Ministry of Defence

Solider Training Special Programmes
Dismounted Close Combat (DCC)

# INTEGRATED LOGISTICS SUPPORT PLAN
# FOR
# SNIPER IN-LINE LOW LIGHT SYSTEM (SILLS)
# MEDIUM RANGE TARGET LOCATORS (MRTL)
## (Guidance Document for Schedule 10 – ILS Statement of Work)

Version 2.0
Dated: 11 February 2021

[REDACTED]

## Document Control

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## REFERENCE DOCUMENTATION

| Document Reference | Issue | Title |
|---|---|---|
| Defence Standard 00-600, Part 1 | Issue 2, dated 28 Sep 2020 | Integrated Logistics Support requirements for MOD projects - Part 01: Integrated Logistics Support (ILS) Requirements |
| Defence Standard 00-600, Part 3 | Issue 2, dated 28 Sep 2020 | Integrated Logistics Support requirements for MOD projects Part 03: Logistic Information Requirements |
| https://www.defencegateway.mod.uk/sites/dlf<br>*Access for the purposes of delivering this Contract is on request to the Authority* | - | Defence Logistic Framework (DLF) |
| JSP 886 Volume 7 Part 2 | Archived - Orphaned Policy | Defence Logistics Support Chain Manual Vol 7 Supportability Engineering - Integrated Logistic Support Management |
| https://www.gov.uk/guidance/knowledge-in-defence-kid | - | Knowledge in Defence (KiD) |
| MRTL Schedule 10 to Contract Number 700941372 | As defined by the Contract | MRTL ILS SOW |
| MRTL Annexes A to D to Section D to DEFFORM 47 ITT Number 700941372 | As defined by the Contract | MRTL System Requirements (SRs) |
| MRTL Schedule 02 to Contract Number 700941372 | As defined by the Contract | MRTL Schedule of Requirements - Contractor Deliverables |
| DEFFORM47 Section B to Contract Number 700941372 | As defined by the Contract | MRTL Key Tendering Activities |
| Def Stan 00-601 Part 4 | Issue 1 dated 28 Jun 2019 | MOD Business Rules – Contracting for Technical Documentation – Part: 04: Non S1000D Business Rules |
| DEFCON 82 | As defined in the Contract T&Cs | Special Procedure for Initial Spares |
| LDOC/CMO/V2.0 | Version 2 dated 28 Jun 2019 | Logistic Commodities and Services Transformation (LCST) Material Supplier Manual |
| - | 12 Jun 2020 | Concept / Assessment Phase Security Aspects Letter |
| DEFCON 117 | As defined by the Contract | Supply Of Information For NATO Codification And Defence Inventory Introduction |
| DEFCON 129 | As defined by the Contract | Packaging (for Articles other than Munitions) |
| Def Stan 05-135 | Issue 2 dated 14 Jul 2019 | Avoidance of Counterfeit Material |
| Def Stan 81-041 Part 1 | Issue 9 dated 14 Dec 2016 | Packaging of Defence Materiel Part: 1: Introduction to Defence Packaging Requirements |
| Def Stan 00-003 | 28 Feb 2017 | Design Guidance for the Transportability of Equipment |
| IEC62402 | 15 Jul 2019 | Obsolescence Management |
| Defence Standard 05-057 | Issue 7 dated 28 Jul 2018 | Configuration Management of Defence Material |
| MRTL Schedule 21 to Contract Number 700941372 | As defined by the Contract | Standards, Specifications & Conditions |

| Document Reference | Issue | Title |
|---|---|---|
| - | Sep 2017 | Configuration Management Aide Memoire |
| MRTL Schedule 12 to Contract Number 700941372 | As defined by the Contract | MRTL Post Design and Support |
| MRTL Schedule 8 to Contract Number 700941372 | As defined by the Contract | MRTL Key Acceptance Procedure |
| Def Stan 05-132 | Issue 1 dated 28 June 2017 | Marking of Service Materiel Items Using a Unique Item Identifier (UII) |
| STANAG 2290 | Edition 3 dated 21 Nov 2019 | NATO Unique Identification Of Items - AAITP-08 Edition A |

**ABBREVIATIONS**

| | |
|---|---|
| AESP | Army Equipment Support Publication |
| ASG | Acquisition System Guidance |
| ASSC | Assets Subject to Special Control |
| BC | Ballistic Calculator |
| CADMID | Concept Assessment Development Manufacture In-Service Disposal |
| CDRL | Contract Data Requirements List |
| CILSM | Contractor Integrated Logistic Support Manager |
| CLS | Contractor Logistic Support |
| CM | Configuration Management |
| CoC | Certificate of Conformity |
| COTS | Commercial Off The Shelf |
| DCC | Dismounted Close Combat |
| DCCU | Dismounted Close Combat User |
| DE&S | Defence Equipment & support |
| DEFCON | Defence Condition |
| DEFORM | Defence Form |
| DLF | Defence Logistic Framework |
| DR | Design Repository |
| DSPCR | Defence and Security Public Contract Regulations |
| EDD | Equipment delivery Date |
| EOL | End of life |
| ES | Equipment Support |
| FOC | Full Operating capability |
| GFA | Government Furnished Assets |
| GFE | Government Furnished Equipment |
| GFF | Government Furnished Facilities |
| GFI | Government Furnished Information |
| GFR | Government Furnished Resource |
| GPTME | General Purpose Test and Measurement Equipment |
| HFI | Human Factors Integration |
| IBAs | Internal Business Agreements |
| ILS | Integrated Logistic Support |
| ILSP | Integrated Logistic Support Plan |
| IP | Initial Provisioning |
| IPR | Intellectual Property Rights |
| ISP | Integrated Support Plan |
| ITAR | International Traffic in Arms Regulations |
| ITEAP | Integrated Test Evaluation and Acceptance Plan |
| ITT | Invitation To Tender |
| JSC | Joint Supply Chain |
| JSP | Joint Service Publication |
| KiD | Knowledge in Defence |
| Log Demo | Logistic Demonstration |
| LCST | Logistic Commodities and Services Transformation |
| LRU | Line Replacement Unit |
| LSD | Logistic Support Date |
| LWIR | Long Wave Infra-Red |
| MILSM | Military Integrated Logistic Support Manager |
| ML | Maintenance Level |
| MOD | Ministry of Defence |
| MWIR | Medium Wave Infra-Red |
| MRTL | Medium Range Target Locator |
| NATO | North Atlantic Treaty Organisation |
| NFF | No Fault Found |
| NSN | NATO Stock Number |
| OML | Obsolescence Management List |
| PDF | Portable Document Format |
| PDS | Post Design Services |

