Guidance

d. **Form AAP01a/F/03** – Notification of Audit Form

10 GUIDANCE

10.1 General

10.1.1 JSP 375, 418, 430, 454, 518, 520, 525, 538, 55x series, ES(Air)BP1201 and the SHEF audit manual all include information on auditing. The ISO14000 series is useful, particularly ISO14001 and ISO14004, and also OHSAS 18001 and ISO 19011.

10.1.2 Although auditing Customer 2 is out of the scope of the audit procedure, information provided by Customer 2 in showing compliance with SMS and EMS requirements,

and required equipment system safety and environmental performance (e.g. objectives and targets and operational controls) should be included in the audit.

10.1.3 If an IPT already has a project management system or procedures (eg ISO 9000) that cover system auditing, then these may be used in place of these POSMS and POEMS procedures so long as ASESG is satisfied that they meet the same objectives.

10.1.4 Further guidance on the application of this procedure can be obtained from ASESG. The Institute of Environmental Management and Assessment (IEMA) and Institute of Safety and Health (IOSH) are professional bodies in environmental and safety auditing respectively and may hold useful information on auditing (Further information can be found at http://www.iema.net & http://www.iosh.co.uk).

10.2 Aligning Safety and Environment

10.2.1 The key alignment opportunity in this procedure is to ensure that both safety and environmental issues are audited together, where this is practical and beneficial.

10.3 Guidance for ASESG

10.3.1 In addition to completing sample audits of IPT's safety and environmental managements systems, ASESG should ensure that it also audits its compliance against the procedures which solely apply to ASESG, eg SSP01b, SSP02b, SSP03b.

10.4 Warnings and Potential Project Risks

10.4.1 If audits are not completed correctly or not completed at all, there is an increased risk that IPTs fail to operate effective SMS and EMS, which in turn increases the risk of poor or ineffective management of safety and/or environmental risks within the project(s). It may also lead to delays and cost impacts if shortcomings in the SMS and/or EMS are identified late, because rework may be required or approvals may be delayed.

Form AAP01a/F/01 – Audit Schedule			
Project(s) Title			
IPT:			
Completed by:		**Date:**	
Reviewed by:		**Date:**	

Audit title or ref	Audit scope	Audit date	Audit Frequency	Date completed	Auditee's details	Additional information

Form AAP01a/F/02 – Audit Details, Team Composition and Competence Record			
Project(s) Title			
IPT:			
Completed by:		**Date:**	
Reviewed by:		**Date:**	
Audit title or ref:			
Lead Auditor (name and organisation):			
Audit team (names & organisations):			
Competency details of each member of team **(See Form AAP01a/G/01)**			
Audit scope:			
Audit objectives:			
Audit criteria:			
Auditee:			
Planned date for audit:			
Security classification:	**Unrestricted / Restricted / Secret / Top-Secret**		
Additional information:			

AAP01a/G/01 – Audit Competency Interim Guidance	
There are 3 main parties involved in auditing the safety and environmental management systems in POEMS and POSMS, these being: • **Lead Auditor** – The person responsible for leading and managing an audit and audit team. • **Auditor** – A person who forms part of an audit team • **Aspirant Auditor** – A person who forms part of the audit team who is undergoing training, or other development process, in order to attain auditor status.	
General attributes of all auditors:	
Personal:	**Auditors at all levels should be -** • Ethical. • Open-minded. • Diplomatic. • Observant. • Perceptive. • Versatile. • Decisive. • Self-reliant.
Knowledge and skills:	**All staff involved in auditing POSMS and POEMS procedures should be able to:** • Apply audit principles, procedures and techniques. • Conduct an audit (or designated task) within agreed time schedule. • Collect information through effective interviewing, listening, observing and reviewing relevant information. • Verify the accuracy of collected information. • Use correct documentation to record audit activities. • Prepare audit reports. • Maintain confidentiality. • Understand system standards. • Have an awareness of relevant laws, regulations and requirements. • Understand relevant environmental and safety terminology. • Understand environmental/safety management principles. • Understand relevant environmental and safety management tools.

Aspirant auditor	
Competency and experience:	Initially the most important areas of experience and competence are the attributes outlined in the General Attributes section above. However, in addition aspirant auditors should: • Have some knowledge of, and the ability to apply (under supervision) audit processes. • Be proficient at effectively utilising their time during audits. • Provide assistance to the Lead Auditor and audit team members where required. • Help with the preparation and production of the audit report. • Understand MoD Safety and Environmental management requirements. • Have knowledge of ASEMS, POEMS and POSMS.
Auditor	
Competency and experience:	An Auditor is expected to: • Have successfully completed an accredited auditing course (eg ISO 14001, 9001, OHSAS 18001) or have equivalent practical training and experience. • Have gained experience in the entire audit process by participating in a minimum of two audits, including undertaking document review and audit reporting. • Be proficient at effectively utilising their time during audits. • Provide assistance to aspirant auditors. • Help with the preparation and production of the audit report. • Understand MoD safety and environmental management requirements. • Have knowledge of ASEMS, POEMS and POSMS.
Lead Auditor:	
Competency and experience:	A Lead Auditor is expected to: • Have successfully completed an accredited auditing course (eg ISO 14001, 9001, OHSAS 18001) or have equivalent practical training and experience. • Have acted as an auditor in at least two complete audits. • Advise on and interpret requirements of audit processes with sufficient breadth of experience, knowledge and depth of understanding, to be able to apply audit management requirements. • Generate an effective auditing strategy and plan, based on the identified audit requirements. • Be proficient at planning and effectively utilising resources during audits. • Organise and direct audit team members. • Provide guidance and assistance to aspirant auditors.

	• Lead the audit team to reach the audit conclusions. • Prepare, complete and review the audit report. • Understand MoD safety and environmental management requirements. • Have knowledge of ASEMS, POEMS and POSMS and domain functional policy requirements. Do not forget that any audit must be able to inform the functional Boards that policy is being implemented effectively. Note that whilst Lead Auditors are required to have competencies in auditing and ASEMS, it is not necessary for them to be competent with the domain of the equipment and services being audited. The Lead Auditor can call on auditors with domain competence, or SMEs to support, or be part of, the audit team.

AAP01a/F/03 – Notification of Audit Letter

Example letter to notify Auditee of an impending audit

To: *(Auditee)*

RE: PROJECT ORIENTED ENVIRONMENTAL AND SAFETY MANAGEMENT SYSTEM (POEMS/POSMS) AUDIT

As part of the continual improvement in the operation of (*insert IPT/project(s)*) safety and environmental management systems, I have been requested by (*insert Audit Client name*) to act as Lead Auditor for a system audit covering (*insert detail of scope of audit)to* be undertaken on (*Date).*

The objectives of the audit will be *(Insert objectives of audit).*

Please can you and/or your Safety Manager/Project Manager attend a pre-audit meeting with me and my colleague(s) (*insert name of Audit Team Member(s)*) so we can discuss the audit process and scope and prepare for undertaking the audit.

Please do not hesitate to contact me (*insert contact details*) if you have any queries. Otherwise I will contact you in one week to confirm a mutually acceptable date and time for the pre-audit meeting.

From: *(Insert name Lead Auditor)*

0 SHOWING CONFORMANCE

0.1 Options

0.1.1 There are three options to demonstrate conformance when applying this system procedure:

a. Follow the defined system procedure using the recommended guidance and tools, including allowed variations and options.

b. Use an equivalent process and tool set generated elsewhere and document evidence of procedural equivalence.

c. Use an equivalent bespoke process and tool set for the project and document evidence of procedural equivalence.

1 INTRODUCTION

1.1.1 This procedure is the second in a set of four procedures and deals with the details of planning the on-site audit.

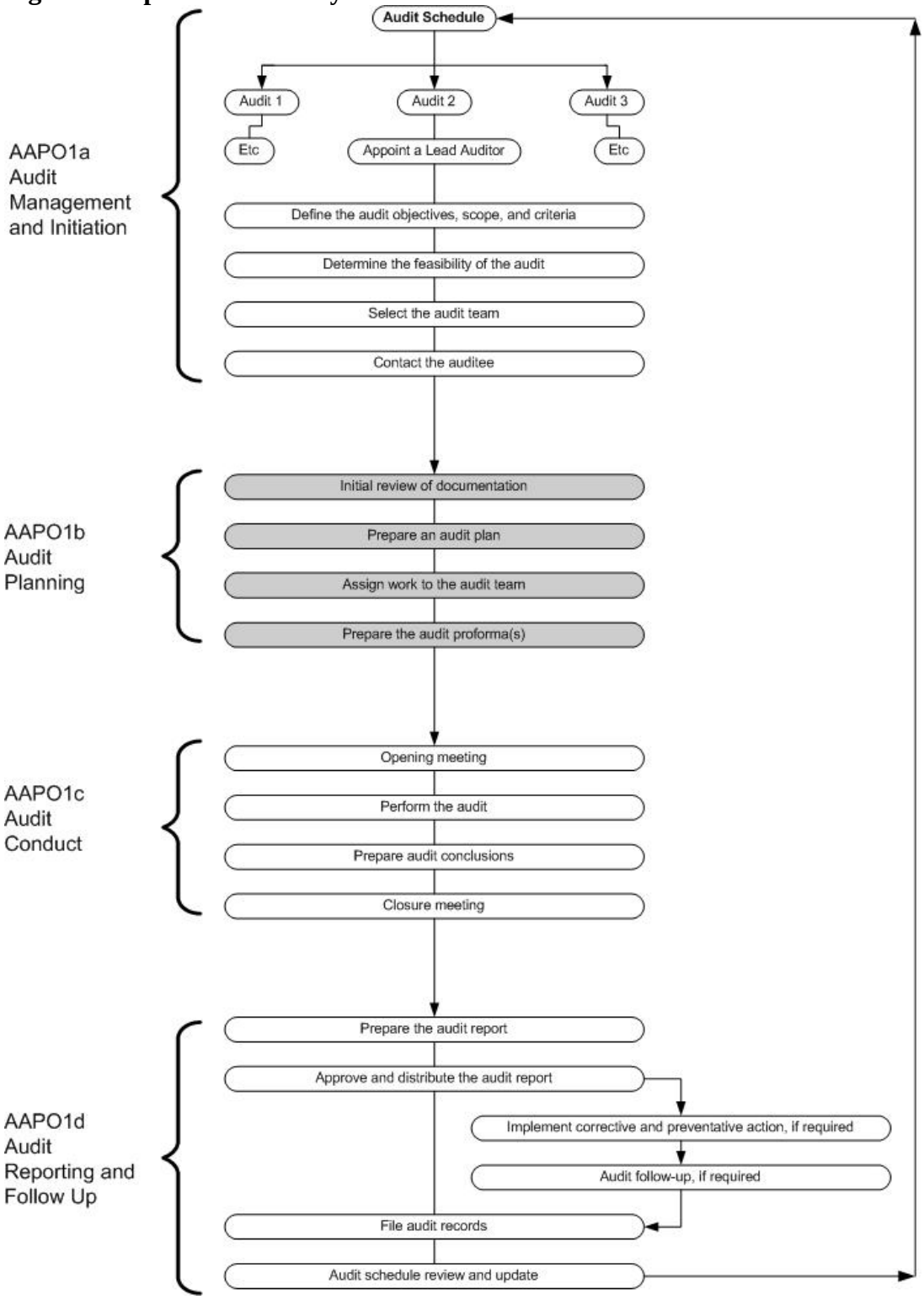
1.1.2 Although this and the companion procedures have been produced primarily for use by and on behalf of IPTs, they may also be used by ASESG to carry out audits on the SMS and EMS. In addition, other parties may also use these procedures for auditing all or parts of an IPT's SMS and EMS such as:

- Functional Safety Board Secretariats;
- DS&C;
- Third Parties invited by CDL/CDP;
- Independent Safety Auditors;
- MOD and TLB Internal Audit Functions;
- Equipment system contractor;
- Personnel seconded from another IPT;
- Customer 2;
- SME;
- Environmental and Safety Consultants.