| | |
|---|---|
| REME | Royal Electrical Mechanical Engineers |
| R&M | Reliability & Maintainability |
| SA | Supportability Analysis |
| SAL | Security Aspects Letter |
| SFoP | Support From other Platforms |
| SILLS | Sniper In-line Low Light System |
| SOS | Software Operations Support |
| SOW | Statement of Work |
| SPTME | Special Purpose Test and Measurement Equipment |
| SRs | System Requirements |
| SS3 | Stores System 3 |
| S&TE | Support & Test Equipment |
| STANAG | Standardisation Agreement |
| SToP | Support To other Platforms |
| T3 | Train The Trainer |
| T&Cs | Terms & Conditions |
| TD | Technical Documentation |
| TDoL | Technical Documentation on Line |
| TI | Technical Information |
| TME | Test and Measurement Equipment |
| UII | Unique Item Identification |
| WBS | Breakdown Structure |
| WLC | Whole Life Cost |
| WS | Weapon Sight |

# 1. INTRODUCTION

## 1.1. PROJECT OVERVIEW

The Sniper In-Line Low Light Systems (SILLS) Project establishes the requirement to provision a new sniper system capability that allows the user to meet doctrinal requirements and includes the following scope:

a. Medium Wave Infra-Red (MWIR) Weapon Sight 1 (WS1);

b. Long Wave Infra-Red (LWIR) Weapon Sight 2 (WS2);

c. Medium Range Target Locator (MRTL) plus Tripod;

d. Ballistic Calculator (BC).

## 1.2. SINGLE STATEMENT OF USER NEED

The Sniper In-Line Low Light System provides the User with a capability that enables the Sniper Team to acquire and engage targets in low or zero light conditions, commensurate with the daylight performance of the current in-service weapon system and day sight."

## 1.3. PROCUREMENT STRATEGY

Procurement is by a Competition under Defence and Security Public Contract Regulations (DSPCR) 2011, the assessment of which is detailed in the Invitation To Tender (ITT).

## 1.4. INTEGRATED LOGISTIC SUPPORT

Integrated Logistic Support (ILS) is a management discipline that enables:

a. The best Reliability and Maintainability and hence Availability to be achieved at an optimum life cycle cost.

b. The design or selection of a product to be influenced by support considerations.

c. The identification and procurement of the most suitable support for a product.

Defence Standard (Def Stan) 00-600, defines the Ministry of Defence (MOD) requirements for the application of ILS principles in the Through Life Management (TLM) of defence equipment. It is Ministry of Defence (MOD) Policy that Integrated Logistic Support (ILS) is applied to all procurement projects, based on the tailored application of Def Stan 00-600.

The Defence Logistic Framework (DLF)[1] has replaced Joint Service Publication (JSP) 886 as the authority for defence support chain policy.

[1] The DLF is accessible via the defence gateway - https://www.defencegateway.mod.uk/sites/dlf

## 2. ILS STRATEGY

ILS is a key consideration to ensure the delivered equipment can be operated and maintained and the capability provided is available when required at optimum whole life cost of ownership.

The Authority is expecting the Contractor to put into place the infrastructure required to support the equipment and furnish the Authority with the information required to enable the equipment to be brought into service and supported through life.

As part of the bid response, the Authority requires confidence from the tenderers that:

- The ILS requirements are understood and can be satisfactorily delivered upon in the required timescales;
- The equipment is readily supportable;
- The equipment is inherently reliable and maintainable;
- The required infrastructure is in place or will be in place to support the equipment throughout the projected in-service period.

The requirements of Def Stan 00-600 apply to all ILS activities provided under the contract. The ILS Statement of Work (SOW) captures the ILS scope of work and associated deliverables. The ILS scope has been tailored to the procurement of COTS equipment and the provision of information. ILS principles are applied to evaluate system supportability and obtain the Technical Information (TI) and documentation necessary to safely operate, maintain and support the equipment through life and safely dispose of the equipment at End of Life (EOL).

ILS Elements and in particular the tailored application of Supportability Analysis (SA) tasks need to be co-ordinated across the breadth of the project to prevent duplication and ensure the optimum support arrangements are identified and put into place.

Where a Contractor is down selected to deliver multiple projects, (WS1, WS2, MRTL, BC) there is an opportunity for a combined set of ILS deliverables to be provided. Where economies of scale, efficiencies or streamlining the processes can realise benefits across the ILS domain, proposals should be made to the Authority using the Change Control Process detailed in the contract.

## 3. SUPPORT CONCEPT

The support concept is based on:

a. Integration of the systems within the existing military support infrastructure;

b. The user/maintainer undertaking scheduled maintenance and In-service repair [Line Replacement Unit (LRU) level], Maintenance Level (ML) ML 1 & ML 2[2];

c. Depth defect investigation repair and trend analysis at ML 4, via Contractor Logistic Support (CLS)[3][4];

d. Equipment and IP Spares being held at [REDACTED] prior to deployment;

e. Use of the military supply chain for resupply and reverse supply chain, requiring equipment and spares to be NATO Codified;

f. Operator and maintainer Training via a T3 training pack developed by the Contractor. Post the initial T3 training provided the Contractor (2 locations), future training is the responsibility of the military instructors;

g. The availability of Operator and Maintainer Technical Publications in Army Equipment Support Publication (AESP) format;

h. Follow on support (such as repairs technical publications update, Obsolescence resolution, etc) being provided via an Inspection & Repair order/tasking.

[2] The need for Software support tasks at ML 1 / ML 2 derived via Supportability Analysis
[3] No requirement to return equipment to ML4 for scheduled maintenance
[4] Includes investigation and designation of "No Fault Found (NFF)"

# 4. SILLS ILS PLAN

## 4.1. INTRODUCTION

## 4.2. AIM

The aim of this ILSP is to provide guidance to the Contractor on the Authority's requirements relating to the application of ILS and through life support for the SILLS project. The approach to ILS has been tailored to the project based on equipment design maturity. Although there is minimal scope to influence design for support, ILS can be used to influence equipment down selection and integration with the existing support infrastructure.

This ILSP also:

a. Describes the required logistic actions, tasks and milestones;

b. Ensures that all relevant ILS elements and tasks are considered;

c. Establishes the responsibilities for ILS programme participants.

## 4.3. ILS OBJECTIVES

The ILS objectives for the project are:

a. To ensure coordinated plans are in place to achieve optimised logistic support for the equipment;

b. To ensure support considerations are used to influence design, where design freedom exists;

c. Reliability and Maintainability (R&M) Assurance, via R&M Case Report data:

d. Maximising equipment availability at optimum WLC, via Supportability Analysis (SA) focused on maintenance and spares optimisation:

e. To ensure the correct spares are available in the correct quantities to support Equipment Delivery Date (EDD), Full Operating capability (FOC) and the first 2 years of use. Spares use during the first two years, used to inform follow on spares procurement;

f. To ensure the equipment and spares can be transferred, tracked and accounted for by the Joint Supply Chain (JSC);

g. To obtain the Technical Information (TI) and Technical Documentation (TD) necessary to safely operate and maintain the equipment through life and dispose of the equipment at EOL;

h. Training Needs Analysis and the development of Operator and Maintainer Train The Trainer (T3) pack information;

i. Where viable, the avoidance of new facilities and the reuse of existing in-Service Support and Test Equipment (S&TE);

j. To mitigate obsolescence impact by the application of tailored cost-effective Obsolescence Management (OM);

k. The seamless transition to follow on In-Service Support.

## 4.4. SCOPE

This ILSP is applicable to all deliverables detailed in the relevant Statement of Work and Contract Schedule of Requirements. It is the intent of this plan to demonstrate that adequate provision has been made for ILS. This includes plans and structures for the ILS team and the customising of the ILS functions for the product/system.

## 4.5. ITERATION

This ILSP is updated as required by the MOD ILS Manager (MILSM).

## 4.6. ILS REQUIREMENTS

The ILS requirements for the project are captured in the ILS SOW which forms an integral part of the contract.

## 4.7. ILS ORGANISATION & MANAGEMENT

The following key Project personnel have an input to the ILS process:

DCC Project Team Leader:
DES LE STSP-DCC-STA&LETH-TLM
Soldier, Training & Special Programmes
MOD Abbey Wood
#3260, NH3 Cedar 2A
Bristol
BS34 8JH

Project Manager:
DES LE STSP-DCC-STA-PM2
Soldier, Training & Special Programmes
MOD Abbey Wood
#3260, NH3 Cedar 2A
Bristol
BS34 8JH

MILSM:
DES LE STSP-DCC-ILS1
Soldier, Training & Special Programmes
MOD Abbey Wood
#3260, NH3 Cedar 2A
Bristol
BS34 8JH

## 4.8. MOD ILS MANAGER

The MILSM provides a focal point for the ILS programme elements and is the ILS interface for the Contractor ILS Manager (CILSM). As necessary, the MILSM can call on support and guidance from the Defence Equipment & support (DE&S) ILS Element domain Subject Matter Experts.

The MILSM is responsible to the Project Manager for the overall planning and execution of all supportability activities related to the acquisition of the capability. The MILSM manages and provides oversite of:

a. Development of the tailored ILS programme and associated documentation;

b. Co-ordination and control of the Authorities ILS activities during the project;

c. The development of the overall support concept in conjunction with the Project Team and the Contractor;

d. ILS deliverables review and providing feedback to the Contractor.

## 4.9. CONTRACTOR ILS ORGANISATION

The ILS SOW requires the Contractor to develop and implement an Integrated Support Plan (ISP), describing how the Contractor intends to plan, manage and conduct their ILS scope of work. The Contractor's ILS Organisation and individual responsibilities need to be defined within the ISP including points of contact and proposed interface to the Authority. The expectation is that a CILSM is assigned to the project, forming the primary ILS interface.

## 4.10. ILS PROGRAMME

The ILS deliverables are identified in the ILS SOW and the associated Schedule of Requirements. Key project dates are detailed within the Key Tendering Activities documents.

## 4.11. PROGRESS REVIEWS

During Demonstration and Manufacture, ILS reviews are incorporated within the Monthly Project Meetings and not held as a separate activity. There is no intention to establish Logistic Support Committee Meetings or to hold ILS specific meetings/reviews during the In-Service period.

## 4.12. RISKS

ILS risks need to be identified and managed as part of the overall project-based Risks and Issues Register.

## 4.13. ILS WORK BREAKDOWN STRUCTURE

The ILS Work Breakdown Structure (WBS) at Figure 1 is generated to assist ILS Managers in planning their ILS programmes and provides the mechanism for control of both the MOD and Contractor elements of the ILS programme.