1.1.3 Any third party using these procedures should note that they have primarily been written for use by IPTs and therefore may use terminology specific to IPTs. However, this should not preclude a third party from using the procedures.

Throughout the procedures the term 'Audit Client' has been used to describe the group, organisation or individual commissioning an audit, as this may be distinct from the party carrying out the audit.

Figure 1 Steps Within The System Audit Procedures



2 RESPONSIBILITIES

2.1 Accountability

2.1.1 The Audit Client is accountable for the completion of this procedure.

2.2 Procedure Management and Procedure Completion

2.2.1 The Lead Auditor is responsible for ensuring that this procedure is managed and completed. The Lead Auditor may delegate tasks to members of the Audit Team in regards to the management and completion of this procedure.

3 WHEN

3.1.1 Immediately after the completion of Procedure AAP01a.

4 REQUIRED INPUTS

- Audit Question Toolset (available from ASESG);
- **Form AAP01a/F/01** - Audit Schedule;
- **Form AAP01a/F/02** - Audit Details, Team Composition and Competence Record Form;
- Other documents relevant to the scope and objective of the audit (e.g. POSMS / POEMS);
- IPT SMS and EMS documents and records; and
- **Form AAP01d/F/01** - Previous audit reports

5 REQUIRED OUTPUTS

Form AAP01b/F/01 - Audit Plan

Form AAP01b/F/02 - Audit Pro-forma (partly complete)

OR

Equivalent actions and documentation that ASESG is satisfied achieve the same objectives.

6 DESCRIPTION

6.1 Step 1 – Initial document review

6.1.1 By following AAP01a the Lead Auditor should have identified and obtained any documents that have to be reviewed as part of the preparation for the audit. This documentation should include all the management system documents, records and any previous audit reports relevant to the scope of the audit. Previous audit reports should be examined to establish follow-up work which may be required and to ensure that the audit does not duplicate work competed in a recent audit.

6.1.2 If this document review reveals major non-conformances with the management system then the Lead Auditor may decide that it would be better to postpone the audit until the documentation discrepancies have been resolved. This should be discussed with the Audit Client before a decision is made and communicated to the Auditee.

6.2 Step 2 – Prepare the Audit Plan

6.2.1 The Lead Auditor must prepare an Audit Plan to ensure that the audit meets all the identified criteria and is carried out in a professional manner with efficient use of time and resources.

6.2.2 The Audit Plan should be written so it is flexible enough to permit any minor changes which may be needed during the course of the audit, for example additional staff may have to be interviewed.

6.2.3 The Audit Plan(s) should cover the following elements:

- Location of audit;
- Audit scope and objectives (from Form AAP01a/F/01) and criteria (from AAP01a/F/02;
- Reference documents;
- Auditors' details;
- Auditee's names and contact details; and
- Audit date and timetable/on-site work agenda;

6.2.4 The Audit Plan may also include:

- Areas and documents to inspect;
- Any language requirements e.g. for production of audit report;
- Logistic arrangements (travel, on-site facilities, etc);
- On site administrative arrangement (site access, security clearance);
- Health and safety issues associated with carrying out the audit; and
- Any security requirements including document confidentiality.

Form AAP01b/F/01 can be used to document the Audit Plan.

6.2.5 Once the Audit Plan(s) has been drawn up, it should be approved by the Audit Client and Auditee before use. Any objections by the Auditee should be resolved between

the Lead Auditor, the Auditee and the Audit Client. Any revised Audit Plan should then be agreed among the parties concerned before continuing.

6.3 Step 3 - Assign work to the audit team

6.3.1 The Lead Auditor, in consultation with the Audit Team, should assign each team member with specific tasks. The competency and independence of the Auditor Team members should be taken into consideration (see **Form AAP01/F/02)**.

6.3.2 During the completion of this Step, the Lead Auditor may identify the need to make changes to the members of the Audit Team (e.g. all competences required are not covered in the Audit Team). If changes are required to be made to the Audit Team composition, then the Lead Auditor should amend **Form AAP01a/F/02** and inform the Auditee and Audit Client of this change.

6.4 Step 4 - Prepare Audit Pro-forma(s)

6.4.1 A key part of the planning stage will be to produce the Audit Pro-formas that will be used by the Audit Team members in the completion of the assigned audit tasks. These pro-formas will be generated by the Audit Team with reference to the Audit Plan and should include the audit questions. These should be identified by:

- Identifying which Question Toolset(s)(Available electronically at http://www.asesg.dii.r.mil.uk) is relevant to the audit;
- Where necessary, tailoring the model questions from the relevant question sets to suit the audit criteria; and
- Adding further questions, based on audit-specific issues and knowledge of the project being audited.

6.4.2 The use of an Audit Pro-forma has many benefits including:

- It provides a structured set of questions, ensuring that no subject areas are inadvertently overlooked;
- It facilitates the smooth running of the audit, thereby causing minimal disruption to project work; and
- It provides a traceable and documented process of the generation of audit findings.

6.4.3 All Audit Pro-forma(s) should be reviewed by the Lead Auditor prior to use.

6.4.4 The Pro-forma(s) should be used in the audit to record:

- Audit Findings:
  - **Questioning**: How is the requirement satisfied?
  - **Evidence**: What evidence is provided in support?
  - **Auditor's Opinion**: Draw conclusions from responses.
- Assessed level of compliance; and
- Notes (e.g. any recommendations that have been made as part of the audit).

6.4.5 The 'Assessed level of compliance' field will record the Audit Team's judgement on whether the Auditee has satisfied the specific area under review. The response to be recorded will be one of the following:

- **Assessed compliant**: No weaknesses observed: the required system procedure or process has been adhered to;
- **Non-conformance**: Example identified by the Audit Team where a required system procedure or process has not been adhered to (refer to AAP04 – Non-Conformance and Corrective Action); or
- **Observation**: Written report by the Audit Team which does not relate to a conformance issue but may otherwise be of benefit to the Auditee or the Audit Client, eg possible improvements (refer to AAP04 – Non-Conformance and Corrective Action).

6.4.6 **Form AAP01b/F/02** provides a blank Audit Pro-forma which should be used to record the questions to be asked by the auditors. Separate pro-formas may be completed per auditor/audit/system element.

7 RECORDS AND PROJECT DOCUMENTATION

7.1.1 Where relevant, the outputs from this procedure should feed into the following:

- Assurance and Audit Procedure - AAP01c

7.1.2 A copy of the information produced by following this procedure should be stored in the Project Safety and Environmental Cases as appropriate.

8 RECOMMENDED TOOLS AND FORMS

Form AAP01b/F/01 - Audit Plan

Form AAP01b/F/02 - Audit Pro-forma

Audit Question Toolsets (available from ASESG)

9 GUIDANCE

9.1 General

9.1.1 JSPs 375, 418, 430, 454, 518, 520, 525, 538, 55x series, ES(Air)BP1201 and the SHEF audit manual all include information on auditing. The ISO14000 series is useful, particularly ISO14001 and ISO14004, and also OHSAS 18001 and ISO 19011.

9.1.2 Although audits of Customer 2 are outwith the scope of the system audits, information provided by Customer 2 which relates to SMS and EMS requirements or the safety and environmental performance of the equipment (e.g. objectives and targets and operational controls) should be included in the audit.

9.1.3 If an IPT already has a project management system or procedures (e.g. ISO 9000) that cover system auditing, then these may be used in place of these POSMS and POEMS procedures so long as ASESG is satisfied that they meet the same objectives.

9.1.4 Further guidance on the application of this procedure can be obtained from ASESG. The Institute of Environmental Management and Assessment (IEMA) and Institution of Occupational Safety and Health (IOSH) are professional bodies in environmental and safety auditing respectively and may produce useful information on auditing. (Further information can be found at http://www.iema.net & http://www.iosh.co.uk).

9.2 Aligning Safety and Environment

9.2.1 The key alignment opportunity in this procedure is to plan safety and environmental audits together, where this is practical and beneficial.

9.3 Guidance for ASESG

9.3.1 In addition to completing sample audits of IPTs' SMS and EMSs, ASESG should ensure that audits are performed that check ASESG's compliance with those procedures that apply directly to it eg SSP01b, SSP02b, SSP03b.

9.4 Warnings and Potential Project Risks

9.4.1 If audits are not completed or are incomplete, there is an increased risk that an IPT's SMS or EMS does not achieve its objectives. This may lead to increased safety and environmental risks associated with the project. It may also lead to delays and cost impacts if shortcomings in the SMS and/or EMS are identified late, because rework may be required or approvals may be delayed.

Form AAP01b/F/01 – Audit Plan			
Project Security classification:			
Project(s) Title			
IPT:			
Completed by:		**Date:**	
Reviewed by:		**Date:**	
Audit title/ref:			
Audit team details:			
Auditee's names and contact details			
Location of audit:			
Audit scope, objectives and criteria			
Reference documents:			
Audit date(s)			
Audit timetable/on-site work agenda			
Where appropriate please document the following -			
Areas and documents to inspect			
Language of audit process (if different to language of the auditor)			
Logistical arrangements (travel, on-site facilities, etc.)			
On-site administrative arrangements (site access, security clearance)			
Safety Issues			
Additional information:			

Form AAP01b/F/02 – Audit Pro-forma			
Project(s) Title			
IPT:			
Completed by:		**Date:**	
Reviewed by:		**Date:**	
Audit title/ref.		**Pro-forma ref.**	
Auditor(s)		**Pro-forma objective**	
Interviewee(s)		**Pro-forma scope**	

Question Reference	Source Document	Audit Question	Guidance for Auditor	Questioning	Evidence	Auditor's Opinion	Assessed Level of Compliance	Actions

0 SHOWING CONFORMANCE

0.1 Options

0.1.1 There are three options to demonstrate conformance when applying this system procedure:

a. Follow the defined system procedure using the recommended guidance and tools, including allowed variations and options.

b. Use an equivalent process and tool set generated elsewhere and document evidence of procedural equivalence.

c. Use an equivalent bespoke process and tool set for the project and document evidence of procedural equivalence.

1 INTRODUCTION

1.1.1 This is the third of four System Audit procedures and describes how system audits should be performed. Once the audit plan has been agreed and the audit pro-formas compiled, the audit can take place. Details of how the audit will be undertaken will have been defined in the Audit Plan and should include opening and closing meetings in addition to the collection, verification and documentation of audit findings and conclusions.