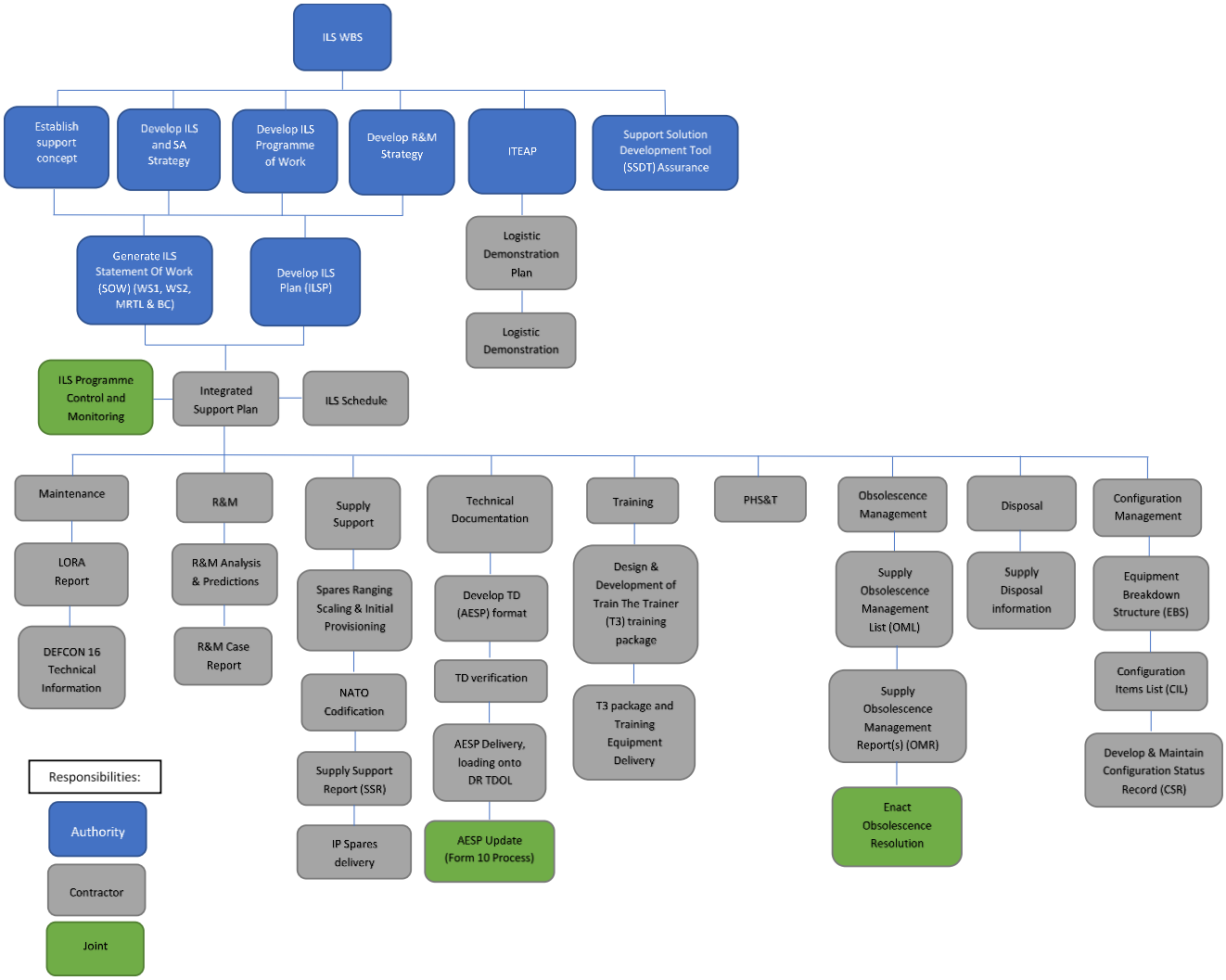


**Figure 1 ILS Work Breakdown Structure**

## 4.14. ILS MILESTONES

ILS Deliverables form part of the key project-based Milestones, as detailed in Schedule of Requirements and the Key Tendering activities.

## 4.15. ILS DOCUMENTATION

The following documents are used in the management of ILS for this project. As indicated, documents may be Contractual ([C]) or for Information ([I]) purposes only.

a. ILS Statement Of Work[C];

b. ILSP[I];

c. Contract Data Requirements List (CDRL)[C];

d. Integrated Support Plan (ISP)[C].

### 4.15.1. ILS STATEMENT OF WORK

The contractual ILS SOW provides details of the ILS tasks to be completed by the Contractor and associated deliverables.

### 4.15.2. ILS PLAN

The ILSP is the guiding document to which the Contractors logistics support system, ISP and subordinate work responds. This document describes the Authority's approach to the application of ILS for the project. The ILSP is a non-contractual document and is issued as part of the ITT to provide guidance on interpreting the supportability requirements.

### 4.15.3. CONTRACT DATA REQUIREMENTS LIST

The CDRL is a contractual document, specifying the information to be delivered under the Terms and Conditions (T&Cs) of the contract.

Two CDRLs are applicable to the deliverables identified in the ILS SOW. Each CDRL defines the information to be provided, and includes the associated Intellectual Property Rights (IPR) (DEFCON 16) and Copyright (DEFCON 90) the Authority requires:

a. CDRL one is for the supply of Maintenance / Repair / Reconditioning / Replacement Technical Information.

b. CDRL two is applicable to the range of ILS deliverable artefacts.

### 4.15.4. INTEGRATED SUPPORT PLAN

In accordance with the ILS SOW the Contractor is required to generate an ISP which describes the contractor's ILS organisation, their intended approach for complying with the ILS requirements and their plan to provide the contractual ILS deliverables. Def Stan 00-600 Part 3 Product Description (PD) 0001-02 provides a basis for the ISP, tailorable to the SILLS project.

## 4.16. ILS ELEMENTS AND ASSOCIATED ASPECTS

Recognised ILS methods need to be applied by the Contractor in the delivery of their contracted outputs and deliverables. The basis of these outputs and deliverables are described in the ILS SOW. The following aspects are explained in more details below:

a. Supportability Analysis;
b. Maintenance;
c. Reliability & Maintainability;
d. Human Factors Integration;
e. Logistics Information & Technical Documentation;
f. Supply Support;
g. NATO Codification;
h. Single Item Ownership;
i. Marking and Labelling;
j. Government Furnished Assets;
k. Assets Subject to Special Controls;
l. Packaging Handling Storage & Transportation;
m. Software Support;
n. Training & Training Equipment;
o. Support & Test Equipment;
p. Obsolescence Management;
q. Configuration Management;
r. Logistic Demonstration;
s. Equipment Fielding;
t. Disposal;
u. Security;
v. Post Design Support;
w. Acceptance Criteria.

### 4.16.1. SUPPORTABILITY ANALYSIS

Supportability Analysis (SA) is the principle tool to ensure the objectives of the ILS programme are achieved. The detailed analytical tasks are based on 5 (five) distinct workstreams:

1) Programme Planning and Control;

2) Mission and Systems Support Definition;

3) Preparation & Evaluation of Alternatives;

4) Determination of Support Resource Requirements;

5) Supportability Assessment.

Tailoring SA, whilst ensuring all critical support resources, cost drivers and risks are identified is key to the cost-effective application of ILS.

This Project seeks the acquisition of a mature COTS product, where the research and design stages have been completed. As such, this project is not subject to a developmental cycle, where ILS could influence design. Therefore, SA is focused on the evaluation of existing data and support concepts in order to generate the information required by the ILS SOW, delivered in accordance with the Schedule of Requirements.

### 4.16.2. MAINTENANCE

As a COTS procurement there is limited scope for ILS to influence design for operation and support.

The intention is for SA to be used to identify the optimum support strategy and ensure the required support resources are identified and put in place to support the system through life and ensure the safe and environmentally considerate disposal of all assets at EOL.

The intention is to apply ILS processes across the identified ILS elements to ensure the equipment is optimally supportable by the military, military supply chain for the projected 10-year service life.

Traditional levels of maintenance are applicable to equipment procured under the contract. The depth of maintenance tasks undertaken at each maintenance level is determined by the application of SA whilst taking into consideration the predefined nature of the maintenance tasks, aligned to a COTS procurement.

### 4.16.3. **MAINTENANCE LEVELS**

When deciding on the location for the conduct of maintenance tasks, consideration should be given to how far forward the maintenance activity can be effectively undertaken to maximise equipment availability whilst also minimising the logistic footprint and WLC. More detailed corrective maintenance activity may be better provided in “depth”, where for example, access to specialised and /or limited resource may be required. However, maintenance has a direct impact on equipment availability. The applicable Maintenance Levels include:

a. ML 1 Servicing and day to day preparation. It may include such operations as functional testing, replenishment, servicing, fault diagnosis and corrective maintenance by replacement, adjustment or minor repair.

b. ML 2 Equipment Support (ES) planning and maintenance conducted at unit level, by replacement, adjustment, calibration, modification or minor repair using generally provisioned resources, such as ES materiel spares packs; this is the first level of ES delivered by Royal Electrical Mechanical Engineers (REME).

c. ML 4 Full overhaul, reconditioning, major conversions, or major repairs and calibration, usually outside the theatre of operations and conducted by Defence Contractors.

### 4.16.4. **LINES (FORWARD & DEPTH) OF MAINTENANCE**

Different Lines of Maintenance (i.e. Forward or Depth) can be understood as follows:

- **Forward** Maintenance tasks performed on equipment which are ready to support operations in the frontline. These tasks are less complex and could include functional testing, replenishment, servicing, minor modification and fault diagnosis.
- **Depth** Commonly referred to as tasks that require “deep maintenance away from the front line”. These tasks are more complex and require periodical planning. “Depth Fleet” is equipment which is being serviced or upgraded and therefore not ready for immediate deployment.

### 4.16.5. **RELIABILITY & MAINTAINABILITY**

Reliability & Maintainability (R&M) are vital performance characteristics that impact upon equipment availability, effectiveness and through-life cost of ownership. Failures eventually occur, it is just a matter of when, why, how, and understanding the operational impact and how easy it is to repair.

R&M is the single largest contributor of through-life equipment support costs. The majority of support costs are driven by maintenance, which in turn is driven by equipment reliability. Getting reliability right results in through-life support cost savings and more importantly provides the user with confidence in systems that can be trusted to work.

If the inherent level of reliability is low leading to frequent disruptions, this may make the system unusable or ineffective.

If the inherent level of maintainability leads to the system being out of service for long periods, this may make the system unusable or ineffective. Excessive downtime can also result in the system being too costly to sustain (for example through increased spares consumption) and/or require more resources than available to maintain the system.

R&M requirements are necessary where the inherent level of R&M could result in an unsustainable system without specification, or where the inherent level of R&M is not known.

MOD policy is to implement the R&M Case, which provides progressive assurance that the R&M Risks are being mitigated, building into a case, or argument, that the R&M requirements are being, or will be achieved. This risk-based approach ensures that the R&M tasks included in the R&M programme are targeted at the R&M risks and therefore the R&M tasks are dedicated to achieving the R&M requirements.

### 4.16.6. **HUMAN FACTORS INTEGRATION**

The overall objective of Human Factors Integration (HFI) is to ensure that during equipment definition and procurement, full account is taken of the capabilities and limitations of the military personnel required to operate and maintain the equipment in-service. In particular, the number and skills of military personnel needed to operate and maintain the equipment. For this requirement, HFI is being addressed as part of the equipment trials and there is no HFI scope of work defined within the ILS SOW.

### 4.16.7. **LOGISTIC INFORMATION & TECHNICAL DOCUMENTATION**

Logistic Information is required to enable the capability to be supported through life. The Logistic Information requirements are specified within the ILS SOW and associated Schedule of Requirements.

Technical Documentation (TD) is required by the Planning/Logistics staff, Users/Operators and Maintenance personnel. As a military capability, the TD needs to be published in Army Equipment Support Publication (AESP) format and delivered as Portable Document Format (PDF) documents, instead of Original Equipment Manufacturer (OEM) Manuals.

The AESP format is as defined by Def Stan 00-601 part 4. There is no requirement for Interactive Electronic Technical Publications (IETPs) to be generated.

The AESP delivery requirements, both draft & final are defined within the ILS SOW and the Schedule of Requirements. Access to the final published versions of the AESPs is via the Design Repository (DR) Technical Documentation On Line (TDOL) (DR TDOL). Responsibility for loading the AESP's onto DR TDOL resides with the Contractor, as required, support provided by the Authority.

Managed by the Support Chain Information Services (SCIS), DR TDOL is the joint services repository for Technical Documentation, controlling the configuration management, hosting and viewing of PDF Technical Documentation.

The DR TDOL Form 10 (F10) process is used by the user to notify the Authority of any issues with the Technical Publication and proposed updates. Once approved by the Authority the completed Form F10s are forwarded to the Contractor for action as part of a CLS or separate Post Design Services (PDS) tasking. Where viable the Authority is responsible for grouping and submitting a number of F10s by reference to individual AESPs, prior to action by the Contractor.

As detailed in Table 1, AESPs use eight categories of information represented by a numbering format known as the Octad. The combination of categories and levels permits a logical presentation of information for the planning staff, user/operator and repair authority for any equipment.

The outline Octad for the equipment being delivered under this contract is detailed in Table 2. The Prefix Octad publication number is provided by the Authority during system development. However, an equipment NSN is required before an OCTAG publication number can be generated.

| Category | Description |
|---|---|
| 1 | **Purpose and Planning Information, Equipment Support Policy Directive**<br>This category is divided into two sub-categories and contains the information required by operational and planning staffs to assess the suitability of materiel for use in a specific environment and or situation. |

| | |
|---|---|
| 2 | **Operating Information, Aide Memoire and Training Aids**<br>This category contains the information required by personnel to enable them to operate a system or item including instructions for setting up operating, making user adjustments, emergency procedures, functional tests and remedial actions. |
| 3 | **Technical Description**<br>Describes the technical principles of design and operation and functioning and inter-relation of the various parts of the system. |
| 4 | **Initial Installation and preparation for Special Environments**<br>This category is divided into two sub-categories and contain the information required for the installation of the system/materiel. |
| 5 | **Maintenance Information and Instructions**<br>Contains information required for fault diagnosis, repair and calibration of the equipment's/systems. |
| 6 | **Maintenance Schedules**<br>Contains concise statements of the work to be done on materiel at stated interval of time. |
| 7 | **Illustrated Parts Catalogues, Commercial Parts List and Complete Equipment Schedule**<br>Lists and illustrates items of materiel and designed as an aide to the identification of parts of the equipment. |
| 8 | **Modification Instructions**<br>General Instructions This category is divided into three sub-categories and contains the detailed information required by all maintenance levels to comply with a modification instruction. |