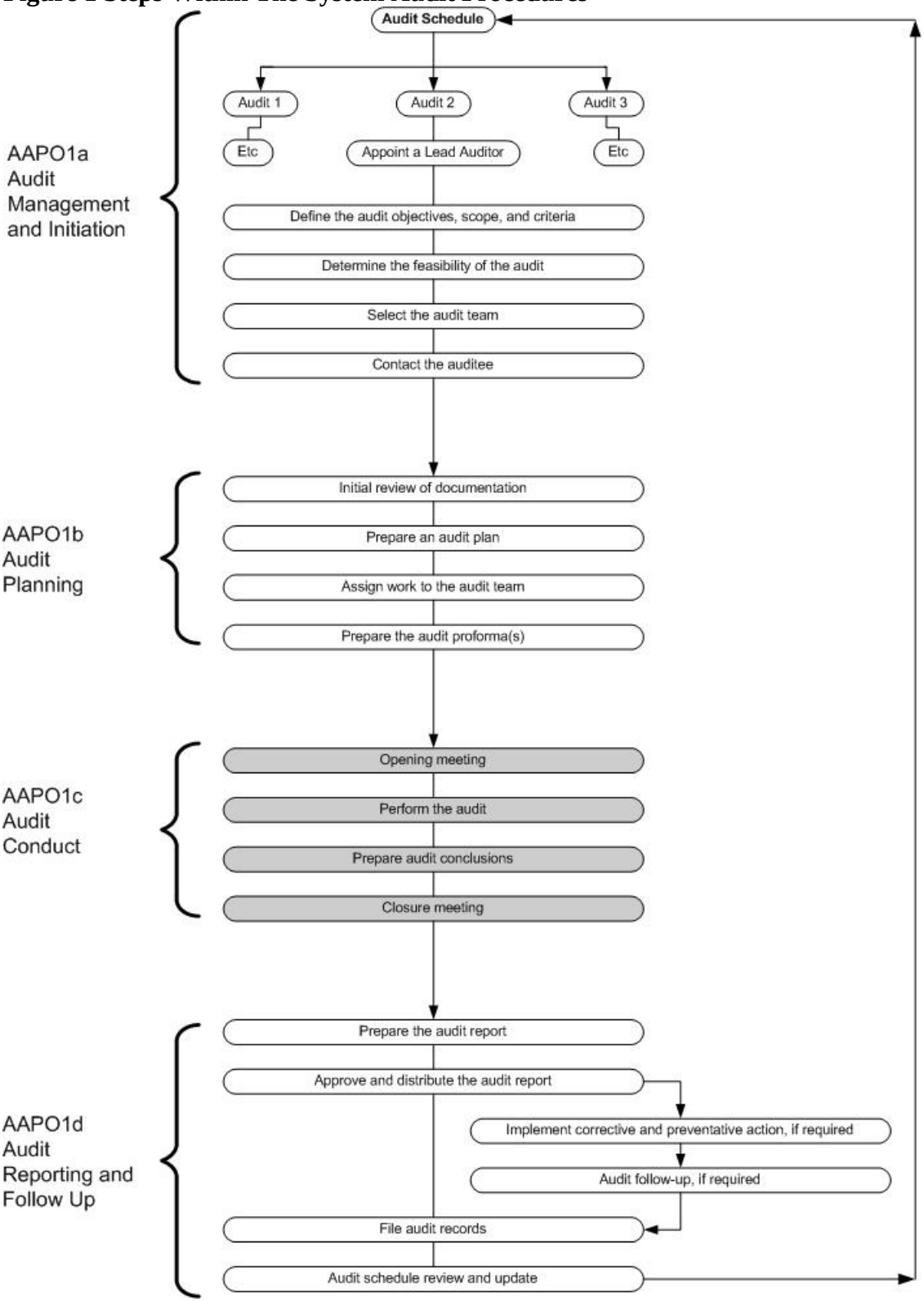
1.1.2 Although this and the companion procedures have been produced primarily for use by and on behalf of IPTs, they may also be used by ASESG to carry out audits on the SMS and EMS. In addition, other parties may also use these procedures for auditing all or parts of an IPT's SMS and EMS such as:

- Functional Safety Board Secretariats;
- DS&C;
- Third Parties invited by CDL/CDP;
- Independent Safety Auditors;
- MOD and TLB Internal Audit Functions;
- Equipment system contractor;
- Personnel seconded from another IPT;
- Customer 2;
- SME;
- Environmental and Safety Consultants.

1.1.3 Any third party using these procedures should note that they have primarily been written for use by IPTs and therefore may use terminology specific to IPTs. However, this should not preclude a third party from using the procedures.

Throughout the procedures the term 'Audit Client' has been used to describe the group, organisation or individual commissioning an audit, as this may be distinct from the party carrying out the audit.

Figure 1 Steps Within The System Audit Procedures



2 PROCEDURE OBJECTIVES

2.1.1 The objectives of this procedure are to:

- Ensure that audits are performed efficiently and effectively in accordance with the Audit Plan;
- Identify non-conformances and observations when performing audits.

3 RESPONSIBILITIES

3.1 Accountability

3.1.1 The Audit Client is accountable for the completion of this procedure.

3.2 Procedure Management and Procedure Completion

3.2.1 The Lead Auditor is responsible for ensuring that this procedure is managed and completed. The Lead Auditor may delegate tasks to members of the Audit Team in regards to the management and completion of this procedure.

4 WHEN

4.1.1 As per the Audit Plan.

5 REQUIRED INPUTS

- **Form AAP01b/F/01 -** Audit Plan;
- **Form AAP01b/F/02 -** Audit Pro-forma (partially completed in AAP01b);
- Relevant IPT documentation;
- **Form AAP04/F/01** – Non-conformance and Corrective Action Form (if needed); and
- **Form AAP01c/F/01** – Record of Audit Meeting.

6 REQUIRED OUTPUTS

Form AAP04/F/01 – Non-conformance and Corrective Action Form;

Form AAP01b/F/02 - Audit Pro-forma(s) – Fully completed;

Form AAP01c/F/01 – Record of Audit Meeting (completed for Opening Meeting);

Form AAP01c/F/01 – Record of Audit Meeting (completed for Audit Team Meeting(s)); and

Form AAP01c/F/01 – Record of Audit Meeting (completed for Closing Meeting).

OR

Equivalent actions and documentation that ASESG is satisfied achieve the same objectives.

7 DESCRIPTION

7.1 Step 1 - Opening meeting

7.1.1 On the day of the audit it is good practice to hold an opening meeting on-site before the audit commences. This should be attended by the Auditee and Audit Team and can include the following issues:

- Introduce Audit Team members to the Auditee(s);
- Confirm that the resources and facilities needed by the Audit Team are available;
- Briefly discuss the audit scope, objectives and methodology;
- Briefly discuss the Audit Plan, (e.g. personnel and areas to be interviewed);
- Confirm communication arrangements between the Audit Team and the Auditee;
- Confirm the roles and responsibilities of any guides and observers that may be used;
- Confirm any security or confidentiality arrangements;
- Confirm the circumstances under which the audit may be terminated;
- Safety and housekeeping arrangements; and
- Confirm the time and date for the closing meeting and any interim meetings of the Audit Team and the Auditees.

7.1.2 The above could be used as a basis for the agenda for the opening meeting. Minutes from the opening meeting should be recorded on **Form AAP01c/F/01** – Record of Audit Meeting.

7.1.3 It is important in the meeting to allay any concerns the Auditee may have, for example by explaining that the audit is to assist them rather than to judge. The Auditee should be allowed the opportunity to clarify any concerns they may have regarding the audit. Minutes of this meeting, including a record of attendees should be taken and kept. The meeting will be chaired by the Lead Auditor.

7.2 Step 2 – Perform the audit

7.2.1 The aim of the on-site audit is to obtain evidence on actual practices (current and past) and to identify the degree of compliance and any areas for potential improvement. The Audit Pro-formas should be used to record the audit findings.

7.2.2 Non-conformances and any subsequent recommendations should be recorded by the Audit Team following procedure AAP04 – Non-conformance and Corrective Action.

7.2.3 Interviews, observations, document review and reviews of previous audits are all acceptable methods for collecting evidence to support the audit findings. Auditors should aim to follow an audit trail and may ask additional questions to those in the Audit Pro-formas, where they consider that this will assist the audit process.

7.2.4 Auditors should attempt to compile and document evidence that can be evaluated

against the audit criteria to form the audit findings. Where possible this should be verifiable, although anecdotal evidence can be used as a basis for audit findings. In many cases, audit findings may be based on opinions formed by examining samples of data or information, rather than whole datasets, and this element of uncertainty should be acknowledged when presenting the audit findings.

7.2.5 Any potential non-conformance should be discussed immediately with the interviewee so they understand the basis of the non-conformance and agree that the audit finding is accurate.

7.2.6 Evidence collected during the audit which suggests that there is a safety or environmental risk which requires immediate attention (even if this is not within the scope of the audit) should be reported without delay to the Lead Auditor, who should report it immediately to the Auditee. Any concerns relating to non-urgent issues identified that are outside the scope of the audit should be noted and reported to the Lead Auditor who should then report it to the Audit Client and Auditee.

7.2.7 If during the course of the audit it becomes apparent that the objectives of the audit are not going to be achieved, this should be reported and appropriate action determined between the Lead Auditor, the Audit Client and the Auditee. Such actions may include the modification to the Audit Plan, changes to the audit objectives or scope or, if necessary, the termination of the audit.

7.2.8 Guides from the Auditee organisation used to accompany the Audit Team must not be permitted to have any influence over, or cause interference with, the conduct of the audit. Their purpose is only to assist the Audit Team and act on the request of the Lead Auditor. They may be required to undertake any or all of the following:

- Establish contacts and times for interviews;
- Arrange visits;
- Ensure that safety and security arrangements are communicated and followed;
- Act as witness for the Auditee; and
- Provide clarification or assist in the collection of information.

7.2.9 The Lead Auditor should supervise the Audit Team throughout the audit and review any audit findings at the close of each day. **Form AAP01c/F/01** – Record of Audit Meeting may be used to record these meetings. He/she should also ensure that the Audit Team can contact him/her to discuss any issues that may arise through the course of the audit.

7.3 Step 3 - Prepare audit conclusions

7.3.1 After completing the audit the Audit Team should meet to:

- Review the audit findings, and any other appropriate information collected during the audit, against the audit objectives;
- Agree on the audit conclusions, taking into account the uncertainty inherent in the audit process;

- Prepare recommendations, if this is one of the audit's objectives; and
- Discuss audit follow-up, if the Audit Client has specified that this will be part of the auditor role.

7.3.2 **Form AAP01c/F/01** – Record of Audit Meeting can be used to record this meeting.

7.4 Step 4 – Closure meeting

7.4.1 The closing meeting should be chaired by the Lead Auditor and be attended by the Auditee, and possibly the Audit Client. Minutes of the meeting, including a list of attendees, should be made by a member of the Audit Team and included in the Audit Report. The closing meeting may include:

- An informal debrief for the Auditee;
- A summary of the audit activities and findings;
- Overview of system strengths and weaknesses;
- Discussion of preliminary findings, including non-conformances (highlighting any findings requiring immediate attention);
- Discussion of any findings that can be closed out immediately by the Auditee.
- Audit limitations (e.g. situations encountered during the audit that may decrease the reliance that can be placed on the audit conclusions);
- Address Auditee questions or concerns;
- Where included within the objectives of the audit, recommended corrective/preventive actions. (The Auditee should be made aware that these are recommendations, and they will have the opportunity to later propose actions they consider more appropriate);
- Discuss timeframe for issuing draft Audit Report;
- Discuss scope and contents and recipients of the Audit Report; and
- Where required, agree timeframe for the Auditee to present a corrective/preventive action plan.

7.4.2 The above could be used as a basis for the agenda for the closing meeting. Minutes from the closing meeting should be recorded on **Form AAP01c/F/01** – Record of Audit Meeting.

7.4.3 Diverging opinions regarding the audit findings and/or conclusions between the Audit Team and the Auditee should be discussed and resolved where possible. Any unresolved issues will be noted and reported to the Audit Client.