**Table 1 Octad Categories**

| Category/ Sub-category | | | Information Level | | | |
|---|---|---|---|---|---|---|
| | | | 1<br>User/ Operator | 2<br>Unit Maint. | 3<br>Field Maint. | 4<br>Base Maint. |
| 1 | 0 | Purpose and Planning Information | Include in Sub-Cat 201 | | | |
| | 1 | Equipment Support Policy Directive | Include in Sub-Cat 201 | | | |
| 2 | 0 | Operating Information | Include in Sub-Cat 201 | | | |
| | 1 | Aide Memoire | 211 | | | |
| | 2 | Training Aids | | | | |
| 3 | | Technical Description | Include in Sub-Cat 201 | | | |
| 4 | 1 | Installation Instructions | Include in Sub-Cat 201 | | | |
| | 2 | Preparation for Special Environments | As required include in Sub-Cat 201 | | | |
| 5 | 1 | Failure Diagnosis | Include in Sub-Cat 201 | | | |
| | 2 | Repair Instructions | Include in Sub-Cat 201 | | | |
| | 3 | Inspections Standards | Include in Sub-Cat 201 | | | |
| | 4 | Calibration Procedures | As required include in Sub-Cat 201 | | | |
| 6 | | Maintenance Schedules | Include in Sub-Cat 201 | | | |
| 7 | 1 | Illustrated Parts Catalogue | Include in Sub-Cat 201 | | | |
| | 2 | Commercial Parts List | | | | |
| | 3 | Complete Equipment Schedules, Production Edition | | | | |
| | 4 | Complete Equipment Schedules, Service Edition (Simple Equipment) | Include in Sub-Cat 201 | | | |
| | 5 | Complete Equipment Schedules, Service Edition (Complex Equipment) | | | | |
| 8 | 1 | Modifications Instructions | Include in Sub-Cat 201 | | | |
| | 2 | General Instructions, Special Technical and Servicing Instructions | Include in Sub-Cat 201 | | | |
| | 3 | Service Engineered Modification Instructions (RAF Only) | | | | |

**Table 2 Octad**

Not Applicable

For SILLS, the 201 OCTAG is compressed into a Complex 201 format, aligned to the structure detailed in Def Stan 00-601 Part 4.

### 4.16.8. **SUPPLY SUPPORT**

The Authority needs to understand how the Contractor intends to manage Supply Support. The Contractors Supply Support Plan forms an element plan to the ISP.

The Supply Support Strategy for the equipment being delivered under this contract is based on the principles of Def Stan 00-600 Part 1, DEFCON 82, and the application of SA to determine and optimise the range and scale of spares required to support the equipment across the defined lines of maintenance. The equipment and agreed range of Initial Provisioning (IP) spares need to be NATO codified and spares scaled to support 2 years of operation. IP Spares will be held on stock at [REDACTED], demanded via Stores System (SS3) and supplied via prioritised demands. The intention is for the monitoring of spares usage during the first 2 years of operation to inform future spares procurement. The reverse supply chain will be used to return equipment to the UK for repair.

The equipment and IP Spares need to be delivered to [REDACTED]. To inform Defence Suppliers, a Logistic Commodities and Services Transformation (LCST) Authority Managed Material Supplier Manual, has been generated which contains all the necessary information, processes and instructions that are required to enable suppliers to successfully deliver their goods and communicate with military depots.

The Contractor has responsibility for the security of equipment whilst the equipment is under their control, i.e. prior to delivery and whist undertaking depth repair prior to receipt by the military supply chain. The Security Aspects Letter (SAL), provides details of the project security classifications.

### 4.16.9. **NATO CODIFICATION**

DEFCON 117, refers to the requirements associated with NATO Codification. NATO codification procedures result in the allocation of a unique thirteen figure code known as a NATO Stock Number (NSN). NATO codification is required to allow the MOD Log IS to be used to identify, receive, store, maintain, demand, issue, consignment track and account for materiel. It is mandated that all inventory that enters the supply chain and is held on the MOD's balance sheet has a unique NSN. The PT is responsible for ensuring codification of any new items. NATO Codification activities and timescales align to enabling:

a. NSNs to be applied to equipment, spares and reusable packaging;

b. NSNs to be identified in the Technical Publications;

c. The supply of spares via the military supply chain to support EDD and FOC.

### 4.16.10. **SINGLE ITEM OWNERSHIP**

It is mandated that each item has one NSN, one owner and is hosted on one base inventory system. Parts listed on the IPL could already have been NATO codified and form part of the MOD inventory.

If an item is found to be already provisioned by the MOD, the MILSM notifies the managing PT of the item required by the project, under the Single Item Ownership policy.

The future management of the item(s) is agreed between the PTs and where supplied from outside the project, the item will be deleted from the IPL. If the item is already provisioned by another PT, and that team retains management control, additional requirements are funded by the Project. Internal Business Agreements (IBAs) are established by the Authority regarding provision and management of items subject to multi-applicability for both Support To other Platforms (SToP) and Support From other Platforms (SFoP).

### 4.16.11. **MARKING AND LABELLING**

The ILS SOW provides details of the equipment, spares and packaging marking and labelling requirements. The packaging requirements include both military level packaging and commercial packaging which results in variations to the marking and labelling requirements, as detailed in DEFCON 129.

The Authorities expectation for equipment and spares marking are defined in the ILS SOW and the contract T&Cs.

Unique Item Identification (UII), via a common standard and set of business rules. is required for identifying serial managed equipment and items within the Defence inventory. The UII is the unique string of characters associated with a single item for machine readable identification; it establishes a common data set for information systems to collect, manage and share data related to that serialised item.

Def Stan 05-132 refers to STANAG 2290 and Annex A provides UII construction details including the rules to be applied. Further guidance on the application of UII and generating the QR codes is available from the Authority.

### 4.16.12. **GOVERNMENT FURNISHED ASSETS**

Government Furnished Assets (GFA) is a term covering equipment and other MOD assets that are provided to industry in support of contracts. GFA consists of:

a. Government Furnished Equipment (GFE);
b. Government Furnished Resource (GFR);
c. Government Furnished Information (GFI);
d. Government Furnished Facilities (GFF).

Currently the Authority does not consider there to be a requirement for the supply of GFA in support of the programme of work. If Contractor requires GFA to support delivery of the contract, requests and associated justification should be presented to the Authority for consideration.