8 RECORDS AND PROJECT DOCUMENTATION

8.1.1 Where relevant, the outputs from this procedure should feed into the following:

- Assurance and Audit Procedure AAP01d

A copy of the information produced by following this procedure should be stored in the Project Safety and Environmental Cases as appropriate.

9 RECOMMENDED TOOLS AND FORMS

a. **Form AAP01c/F/01** – Record of Audit Meeting.

10 GUIDANCE

10.1 General

10.1.1 JSPs 375, 418, 430, 454, 518, 520, 525, 538, 55x series, ES(Air)BP1201 and the SHEF audit manual all include information on auditing. The ISO14000 series is useful, particularly ISO14001 and ISO14004, and also OHSAS 18001 and ISO 19011.

10.1.2 Although audits of Customer 2 are out with the scope of the system audits, information provided by Customer 2 which relates to SMS and EMS requirements or the safety and environmental performance of the equipment (e.g. objectives and targets and operational controls) should be included in the audit.

10.1.3 If an IPT already has a project management system or procedures (eg ISO 9000) that cover system auditing, then these may be used in place of these POSMS and POEMS procedures so long as ASESG is satisfied that they meet the same objectives.

10.1.4 Further guidance on the application of this procedure can be obtained from ASESG. The Institute of Environmental Management and Assessment (IEMA) and Institution of Occupational Safety and Health (IOSH) are professional bodies in environmental and safety auditing respectively and may produce useful information on auditing. (Further information can be found at http://www.iema.net & http://www.iosh.co.uk).

10.2 Aligning Safety and Environment

10.2.1 The key alignment opportunity in this procedure is to plan safety and environmental audits together, where this is practical and beneficial.

10.3 Guidance for ASESG

10.3.1 In addition to completing sample audits of IPTs' SMS and EMSs, ASESG should ensure that audits are performed that check ASESG's compliance with those procedures that apply directly to it eg SSP01b, SSP02b, SSP03b.

10.4 Warnings and Potential Project Risks

10.4.1 If audits are not completed or are incomplete there is an increased risk that an IPT's SMS or EMS does not achieve its objectives. This may lead to increased safety and environmental risks associated with the project. It may also lead to delays and cost impacts if shortcomings in the SMS and/or EMS are identified late, because rework may be required or approvals may be delayed.

Form AAP01/F/01 – Record of Audit Meeting			
Project(s) Title			
IPT:			
Audit title or ref:			
Completed by:		**Date:**	
Reviewed by:		**Date:**	
Date of meeting:			
Location of meeting:			
Attendees:			
Minutes:			

0 SHOWING CONFORMANCE

0.1 Options

0.1.1 There are three options to demonstrate conformance when applying this system procedure:

a. Follow the defined system procedure using the recommended guidance and tools, including allowed variations and options.

b. Use an equivalent process and tool set generated elsewhere and document evidence of procedural equivalence.

c. Use an equivalent bespoke process and tool set for the project and document evidence of procedural equivalence.

1 INTRODUCTION

1.1.1 This fourth and final System Audit procedure deals with the activities to be conducted after the on-site audit has been completed.

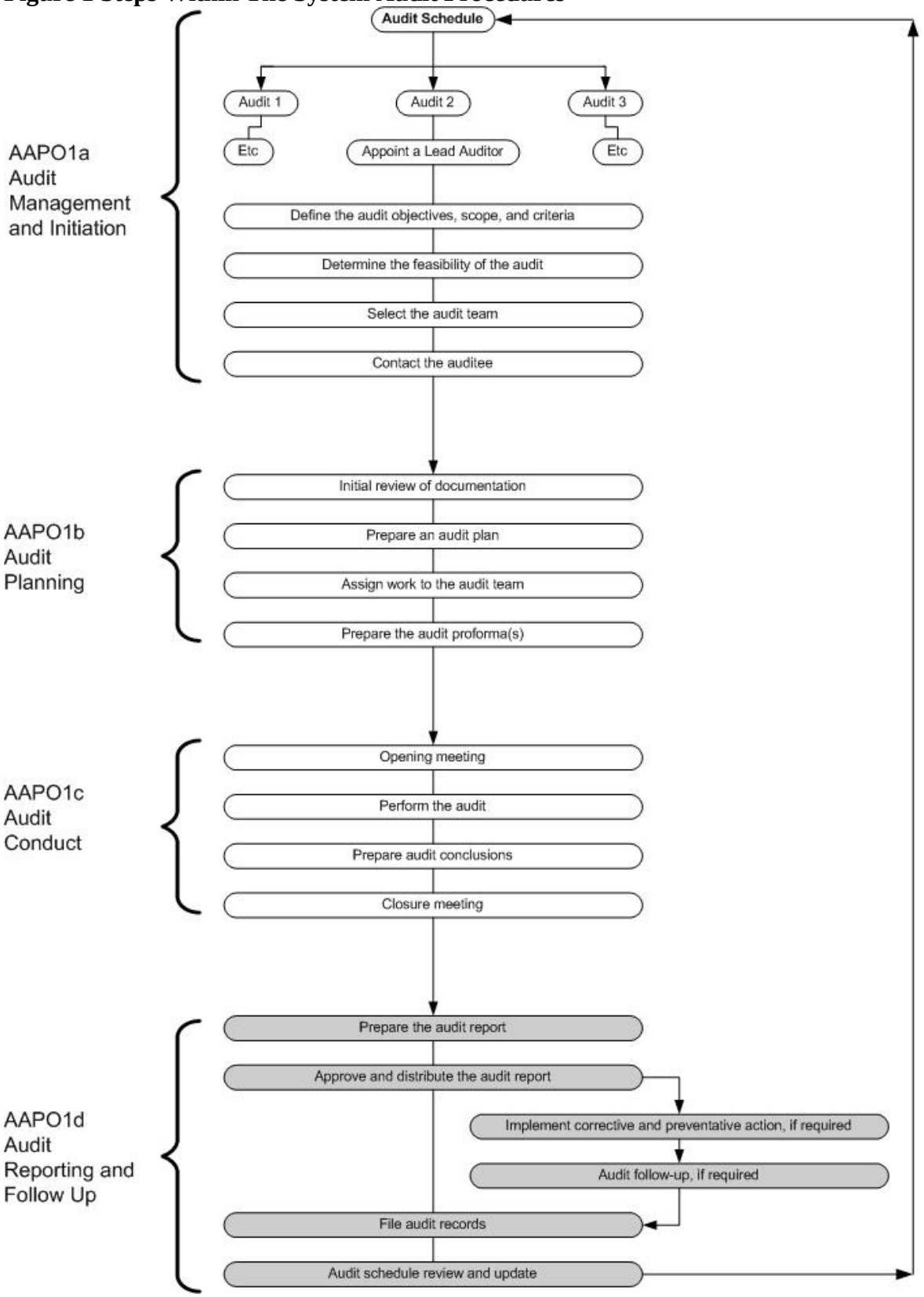
1.1.2 Although this and the companion procedures have been produced primarily for use by and on behalf of IPTs, they may also be used by ASESG to carry out audits on the SMS and EMS. In addition, other parties may also use these procedures for auditing all or parts of an IPT's SMS and EMS such as:

- Functional Safety Board Secretariats;
- DS&C;
- Third Parties invited by CDL/CDP;
- Independent Safety Auditors;
- MOD and TLB Internal Audit Functions;
- Equipment system contractor;
- Personnel seconded from another IPT;
- Customer 2;
- SME;
- Environmental and Safety Consultants.

1.1.3 Any third party using these procedures should note that they have primarily been written for use by IPTs and therefore may use terminology specific to IPTs. However, this should not preclude a third party from using the procedures.

1.1.4 Throughout the procedures the term 'Audit Client' has been used to describe the group, organisation or individual commissioning an audit, as this may be distinct from the party carrying out the audit.

Figure 1 Steps Within The System Audit Procedures



2 PROCEDURE OBJECTIVES

2.1.1 The objectives of this procedure are to:

- Produce and circulate an Audit Report and summary report, once authorised;
- Ensure that audit records are stored and communicated appropriately;
- Ensure that audit follow-up is planned and that the audit schedule is updated;
- Ensure that any audit reports and summaries are provided to ASESG.

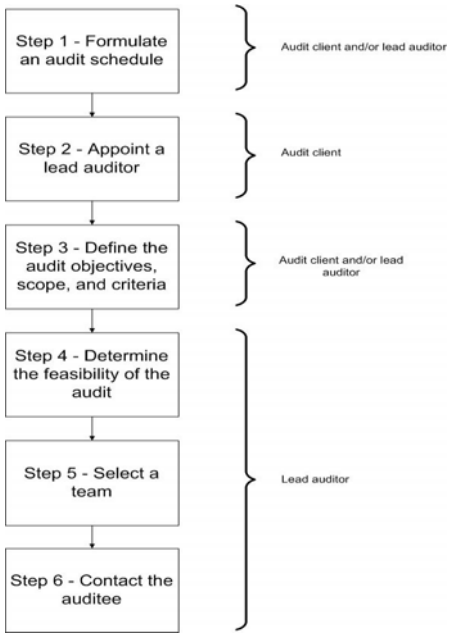
3 RESPONSIBILITIES

3.1 Accountability

3.1.1 The Audit Client is accountable for the completion of this procedure.

3.2 Procedure Management and Procedure Completion

3.2.1 The diagram below shows the steps described in the Description section of this procedure against those parties or individuals that may be responsible for their completion.



The Lead Auditor may delegate tasks to members of the Audit Team in regards to the management and completion of this procedure.

4 WHEN

4.1.1 This procedure should be conducted once the on-site audit has been completed, as defined in Procedure AAP01c.

5 REQUIRED INPUTS

- **Form AAP01b/F/01** Audit Plan;
- **Form AAP01b/F/02** Audit Pro-forma(s);
- **Form AAP04/F/01** Non-conformance and Corrective Action Form(s), if relevant (partly complete).
- IPT documentation relevant to the audit;
- **Form AAP01c/F/01 -** Audit meeting records

6 REQUIRED OUTPUTS

Audit Report (based on **Form AAP01d/F/01 -** Audit Report Template)

Form AAP01d/F/02 – Audit Report Summary

Form AAP04/F/01 - Non-conformance and Corrective Action Form(s), if relevant – (fully completed)

OR

Equivalent actions and documentation that ASESG is satisfied achieve the same objectives.

7 DESCRIPTION

7.1 Step 1 - Prepare the Audit Report

7.1.1 On completion of the audit an Audit Report should be drafted as agreed between the Lead Auditor and Audit Client. The Lead Auditor will be responsible for the preparation and content of this report. Where the audit covered safety and environmental issues, the Audit Client can request that these are reported separately.

7.1.2 An Audit Report will contain the following:

- Introduction and background to the audit;
- Audit dates and locations; (Available from **AAP01b/F/01** – Audit Plan)
- Audit scope, criteria and objectives; (Available from **AAP01b/F/01** – Audit Plan)
- Description of audit approach and methodology;
- Audit Client;
- Audit Team; (Available from **AAP01b/F/01** – Audit Plan)
- Areas of strength and areas for improvement;
- Audit findings;
- Conclusions; and

- The confidential nature of the contents.

7.1.3 The Audit Report may also include the following, as appropriate and agreed with the Audit Client:

- Audit limitations (e.g. situations encountered during the audit that may decrease the reliance that can be placed on the audit conclusions; areas not covered, although within the audit scope)
- Any unresolved diverging opinions between the Audit Team and the Auditee;
- Recommendations for improvement, where the Audit Client has specified in the audit objectives that this is required as part of the audit;
- Agreed follow-up action plans, (e.g. follow-up meeting), where specified in the audit objectives; and
- Annexes;
  - Audit Team Composition and Competence Record Form (Form **AAP01a/F/02**);
  - Audit Plan (Form **AAP01b/F/01**);
  - Audit Pro-formas (Form **AAP01b/F/02**);
  - Non-conformance and Corrective Action Forms (Form **AAP04/F/01**)
  - Opening and closing meeting minutes

Form AAP01d/F/01 can be used to document the Audit Report.

7.1.4 An Audit Summary Report should also be produced. This should be a maximum of 2 pages, be structured in the same way as the Audit Report and be able to stand alone. **Form AAP01d/F/02** can be used to document the Audit Report Summary.

7.1.5 The contents of the report should be easy to understand, concise and unambiguous. It should contain only that information which is supported by relevant audit evidence, and be independent, objective, fair and constructive. The Lead Auditor should consider the report's target audience and that it may be made publicly available under the Environmental Information Regulations or the Freedom of Information Act at some point in the future. The IPT should refer to its Register of Stakeholders (EMP01/F/01 and SMP01/F/02) to identify which stakeholders should receive a copy of the Audit Report or Audit Summary Report.

7.2 Step 2 - Approve and distribute the audit report

7.2.1 Upon completion of the draft Audit Report, the Lead Auditor should forward the report to the Auditee for review and approval. The purpose of this review is to check for factual errors and not to negotiate the report's content. The Lead Auditor should propose a reasonable time by which the comments should be provided. The audit report should be finalised within 2 weeks to 1 month of receiving the comments.

7.2.2 The Lead Auditor should forward a copy of the dated final audit report to the Auditee, Audit Client, ASESG and other agreed recipients. The Lead Auditor should issue a copy of the Summary Audit Report to the IPT Team Leader and ASESG.

7.3 Step 3 – Implement corrective/preventive actions

7.3.1 After the final Audit Report has been issued, the Auditee should record non-conformance, observations, and (where specified in the audit objectives) recommended corrective and preventive action using Form AAP04/F/01.

7.3.2 Procedure AAP04 should be used to manage non-conformances and observations, noting the following:

- The Audit Client and/or Lead Auditor should review the corrective and preventive actions planned by the Auditee to ensure that they appropriately address the non-conformances raised. In the event that these are not considered to be acceptable, the Audit Client will contact the Auditee to agree an acceptable course of action. Should this not be agreed, then the matter may be referred to ASESG for resolution.
- The Auditee should keep the Audit Client informed of the status of the progress of corrective and preventive actions.

7.4 Step 4 – Audit follow-up

7.4.1 The completion and effectiveness of corrective and preventive actions for identified non-conformances should be verified. The verification can be completed in a number of ways, for example the follow up could be:

- part of the current audit;
- a separate task; or
- integrated within the next appropriate audit.

7.4.2 The results of the verification should be filed with the Audit Report. On completion of the follow-up tasks, the Audit Client will arrange for a copy of the non-conformance close out report to be sent to the Auditee and any other persons to whom the original audit report was sent.

7.5 Step 5 – File audit records

7.5.1 Documents pertaining to the audit should be retained or destroyed by agreement between the participating parties and in accordance with the management system(s) record procedure(s) and applicable statutory, regulatory and contractual requirements. The IPT should keep audit records within the Safety/Environment Case and issue a copy of the Audit Summary Report (and close out reports) to the ASESG.

7.6 Step 6 – Audit schedule review and update

7.6.1 On completion of Step 5 above, the Audit Schedule should be reviewed and where necessary modified.

8 RECORDS AND PROJECT DOCUMENTATION

8.1.1 Where relevant, the outputs from this procedure should feed into the following:

Form AAP01a/F/01 - Audit Schedule;

AAP02 – Monitoring and Measurement;

AAP03 – Management Review; and

AAP04 – Non-conformance and Corrective Action.

8.1.2 A copy of the information produced by following this procedure should be stored in the Project Safety and Environmental Case(s).

9 RECOMMENDED TOOLS AND FORMS

Form AAP01d/F/01 - Audit Report Template

Form AAP01d/F/02 – Audit Summary Report Template

Form AAP04/F/01 – Non-Conformance and Corrective Action Report Form – fully completed.

10 GUIDANCE

10.1 General

10.1.1 JSPs 375, 418, 430, 454, 518, 520, 525, 538, 55x series, ES(Air)BP1201 and the SHEF audit manual all include information on auditing. The ISO14000 series is useful, particularly ISO14001 and ISO14004, and also OHSAS 18001 and ISO 19011.

10.1.2 Although audits of Customer 2 are outwith the scope of the system audits, information provided by Customer 2 which relates to SMS and EMS requirements or the safety and environmental performance of the equipment (e.g. objectives and targets and operational controls) should be included in the audit.

10.1.3 If an IPT already has a project management system or procedures (eg ISO 9000) that cover system auditing, then these may be used in place of these POSMS and POEMS procedures so long as ASESG is satisfied that they meet the same objectives.

10.1.4 Further guidance on the application of this procedure can be obtained from ASESG. The Institute of Environmental Management and Assessment (IEMA) and Institution of Occupational Safety and Health (IOSH) are professional bodies in environmental and safety auditing respectively and may produce useful information on auditing. (Further information can be found at http://www.iema.net & http://www.iosh.co.uk).

10.2 Aligning Safety and Environment

10.2.1 The key alignment opportunity in this procedure is to plan safety and environmental audits together, where this is practical and beneficial.

10.3 Guidance for ASESG

10.3.1 In addition to completing sample audits of IPTs' SMS and EMSs, ASESG should ensure that audits are performed that check ASESG's compliance with those procedures that apply directly to it eg SSP01b, SSP02b, SSP03b.

10.4 Warnings and Potential Project Risks

10.4.1 If audits are not completed or are incomplete there is an increased risk that an IPT's SMS or EMS does not achieve its objectives. This may lead to increased safety and environmental risks associated with the project. It may also lead to delays and cost impacts if shortcomings in the SMS and/or EMS are identified late, because rework may be required or approvals may be delayed.

Form AAP01d/F/01 - Audit Report Template			
Project Security classification:			
Project(s) Title			
IPT:			
Completed by:		**Date:**	
Reviewed by:		**Date:**	
Audit title and ref			
Audit client:			
Audit team:			
Audit dates:			
Audit locations:			
Audit scope, criteria and objectives:			
Description of approach and methodology:			
Areas of strength:			
Areas for improvement:			
Audit findings:			
Conclusions:			
Additional information:			

If appropriate and agreed with the Auditee, the following may also be provided	
Audit limitations:	
Any unresolved issues between auditor/auditee	
Recommendations for improvement (if required by Audit client)	
Agreed follow up plans (if specified in the audit objectives)	
Annexes:	Please indicate whether the audit report contains the following annexes – (If not included please indicate why)
Audit team composition form:	
Audit team competency record form:	
Audit plan:	
Audit Pro-formas	
Non-conformance, Observation, Corrective and Preventive action forms	
Opening and closing meeting minutes	

Form AAP01d/F/02- Audit Report Summary			
Project Security classification:			
Project(s) Title			
IPT:			
Completed by:		**Date:**	
Reviewed by:		**Date:**	
Audit title and ref			
Audit client:			
Audit team:			
Audit dates:			
Audit locations:			
Audit scope, criteria and objectives			
Description of approach and methodology:			
Areas of strength:			
Areas for improvement:			
Audit findings:			
Conclusions:			
Additional information:			

0 SHOWING CONFORMANCE

0.1 Options

0.1.1 There are three options to demonstrate conformance when applying this system procedure:

a. Follow the defined system procedure using the recommended guidance and tools, including allowed variations and options.

b. Use an equivalent process and tool set generated elsewhere and document evidence of procedural equivalence.

c. Use an equivalent bespoke process and tool set for the project and document evidence of procedural equivalence.

1 INTRODUCTION

1.1.1 It is important that measures are put in place to ensure that gaps and deviances (known as non-conformances), in the operation of the SMS and EMS are identified and where necessary corrected, and prevented from recurring. It is also beneficial for measures to be put in place to capture and address areas of potential improvement which have been identified (Observations). Non-conformances and observations are equally important to the SMS and EMS documentation and records, as they are to the equipment's safety and environmental performance.

1.1.2 Non-conformances and observations are most likely to be identified by IPT staff, auditors and the equipment users, but may also be highlighted by external parties or become apparent through an accident or incident. It is essential that the IPT has a process for capturing details of the non-conformances and observations and using this to continually improve both the Management Systems' and the equipment's performance.

1.1.3 Further information on how this procedure interacts with other non-conformance system is provided in the Guidance section at the end of this procedure.

2 PROCEDURE OBJECTIVES

2.1.1 To ensure that gaps, inaccuracies and improvements in the IPTs' SMS and EMS, and equipment's safety and environmental performance are identified, reported and then investigated and recorded.

2.1.2 To ensure that corrective, preventive and improvement actions are planned, implemented and recorded.

3 RESPONSIBILITIES

3.1 Accountability

3.1.1 The IPTL is accountable for the completion of this procedure.

3.2 Procedure Management

3.2.1 IPTLs may delegate the management of this procedure to the IPT Safety and Environmental Focal Point(s).

3.3 Procedure Completion

3.3.1 The diagram below shows the steps described in the Description section of this procedure against those parties or individuals that may be responsible for their completion.

3.3.2 Where a contractor is responsible for operating part of the SMS or EMS, they will also have a role in the completion of this procedure. Where tasked by the IPT, the contractor can take on the role of the Safety and Environmental Focal Point(s) and subsequently operate the management system on behalf of the IPT.

4 WHEN

4.1.1 This procedure applies as soon as the IPT starts to implement its SMS or EMS, as non-conformances can surface as soon as the first elements of the management systems have been implemented. The procedure will continue to apply until the end of the project(s) to which the SMS and EMS apply.

5 REQUIRED INPUTS

a. Results of internal and external audits (see AAP01);

b. Internal and external communications regarding the IPT's safety and environmental management system(s), including suggestions for improvement. (See SSP01)

c. Internal and external communications regarding the equipment's safety and environmental performance, including complaints. (See SSP01)

d. Results of Monitoring and Measurement (See AAP03)

e. Results of Management Reviews (See AAP03)

6 REQUIRED OUTPUTS

a. Completed **Form AAP04/F/01** – Non-Conformance and corrective action record.

OR

Equivalent actions and documentation that ASESG is satisfied achieve the same objectives.

7 DESCRIPTION

7.1 Introduction

7.1.1 A non-conformance is a situation that does not comply with the requirements of one or more of the following:

- POSMS, POEMS or functional safety management policy;
- IPT's SMS and EMS;
- Applicable safety or environmental legal and non-legal standards; or
- Equipment safety or environmental performance.

7.1.2 An observation can also be identified in the above areas. An observation is an identified improvement or need for improvement which does not relate to a conformance issues but may otherwise be of benefit. It can also be used to note good practice which may be of benefit to other parties conducting similar activities.

7.1.3 The following steps define a system for identifying, reporting, investigating, actioning and recording non-conformances and observations.

7.2 Step 1: Identify non-conformance or observation

7.2.1 Non-conformances can be identified in a number of ways:

- As a result of system audits (see AAP01) or equipment audits;

- As a result of accidents, incidents and near-misses;
- From internal and external communications, including suggestions and complaints (see SSP01);
- As a result of monitoring and measurement (See AAP03);
- As a result of management reviews (See AAP03).