### 4.16.13. **ASSETS SUBJECT TO SPECIAL CONTROLS**

Assets Subject to Special Control (ASSC) is a generic term describing defence platforms, systems, sub-systems, components, technical data and information that are subject to various international export control regulations such as International Traffic in Arms Regulations (ITAR). For ASSC within this contract, the Authorities expectation is that all export control documents are present, and details made available to the Authority.

### 4.16.14. **COUNTERFEIT**

Counterfeiting is applicable to all material, and the incidence of counterfeiting has increased dramatically in recent years, counterfeit components materials and Certificates of Conformity (CoC) are increasingly prevalent. As the counterfeit risk has increased so has the level of awareness and need for mitigation measures.

The Authorities expectation is that the Contractors Counterfeit control and management strategies, outline processes and procedures align to compliance with Defence Standard 05-135 and are identified, either within the ISP or by reference to a separately supplied document.

### 4.16.15. **PACKAGING HANDLING STORAGE & TRANSPORTATION**

The allocation of packaging levels takes into consideration the envisaged handling, storage and transportation of the equipment and spares. Packaging is required to protect the equipment and spares both in storage and during transport, to ensure the store arrives where required, in the correct condition and fit for purpose.

The Packaging requirements are detailed in the ILS SOW. Packaging levels have been selected considering the guidance detailed in Def Stan 81-041 Part 1, and the optimum packaging level flow chart in Figure 2.

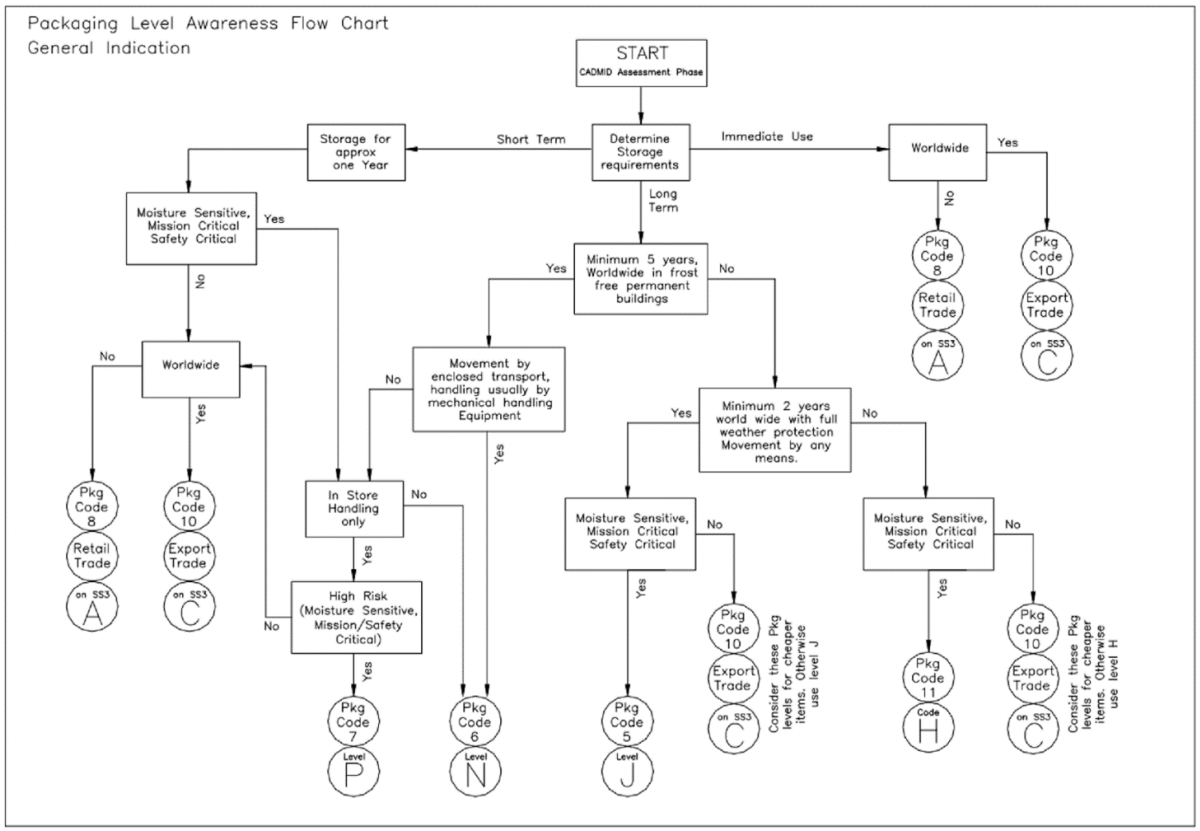


**Figure 2 Optimum Packaging Level Flow chart**

Packaging code J has been selected for the main equipment's based on, minimum 2 years worldwide storage with full weather protection, movement by any means and the Mission Critical nature of the equipment.

Retail Packaging Code C has been allocated to the Spares, based on the need for worldwide deployment and immediate use.

Prior to issue, the intention is for spares to be held in environmentally protected facilities at [REDACTED]. Spares will be issued forward to worldwide theatres of operation, via the JSC, ready for immediate use.

The equipment and associated spares need to be suitable for safe and secure transport by air, sea, road, and rail throughout the JSC without the use of bespoke / non-standard handling equipment. To facilitate safe and secure transport, hazardous goods are identified and considered (via Schedule 6 to the T&Cs of the contract).

Design guidance for the transportability of equipment is provided by Def Stan 00-003.

### 4.16.16. **SOFTWARE SUPPORT**

Software support can be broken down into two distinct yet interrelated components, these being Software Operations Support (SOS) and software modification.

a. SOS includes all the activities that occur on a day-by-day basis relating to the preparation, and where necessary recovery, of software dependent systems;

b. Software modification includes all the activities that enable software to be changed in a controlled and timely manner to meet new or altered requirements.

Due to these differences, the failure modes associated with SOS and software modification differ in that whilst a failure of SOS has a detrimental effect upon system availability, software modification failure impacts upon the ability to sustain capability.

If SOS is required at ML 1 or ML 2, software support information needs to form part of the TD, included within the training and all associated SOS resources supplied as part of the contract.

The requirement for software modification during the life of the equipment is presently an unknown. If software modification is required to correct an issue, incumbent within the system, the Contractor is responsible for implementation. If the software requires modification based on a change in capability or requirements driven by the Authority, this will be managed via PDS tasking.

The Authority needs to be kept informed of software development that enhances capability or system availability, for future consideration.