7.2.2 A non-conformance or observation can be identified and reported by a member of the IPT, internal or external auditors, Customer 2, contractors, regulatory authorities or members of the public. In fact, non-conformances or observations can be identified and reported by anyone who has a role or interest in the safety and environmental issues of the equipment.

7.2.3 When a potential or actual non-conformance is identified it must be recorded. **Form AAP04/F/01** – Non-conformance and corrective action record form can be used to do this. This records details of the non-conformance, including its severity and how it was identified, by whom and when. Non-conformances will be classified as either major or minor, as shown below:

7.2.4 Major non-conformance:

- An absence of control/system where they are required;
- Where the control/system is in place but there are significant failing/inadequacies; * or
- Issue otherwise requiring urgent attention.

7.2.5 Minor non-conformance:

- Where the control/system are in place but there are non-significant failing/inadequacies; * or
- Where there is a minor breach of controls/procedures which could cause a problem if no corrective action to be taken

* where more than one failing/inadequacies are identified but are significantly related, these can be managed as one non-conformance

7.3 Step 2: Investigate non-conformance or observation

7.3.1 Non-conformances will be investigated to establish whether there is potential for recurrence. This investigation will try to answer the following questions:

- What happened?
- Why did it happen?
- Who or what was responsible?
- How serious was the actual and potential consequence(s)?
- Could this happen again? If yes, how likely is this?

- How could this situation be avoided in future?

7.3.2 The results of the investigation will be recorded on the **Form AAP04/F/01** – Non-conformance and corrective action record form.

7.3.3 Observations will be investigated to establish whether the identified area for improvement is justified and feasible.

7.3.4 The Safety and Environmental Focal Point(s) will normally undertake the investigations, or they may assign an alterative person to complete the task, for example, a person who works in the area where the non-conformance or observation has been identified.

7.3.5 Alternatively, an IPT may decide to ask ASESG, an independent safety consultant, or SME to undertake the work where assistance is required in the task, or where proving objectivity is important.

7.4 Step 3: Recommended Corrective, Preventive or Improvement Action

7.4.1 The person who undertakes the investigation will identify one or more recommended course of action.

7.4.2 It should be noted that where a non-conformance or observation has been identified in a system audit, a recommended action may also be identified by an auditor. They may provide recommended actions without undertaking the investigation stage detailed in Step 2 above. In this case the Safety and Environmental Focal Point(s) may decide to undertake Step 2 above, before confirming the course of action to be taken.

7.4.3 It is possible to decide that no action will be taken in relation to observations, for example if it is considered not practical or cost effective to implement an improvement. Justification for all decisions taken is to be recorded.

7.5 Step 4: Decide Action to be taken

7.5.1 The investigation will have identified one or more ways of mitigating and/or avoiding a recurrence of the non-conformance, or possible improvements to address an observation. This may include changes to SMS or EMS documentation, or operational control, or it may identify a training need.

7.5.2 It is not mandatory to undertake the recommended action when an alternative action can be identified. This particularly applies where actions have been recommended by auditors who have not completed the investigation stage prior to providing a recommended action. When deciding what corrective and preventive action will be taken, it is important to ensure that the action is proportional to the seriousness of the non-conformance.

7.5.3 Where the non-conformance applies to an area outside the IPT's control, it is appropriate for an action to be raised regarding communicating the presence of the non-conformance to the party concerned. For example, where Customer 2 has not complied with a documented safety or environmental objective or operational control, it would be necessary to inform them of this. In this situation Customer 2 would be

required to keep the IPT informed of progress in addressing the non-conformance (which would feed into AAP03 – Monitoring and Measurement), although auditing the effectiveness of the action would be outside the remit of the IPT.

7.5.4 The Safety and Environmental Focal Point(s) and the manager of the areas in which the non-conformance or observation was identified, will decide the action to be taken. For particularly sensitive or major non-conformances/observations it is recommended that the Safety and/or Environmental Committee(s) is involved in deciding, or endorsing the action to be taken.

7.5.5 Once appropriate actions have been identified, responsibility for ensuring that they are carried out must be assigned, along with a timetable for implementation. This can be documented in **Form AAP04/F/01** – Non-conformance and corrective action record form.

7.5.6 For observations it is possible that no action will be taken, for example if it is considered not practical or cost effective to implement an improvement.

7.5.7 AAP04 – Monitoring and Measurement procedure will track progress of the decided action to be taken.

7.6 Step 5 Review and update of documentation

7.6.1 On completion of Step 4 above, the audit schedule (**Form AAP01/F/01** – Audit Schedule) should be reviewed and modified to ensure that, checking the effectiveness of actions, is included in future audits.

7.6.2 Where the non-conformance was associated with an incident, accident or near-miss, then the Safety Hazard Log (SMP11) and/or Environmental Features Matrix **(Form EMP02/F/01)** should be reviewed and possibly revised, as it may be necessary to increase the probability rating, or to even insert the hazard if it was not identified already.

8 RECORDS AND PROJECT DOCUMENTATION

8.1.1 Where relevant, the outputs from this procedure should feed into the following:

a. **Form AAP01/F/01** – Audit Schedule;

b. Management Reviews (See AAP03); and

c. Monitoring and Measurement (See AAP03).

8.1.2 A copy of the information produced from following this procedure should be stored in the Project Safety and Environmental Case.

9 RECOMMENDED TOOLS AND FORMS

a. **Form AAP04/F/01** – Non-conformance and corrective action record.

10 GUIDANCE

10.1 General

10.1.1 JSP 418, 454, 520, 375, 442, 430, 553 include guidance on non-conformance, corrective and preventive action. The ISO14000 series is useful, particularly ISO14001 and ISO14004, and also OHSAS 18001 and ISO 19011.

10.1.2 It should be noted that JSP 442 – Accident Reporting System, covers the procedure which should be followed when reporting serious safety and environmental incidents, accidents or near misses. Where this procedure applies, the Accident Reporting Form shown in JSP 442 must be completed in addition to **Form AAP04/F/01** as the latter Form documents the completion of corrective and preventive action.

10.1.3 There may be other systems which must be followed in the event of an incident, accident or near miss, for example, D LOG (Strike) BP 1301 – reporting and Monitoring of Airworthiness matters and services occurrences. Where these systems cover all the issues documented in **Form AAP04/F/01**, there is no need to complete Form **AAP04/F/01**.

10.1.4 Where a safety and environmental non-conformance has been identified by Customer 2, details of the non-conformance, investigations completed and corrective and preventive action undertaken should be communicated to the IPT in order for it to review whether and how this affects the SMS and EMS.

10.1.5 Where the IPT has identified non-conformance associated with Customer 2, corrective, preventative action will generally involve the communication of the issue to Customer 2 for action, as they are outside the scope of the SMS and EMS and outside the direct control of the IPT.

10.2 Aligning safety and environment

10.2.1 The key alignment opportunity in this procedure is to ensure that both safety and environmental issues are considered when deciding upon corrective or preventive action. It is important to ensure that any safety implications of environmental changes are considered and vice versa.

10.3 Warnings and Potential Project Risks

10.3.1 If non-conformances are not recorded and responded to, there is a risk that they may reoccur. The outcome could be more serious next time, so near misses must be recorded, assessed and addressed.

Form AAP04/F/01 – Non-Conformance and Corrective Action Form	
Project(s) Title	
IPT:	
Non-Conformance or Observation	
Non-conformance/ Observation	Major non-conformance / Minor non-conformance / Observation
Details of the non-conformance/observation (including how identified)**:**	
Identified by:	
Date Identified:	
Investigation (If appropriate)	
Completed by:	
Date:	
Details of investigation: (e.g. Why did it happen? Who or what was responsible? How serious were the actual and potential consequence(s)? Any immediate corrective action already taken?	
What is the likelihood of this happening again?	Not Possible / Unlikely / Likely / Very Likely / Almost Certain

Recommended Corrective, Preventive or Improvement Action		
Completed by:		
Date:		
Recommended corrective, and or, preventative action:		
Action to be taken		
Action	**Person responsible**	**Deadline**
Closure		
Completed by:		
Date:		

9. Glossary and Abbreviations

9.0.1 Note that for reasons of consistency and ease of reference, this section is common to both the POSMS and POEMS and therefore covers terminology and abbreviations used in both environmental and safety management.

9.1 Glossary

Accident	An unintended event, or sequence of events, that causes harm. [Def Stan 00-56 Issue 3].
Accident Sequence	The progression of events that results in an accident. [Def Stan 00-56 Issue 3].
Acquired Item	In the context of this manual, 'acquired item' refers to a capability being procured through the acquisition process. It is intended to differentiate between the system being procured and the safety management system.
Activity	The operations of an organization that are 'large enough for meaningful examination and small enough to be sufficiently understood'. For example, vehicle maintenance.
ALARP	As Low As Reasonably Practicable. Used in reference to safety management. A risk is ALARP when it has been demonstrated that the cost of any further Risk Reduction, where the cost includes the loss of defence capability as well as financial or other resource costs, is grossly disproportionate to the benefit obtained from that Risk Reduction. [Def Stan 00-56 Issue 3].
Assumption	An assertion about the system, its operating environment or modes of use, that is employed without proof, although justification may be required. [Def Stan 00-56 Issue 3].
Assurance	A statement, or process, intended to provide confidence on the condition or status of a system, process, activity, or materiel. Types of assurance include: • **Regulatory Assurance** - A statement, or process, intended to provide confidence to a regulatory body on the condition or status of a system, process, activity, or materiel through a regulation or approval regime. • **Safety Assurance** - Part of Safety Management focused on providing confidence that adequate safety will be achieved and sustained.

Audit	A systematic independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled. (ISO 19011) Types of audit include: • **First Party Audit** – An audit conducted by an organisation on the activities it has direct responsibilities for. (19011) • **Second Party Audit** – An external audit by a body or organisation having an interest in the activity or process examined, e.g. a customer or client. (19011) • **Third Party Audit** – An external audit by a recognised independent auditing organisation with no interest in the activity or process examined. (19011) • **Capability Performance Audit** – An audit of a capability or equipment system to provide assurance that the performance objectives or targets of the capability are being achieved. • **Combined Audit** – An audit the scope of which covers more than one management system operated by the organisation, or related to an activity, being examined. (19011) • **Compliance Audit** – An audit to provide assurance that a process, activity, or materiel is carried out or achieved in such a manner as to achieve compliance with legal, policy or other requirements; i.e. the audit criteria are restricted to compliance issues within the scope of the audit. • **Joint Audit** – An audit conducted by two or more auditing organisations. (19011) • **Management System Audit** – An audit the scope of which includes the process and procedures making up the whole or part of a formalised management system. • **Supplier Audit (pre contract)** – An audit conducted pre-award of a contract to provide assurance evidence that a supplier has management systems in place which can or do comply with MOD requirements. • **Supplier Audit (post contract)** – An audit of a supplier post award of contract to provide assurance that the goods or services being provided, or that a supplier's management systems, are in conformance with MOD requirements.
Audit Client	The person/project/IPT/organisation requesting the audit.
Audit Conclusion	Outcome of an audit, provided by the audit team after consideration of audit objectives and all audit findings (ISO 19011)
Audit Criteria	Set of policies, procedures or requirements (ISO 19011) against which a system process or material is audited
Audit Objectives	Statement(s) setting out the purpose and aims of the audit. These should be set by, or agreed with, the audit client and should form the basis for the audit scope and criteria.

Audit Plan	Description of the activities and arrangements for an audit. (ISO19011)
Audit Programme	In relation to DLO & DPA Acquisition Safety Environmental Management System (ASEMS) this audit manual together with the Audit Schedule forms an Audit Programme.
Audit Report	The written report supplied by the Lead Auditor to the Audit Client describing the audit, findings and conclusions.
Audit Schedule	Specifies the scope, frequency and timeframe for completing audits
Audit Scope	Extent and boundaries of an audit. (ISO19011)
Audit Team	Team of auditors, including a lead auditor, conducting an audit. May also include specialist matter experts (see SMEs) and trainee auditors.
Audit Trail	Series of linked and related questions asked, and the evidence produced, in order to ascertain compliance against a specific objective or to support the accuracy of data or claims. The questions and evidence making up an audit trail should be documented and the trail should be repeatable.
Auditee	The individual or organisation being subject to audit.
Auditor	Person with the competence to conduct an audit. (ISO19011) (see also Lead Auditor)
Availability	The ability of an item to be in a state to perform a required function under given conditions at a given instant of time or over a given time interval assuming that the required external resources are provided. [Def Stan 00-56 Issue 3].
Best Available Technique	A term used with reference to environmental management. The most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole. [The Pollution Prevention and Control (England and Wales) Regulations 2000 SI No 1973].
Best Practicable Environmental Option	A term used with reference to environmental management. The outcome of a systematic consultative decision making procedure that emphasises the protection of the environment across land, air and water. [The Royal Commission on Environmental Pollution, 12th report, 1988].
Best Practicable Means	In this term, 'practicable' means reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to the financial implications. [Environmental Protection Act 1990].

'Black Box'	Having visibility of only the externally visible performance and interfaces. [Def Stan 00-56 Issue 3].
Broadly Acceptable	A level of risk that is sufficiently low that it may be tolerated without the need to demonstrate that the risk is ALARP. [Def Stan 00-56 Issue 3].
Cause	The origin, sequence or combination of circumstances leading to an event. [Def Stan 00-56 Issue 3].
Competence	Demonstrated personal attributes and demonstrated ability to apply knowledge and skills. (ISO19011)
Complex Electronic Equipment	An element of a system that is implemented in software or custom hardware. [Def Stan 00-56 Issue 3].
Consequence	The outcome, or outcomes, resulting from an event. [Def Stan 00-56 Issue 3].
Continual Improvement	In terms of safety: Process of enhancing OH&S management system, to achieve improvements in overall occupational health and safety performances, in line with the organization's OH&S policy. [OHSAS 18001:1999]. In terms of environment: Process of enhancing the environmental management system to achieve improvements in overall environmental performance in line with the organization's environmental policy. [EN ISO14001:1996]
Controlled Documents	Any documents forming part of the Safety or Environmental Management Systems that are subject to document control procedures eg Safety or Environmental Manual, System Procedures.
Counter Evidence	Evidence that has the potential to refute specific safety claims. [Def Stan 00-56 Issue 3].
Custom Hardware	Electronic components for which the design can be controlled or influenced by the Duty Holder or the Contractor. [Def Stan 00-56 Issue 3].
Demonstration Evidence	Evidence of the properties of a system, or an element of a system, achieved by testing, trials or operational execution. [Def Stan 00-56 Issue 3].
Direct Evidence	Evidence of the properties of a system, or an element of a system, that is obtained directly from testing analysis, experience of use or inspection of the system. [Def Stan 00-56 Issue 3].
Diverse Evidence	Evidence of the properties of a system, or an element of a system, that is based on mutually independent, but reinforcing, pieces of evidence. [Def Stan 00-56 Issue 3].

Duty Holder	A person with specific responsibilities for the safety management of the system. [Def Stan 00-56 Issue 3].
Empirical Evidence	Evidence of the properties of a system, or an element of a system, that is based on experience or observation rather than theory. [Def Stan 00-56 Issue 3].
Enforcing Authority	The authority responsible for enforcing environmental legislation eg Environment Agency, local authorities.
Environment	Surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans and their interrelation. NOTE: Surroundings in this context extend from within an organization to the global system. [EN ISO 14001:1996]
Environmental Aspect	Element of an organization's activities, products or services that can interact with the environment'. NOTE: A significant environmental aspect is an environmental aspect that has or can have a significant environmental impact [EN ISO 14001:1996] (For example, vehicle exhaust emissions.)
Environmental Case	A body of evidence that is compiled and maintained throughout the lifetime of a project on the environmental aspects and impacts
Environmental Case Report	A report that summarises the arguments and evidence of the Environmental Case, and documents progress against the environment programme. Note that in many cases this report may be the Environmental Impact Statement.
Environmental Feature Matrix	The matrix produced through following EMP02 and EMP04 which records material and energy inputs and outputs, the associated environmental impacts and the priority accorded to the impact.
Environmental Hazard	A threat to the environment posed by an environmental aspect.
Environmental Impact	Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's activities, products or services. [EN ISO 14001:1996] For example, an increase or reduction in emissions to air of polluting gases as a result of transport operations is an environmental impact. Other examples include climate change, ozone depletion and river pollution.
Environmental Impact Assessment	Environmental Impact Assessment (EIA) is a process and management technique that can be applied to a project in order to identify all the environmental impacts produced by the project, their relative importance, and measures to eliminate or reduce any negative impacts identified.
Environmental Impact Assessment Plan	A document that details how and where the EIA process will be applied to a project.

Environmental Impact Assessment Policy	The document that details the implementation of MOD-wide policy on Environmental Impact Assessment within DLO and DPA.
Environmental Impact Assessment Report	The document which outlines the methodology, results and conclusions of an Environmental Impact Assessment.
Environmental Impact Screening and Scoping Report	A report produced after the initial identification of the environmental impacts associated with a project which includes reference to the information sources used to identify those impacts, an overview of the impacts, comment on which of the project stages will have the greatest impact, and which, if any, of these stages will be excluded from further assessment.
Environmental Impact Statement	The document which summarises the main points, results and conclusions of either an EISS Report or an EIA Report.
Environmental Issue	Issue for which validated information on environmental aspects deviates from selected criteria and may result in liabilities or benefits, effects on the assessee's or the client's public image or other costs." [ISO 14015:2001(E)] For example, global warming, habitat loss, depletion of ozone layer.
Environmental Log	A file containing all information on the potential or actual environmental impacts of a project.
Environmental Management Plan	A document that outlines the actions identified by an organization in order to eliminate or reduce its environmental impacts.
Environmental Management System (EMS)	The part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy. [EN ISO 14001:1996]
Environmental Panel	A group of individuals that have particular expertise relevant to the equipment system or project in question who can provide independent advice to the IPT on environmental issues related to the project.
Environmental Policy	Statement by the organization of its intentions and principles in relation to its overall environmental performance which provides a framework for action and for the setting of its environmental objectives and targets. [EN ISO 14001:1996]
Environmental Risk	A rating of the severity of an environmental hazard against the likelihood of its occurrence.
Environmental Standards	Any national or international environmental legislation, policy, agreement or initiative or any environmental policy commitment, strategy commitment or internal regulation that applies to an organization or to which an organization subscribes.

Equipment System	In the context of this manual, 'equipment system' refers to a capability being procured through the acquisition process. It is intended to differentiate between the system being procured and the environmental management system.
Error	Discrepancy between a computed, observed or measured value or condition and the true, specified or theoretically correct value or condition. [Def Stan 00-56 Issue 3].
Evidence	Records, statements or facts or other information, which are relevant to the audit criteria and verifiable (ISO 19011)
Finding	Results of the evaluation of the collected audit evidence, against audit criteria
Harm	Death, physical injury or damage to the health of people, or damage to property or the environment. [Def Stan 00-56 Issue 3].
Hazard	A physical situation or state of a system, often following from some initiating event, that may lead to an accident. [Def Stan 00-56 Issue 3].
Hazard Analysis	The process of describing in detail the hazards and accidents associated with a system, and defining accident sequences. [Def Stan 00-56 Issue 3].
Hazard Identification	The process of identifying and listing the hazards and accidents associated with a system. [Def Stan 00-56 Issue 3].
Hazard Log	The continually updated record of the hazards, accident sequences and accidents associated with a system. It includes information documenting risk management for each hazard and accident. [Def Stan 00-56 Issue 3].
Human Factors	The systematic application of relevant information about human capabilities, limitations, characteristics, behaviours and motivation to the design of systems. [Def Stan 00-56 Issue 3].
Impact Priority Evaluation	The process of assessing identified environmental impacts in order to prioritise them for further action.
Incident	The occurrence of a hazard that might have progressed to an accident, but did not. [Def Stan 00-56 Issue 3].
Independent Safety Auditor	An individual or team, from an independent organization, that undertakes audits and other assessment activities to provide assurance that safety activities comply with planned arrangements, are implemented effectively and are suitable to achieve objectives; and whether related outputs are correct, valid and fit for purpose. [Def Stan 00-56 Issue 3].
ISO14001	The international standard for Environmental Management Systems.
ISO14040	The international standard for Life Cycle Assessment.

Knowledge Base	A store of useful information on various topics, kept by ASESG for future reference.
Lead Auditor	Person recognised within the organization as having the required level of competence to manage and perform audits (See also Auditor)
Life Cycle Assessment	Compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle. [EN ISO 1440:1997].
Life Cycle Stages	The stages of acquisition through which a system passes ie CADMID.
Major non-conformance	An absence of control/system where they are required; where the control/system are in place but there is are significant failing/inadequacies; or issue requires urgent attention.
Material Risk	In terms of the EMS a material risk is something that has the capacity to effect any of the following issues: Cost, including inflated cost of achieving efficient disposal – any risk that a financial budget may be exceeded is a material risk Delays – any risk that project milestones such as the Initial Gate may be missed should be considered to be material Legal penalties – any risk of incurring legal penalties is material Reputation damage – any risk that may damage the MOD's reputation is material Environmental impairment – any risk that irreversible damage to the environment may be caused is a material risk.
Minor non-conformance	Where the control/system are in place but there are non-significant failing/inadequacies or where there is a minor breach of controls/procedures which could cause a problem if no corrective action to be taken
Mitigation Statement	A statement outlining the actions identified by an organization in order to prevent or control its environmental impact(s).
Mitigation Strategy	A measure that, when implemented, reduces risk. [Def Stan 00-56 Issue 3].
Nonconformance	Is a situation that does not comply with the requirements of one or more of the following: • POSMS or POEMS; • IPTs' SMS and EMS; • Applicable safety or environmental legal and non-legal standards; or • Equipment system safety or environmental performance.

Non-conformance and corrective action form	A document that records an observation or non-conformance, in addition to corrective, preventive and improvement action to be undertaken in relation to the observation and non-conformance.
Objectives	In terms of health and safety: Goals, in terms of OH&S performance, that an organization sets itself to achieve. [OHSAS 18001:1999]. In terms of environmental performance, objectives are an overall environmental goal, arising from the environmental policy and the evaluation of environmental aspects, that an organization sets itself to achieve, and which is quantified where practicable. In terms of environment: Overall environmental goal, arising from the environmental policy, that an organization sets itself to achieve, and which is quantified where practicable. [BS ISO 14004:1996]
Observation	Where a possible improvement or need for improvement has been identified which doe not relate to a conformance issues but may otherwise be of benefit
Occupational Health and Safety	(OH&S) – conditions and factors that affect the well being of employees, temporary workers, contractor personnel, visitors and any other person in the workplace. [OHSAS 18001:1999].
Operating Environment	The total set of all external natural and induced conditions to which a system is exposed at any given moment. [Def Stan 00-56 Issue 3].
Operational Controls	Any document, measure or system which contains elements that control an organization's operations with the aim of avoiding or reducing one or more environmental impacts.
Performance	In terms of Health and Safety: Measurable results of the OH&S management system, related to the organization's control of health and safety risks, based on its OH&S policy and objectives. [OHSAS 18001:1999]. In terms of Environment: Measurable results of the environmental management system, related to an organization's control of its environmental aspects, based on its environmental policy, objectives and targets. [EN ISO 14001:1996]
Pre-Audit Questionnaire	Questionnaire supplied by the audit leader to the organisation to be examined. Usually requires basic information regarding the organisation, personnel, and the processes or activities it manages or has responsibility for. Will also identify documents or other records that the audit team will expect to consult during the audit.