Whilst Software Support, including impact on Configuration Management and fit, form and function is the remit of the Contractor, potential Obsolescence issues affecting software availability need to be communicated to the Authority.

### 4.16.17. **TRAINING & TRAINING EQUIPMENT**

Training is based on a Train The Trainer (T3) package. Post the two sets of Contractor delivered instructor-based training, (UK Locations to be advised) the Contractor generated reusable training material is used by the Service instructors to train personnel in the operation and maintenance of the equipment.

### 4.16.18. **SUPPORT & TEST EQUIPMENT**

The term Support and Test Equipment (S&TE) is used to describe the range of equipment, that is required to sustain equipment operation and maintenance.

There are two types of S&TE:

i. **General Purpose Test and Measurement Equipment (GPTME)**, those items that are common to more than one product, platform or system.

ii. **Special Purpose Test and Measurement Equipment (SPTME)**, those items which are designed, developed, produced and used solely for one product, platform or system.

There are two categories of S&TE:

i. **Support Equipment**, can be general purpose or special purpose and includes but is not limited to the following:

- Hand Tools, including Tool Kits and Tool Sets;
- Jigs;
- Support Equipment for on and off-equipment maintenance;
- Ground Support Equipment, including Manual Handling Equipment;
- Gaseous and Cryogenic Systems;
- Workshop Tools and Equipment;
- Warehouse Equipment;
- Special inspection equipment and depot maintenance plant equipment;
- Air Conditioners, Environmental Control Units, General Purpose Generators;
- Equipment for Working at Height;
- Equipment for Lifting;
- Calibration equipment.

ii. **Test Equipment,** both general purpose and Automatic Test Equipment is defined as items of equipment used to:

- Provide an indication of system, equipment or component serviceability and/or;
- Evaluate the ability of the system or equipment to meet precisely defined performance of measurement standards.

In accordance with MoD policy, the use of S&TE is to be kept to a minimum, and where practicable availability sought from the current MOD inventory.

Within the context of this project, the Contractor is responsible for the identification and rationalisation of cost-effective S&TE solutions, as necessary to, operate, maintain and support the equipment, in alignment with the maintenance policy. The expectation is that the following fundamental principles are adhered to:

i. The requirement for S&TE at all levels of in-service maintenance is to be kept to a minimum;

ii. General purpose S&TE to be used in place of Special purchase S&TE, wherever possible;

iii. Where a requirement for Special purpose S&TE is identified, use needs to be fully justified and agreed with the Authority.

iv. The Contractor needs to inform the Authority of any requirement for electronic and / or automatic S&TE. Procurement of such equipment is subject to the guidance and processes outlined in the DLF.

### 4.16.19. **OBSOLESCENCE MANAGEMENT**

Obsolescence is inevitable, affecting equipment availability and WLC. However, with due consideration and management, obsolescence impact on equipment availability and WLC can be minimised.

The authoritative guidance on the implementation of cost-effective risk based proactive and reactive OM is provided by IEC 62404:2019. The Contractors approach and plan for the application of OM forms part of the Contractors ISP.

The Authority requires progressive assurance from the Contractor in the continued availability of spares and equipment throughout the in-service life. In part, this assurance is derived from the considered application of OM. The Obsolescence Management List (OML) provides the Authority with visibility of the high risk and impact parts which are being proactively managed and the current Obsolescence status. The overall obsolescence status forms a major input into follow-on life extension decisions.

The timely identification of obsolescence issues generally provides for a greater number of resolution options and lower resolution costs. Even if the obsolescence issue is unlikely to impact equipment / spares availability over the defined in-Service Life, all obsolescence issues should be communicated to the Authority.

### 4.16.20. **CONFIGURATION MANAGEMENT**

MOD Policy is that Configuration Management (CM) is applied to the acquisition of Defence Material throughout all phases of the CADMID Lifecycle, based on the requirements of Defence Standard 05-057. A copy of the MOD CM Aide Memoire has been included at Schedule 21 to the ITT.

The objective of Configuration Management is to define the system's physical and functional characteristics by specifications, datasheets, drawings and related documentation. Configuration is therefore identified to the lowest appropriate level[5], required to assure repeatable performance, standardization, safety, quality, reliability, availability, maintainability, traceability, interchangeability, supportability and interoperability.

CM is the control exercised over Form, Fit and Function characteristics. CM provides a mechanism for controlling product functional and physical characteristics throughout the acquisition lifecycle and enables an orderly transition from Development through Manufacture to in- service.

[5] To include Software

CM provides a record of changes throughout the life of the product and shows any dependencies between products and their sub systems or components. The record of changes against the baseline should be maintained by the Contractor and made available to the Authority.

Details of the Contractors approach to the application of CM is a requirement to be addressed within the ISP.

### 4.16.21. **LOGISTIC DEMONSTRATION**

Support Solution validation is via the Logistic Demonstration which forms part of the Integrated Test Evaluation and Acceptance Plan (ITEAP). The Log Demo provides the Authority with confidence that the equipment is supportable and can be maintained on entry into service. As detailed in the ILS SOW, a Log Demo Plan needs to be generated by the Contractor and agreed with the Authority. The maintenance tasks that can be considered as part of the Log Demo, Log Demo reporting and issue resolution form part of the Log Demo Plan.

### 4.16.22. **EQUIPMENT FIELDING**

Equipment delivery to [REDACTED] by the Contractor is as defined by the Schedule of Requirements. Equipment fielding from [REDACTED] to unit level is the responsibility of the Authority and the JSC.

### 4.16.23. **DISPOSAL**

The Defence Equipment Sales Authority is the lead organisation responsible for the sale of all MOD assets when declared surplus to requirements or at equipment EOL. Defence Standard 00-600 Part 1, and KiD[6] provide associated guidance for disposal planning. As part of the ILS SOW, hazardous material declarations, to inform disposal, form part of the Contractors scope of work.

### 4.16.24. **SECURITY**

The SAL provides details of the equipment and information security requirement for all aspects of the programme.

### 4.16.25. **POST DESIGN SUPPORT**

The Authority's expectations with regard to Post Design Support is defined within Schedule 12 to the T&Cs of the contract.

### 4.16.26. **ACCEPTANCE CRITERIA**

The Acceptance criteria for the ILS scope of work is defined in Schedule 8 (Acceptance Procedures). The Acceptance criteria for the Log Demo forms part of the Log Demo Plan and the ITEAP.

[6] KiD is accessible via https://www.aof.mod.uk/