Procedure	A documented instruction which aims to ensure that the organization's environmental policy and its objectives and targets are met. These procedures will include: Environmental Management System core procedures, support procedures, assurance and audit procedures, operational control procedures and any overarching policy commitment procedures.
Process Evidence	Evidence of the properties of a system, or an element of a system, that is based on its development process. [Def Stan 00-56 Issue 3].
Project	In the context of this manual, 'project' refers to a single process that results in the acquisition of one or more equipment systems.
Qualitative Evidence	Evidence of the properties of a system, or an element of a system, that is not numerically based. [Def Stan 00-56 Issue 3].
Quantitative Evidence	Evidence of the properties of a system, or an element of a system, that is based on countable or measurable properties on a numerical scale. [Def Stan 00-56 Issue 3].
Receptor	Any organism or object that can be affected by a change in the environment eg humans, flora, fauna, buildings.
Regulatory Authority	The authority responsible for enforcing environmental legislation eg Environment Agency, local authorities.
Reliability	The probability of failure-free operation for a specified time for in a specified environment. [Def Stan 00-56 Issue 3].
Residual Risk	The risk remaining after risk reduction. [Def Stan 00-56 Issue 3].
Restricted Substance	Any substance that is controlled by law eg mercury, cadmium, PCBs.
Rigorous	Extremely thorough and accurate as well as strictly applied and followed. [Def Stan 00-56 Issue 3].
Risk	Combination of the likelihood of harm and the severity of that harm. [Def Stan 00-56 Issue 3].
Risk Acceptance	The systematic process by which relevant stakeholders agree that risks may be accepted. [Def Stan 00-56 Issue 3].
Risk Analysis	The systematic use of available information to estimate risk.
Risk and ALARP Evaluation	The systematic determination, on the basis of tolerability criteria, of whether a risk is broadly acceptable, or tolerable and ALARP, and whether any further Risk Reduction is necessary. [Def Stan 00-56 Issue 3].
Risk Estimation	The systematic use of available information to estimate risk. [Def Stan 00-56 Issue 3].

Risk Management	The systematic application of management policies, procedures and practices to the tasks of Hazard Identification, Hazard Analysis, Risk Estimation, Risk and ALARP Evaluation, Risk Reduction and Risk Acceptance. [Def Stan 00-56 Issue 3].
Risk Reduction	The systematic process of reducing risk. [Def Stan 00-56 Issue 3].
Safe	Risk has been demonstrated to have been reduced to a level that is broadly acceptable, or tolerable and ALARP, and relevant prescriptive safety requirements have been met, for a system in a given application in a given operating environment. [Def Stan 00-56 Issue 3].
Safety and Environmental Focal Point(s)	Is the person(s) who has been assigned with responsibility for overseeing the implementation and maintenance of the SMS and EMS within an IPT.
Safety Argument	A logically stated and convincingly demonstrated reason why safety requirements are met. [Def Stan 00-56 Issue 3].
Safety Audit	A systematic and independent examination to determine whether safety activities comply with planned arrangements, are implemented effectively and are suitable to achieve objectives; and whether related outputs are correct, valid and fit for purpose. [Def Stan 00-56 Issue 3].
Safety Case	A structured argument, supported by a body of evidence that provides a compelling, comprehensible and valid case that a system is safe for a given application in a given operating environment. [Def Stan 00-56 Issue 3].
Safety Case Report	A report that summarises the arguments and evidence of the Safety Case, and documents progress against the safety programme. [Def Stan 00-56 Issue 3].
Safety Claim	An assertion that contributes to the safety argument. [Def Stan 00-56 Issue 3].
Safety Committee (Safety Panel)	A group of stakeholders that exercises, oversees, reviews and endorses safety management and safety engineering activities. [Def Stan 00-56 Issue 3].
Safety Integrity Requirements	Safety requirements relating to properties of the system that contribute to resistance to dangerous failure, including (but not limited to) reliability, availability, robustness, timeliness and use of resources, as well as the degree of confidence in these properties. [Def Stan 00-56 Issue 3].
Safety Management	The application of organizational and management principles in order to achieve safety with high confidence. [Def Stan 00-56 Issue 3].
Safety Management Plan	A document that defines the strategy for addressing safety and documents the Safety Management System for a specific project. [Def Stan 00-56 Issue 3].

Safety Management System	The organizational structure, processes, procedures and methodologies that enable the direction and control of the activities necessary to meet safety requirements and safety policy objectives. [Def Stan 00-56 Issue 3]
Safety Programme	The part of the Safety Management Plan that documents safety timescales, milestones and other date-related information. [Def Stan 00-56 Issue 3].
Safety Property	An invariant that is a necessary condition for a safety requirement to be met. [[Def Stan 00-56 Issue 3].
Safety Requirement	A requirement that, once met, contributes to the safety of the system or the evidence of the safety of the system. [Def Stan 00-56 Issue 3].
Software	Intellectual creation comprising the programs, procedures, data, rules and any associated documentation pertaining to the operation of a data processing system. [Def Stan 00-56 Issue 3].
Stakeholder	Any individual or group concerned with or affected by the safety or environmental performance of an organisation.
Standards	Written specifications of the requirements of a process, system or material. Issued by standards Bodies eg ISO, BSI etc
Statutory Threshold	A maximum limit prescribed by law or legal permit for releases or emissions of particular substances to an environmental medium.
Sub- System	A system that is an element of another system. [Def Stan 00-56 Issue 3].
Subject Matter Expert (SME)	Person who has specific knowledge or expertise in a defined area. May be called upon to support the audit team.
Super-System	A system that includes at least one element that is itself a system. [Def Stan 00-56 Issue 3].
System	A combination, with defined boundaries, of elements that are used together in a defined operating environment to perform a given task or achieve a specific purpose. The elements may include personnel, procedures, materials, tools, equipment, facilities, services and/or software as appropriate. [Def Stan 00-56 Issue 3].
System Platform	A piece of equipment that acts as the fixing point for another equipment system.

Target	Detailed performance requirement, quantified where practicable, applicable to the organization or parts thereof, that arises from the safety objectives and that needs to be set and met in order to achieve those objectives. In terms of environment: Detailed performance requirement, quantified where practicable, applicable to the organization or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives. [BS ISO 14004:1996]
Tolerability Criteria	Quantitative or qualitative measures for determining whether a risk is unacceptable, tolerable or broadly acceptable. [Def Stan 00-56 Issue 3].
Tolerable	A level of risk that may be tolerated when it has been demonstrated that the risk is ALARP and is not unacceptable. [Def Stan 00-56 Issue 3].
Unacceptable	A level of risk that is tolerated only under exceptional circumstances. [Def Stan 00-56 Issue 3].
Validated Safety Argument	A safety argument with supporting evidence, that has been subjected to sufficient scrutiny to provide assurance of the robustness of the argument and evidence. [Def Stan 00-56 Issue 3].
'White Box'	Having visibility of the internal architecture, structures, features and implementation as well as the externally visible performance and interfaces. [Def Stan 00-56 Issue 3].

9.2 Abbreviations

AAP	Assurance and Audit Procedure
ALARP	As Low As Reasonably Practicable
AMP	Assisted Maintenance Period
ASEMS	Acquisition Safety and Environment Management System
ASESG	Acquisition Safety and Environmental Support Group
ATE	Army Training Estate
CADMID	An acronym describing the different phases of acquisition ie Concept, Assessment, Demonstration, Manufacture, In-service, Disposal.
CBA	Cost Benefit Analysis
CDL	Chief of Defence Logistics
CDP	Chief of Defence Procurement
CESO	Chief Environment and Safety Officer
CHASP	Central Health And Safety Project
COTS	Commercial Off The Shelf
CSA	Customer Supplier Agreement
DE	Defence Estates
DEC	Director Equipment Capability
DEFRA	Department of Environment Food and Rural Affairs
DESB	Defence Environment Safety Board
DESO	Defence Exports and Sales Organisation
DLO	Defence Logistics Agency
DLO EP	Defence Logistics Organisation Environmental Protection
DPA	Defence Procurement Agency
DSA	Defence Sales Agency
DS&C	Directorate Safety and Claims

D SMT	Department of Specialist Management Training
DTI	Department of Trade and Industry
EI	Environmental Impact
EIA PM	Environmental Impact Assessment Policy Memorandum
EIR	Environmental Information Regulations 1992
EIS	Environmental Impact Statement
EISS	Environmental Impact Screening and Scoping
EMP	Environmental Management Plan
EMS	Environmental Management System
ESMB	Environment Safety Management Board
FSB	Functional Safety Board
FSMO	Functional Safety Management Office
HI&A	Hazard Identification and Analysis
HSC	Health and Safety Commission
IEA	Independent Environmental Auditor
IEMA	Institute of Environmental Management and Assessment
IG	Initial Gate in the CADMID cycle
IOSH	Institution of Occupational Safety and Health
IPT	Integrated Project Team (also used to cover Integrated Business Team)
IPTL	Integrated Project Team Leader
IS	In-Service
ISA	Independent Safety Auditor / Assessor / Advisor (according to context)
ISO14001	International Standard for Environmental Management Systems
ISO14004	Guidance on the International Standard for Environmental Management Systems
ISO14040	International Standard for Life Cycle Assessment

JSP	Joint Service Publication
LOD	Letter of Delegation
LoD	Lines of Development
MG	Main Gate in the CADMID cycle
MOTS	Military Off The Shelf
MOU	Memorandum of Understanding
NGO	Non Government Organisation
OCP	Operational Control Procedure
OH&S	Occupational Health and Safety
OHSAS 18001:1999	Occupational Heath and Safety Management Systems – Specification
PFI	Private Finance Initiative
PHI&A	Preliminary Hazard Identification and Analysis
POEMS	Project-Oriented Environmental Management System
POSMS	Project-Oriented Safety Management System
PPP	Public Private Partnership
PR&A	Project Review and Assurance
RACI	Responsible / Accountable / Consulted / Informed (a technique to record, usually in a Table, the level of involvement of different authorities in a range of activities)
SEMIs	(DPA's) Safety and Environmental Management Instructions
SEMS	Safety Environmental Management System
SHEF	Safety Health Environment and Fire
SME	Subject Matter Expert
SMO	Safety Management Office or Officer
SMP	Safety Management Plan OR Safety Management Procedure
SMS	Safety Management System

SOP	System Operational Procedures (including Operational Procedure)
SofS	Secretary of State
SQEP	Suitably Qualified and Experienced Person(s)
SRD	System Requirement Document
SSP	System Support Procedure
TLB	Top Level Budget
TLMP	Through Life Management Plan
UOR	Urgent Operational Requirement
URD	User Requirement Document
VPF	Value of Preventing a Fatality