MINISTRY OF DEFENCE

JSP 886
DEFENCE LOGISTICS SUPPORT CHAIN MANUAL

VOLUME 7
SUPPORTABILITY ENGINEERING

PART 8.14
MANAGEMENT OF ITEMS REQUIRING SPECIAL IDENTIFICATION (SI)

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1.3	14 Jun 12	Change to omit paragraph 3 from Chapter 1.

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CHAPTER 1: POLICY

CONTEXT

1. This chapter provides MOD policy for items within the Defence inventory that require specific special identification (SI). All items requiring SI will be identified by means of the NATO stock number (NSN) or Materiel Asset Code (MAC) and a special item identifier (SII). Further advice and guidance on SI can be found in Chapters 2 and 3 of this document.

POLICY

2. It is MOD policy that items designated SI are subject to special through-life management and accounting procedures, from their transfer to MOD ownership through to their final disposal; custodians of these items are to comply with materiel accounting regulations in accordance with JSP 472: Financial Accounting and Reporting Manual and JSP 886 Volume 4: Fundamentals of Materiel Accounting.

PRECEDENCE AND AUTHORITY

3. Ownership of Logistics policy in support of the Logistics Process falls to the Assistant Chief of Defence Staff Logistics Operations (ACDS Log Ops) as CDM's Process Architect[1]. ACDS Log Ops exercises this role through the Defence Logistics Steering Group (DLSG) reporting up to the Defence Logistics Board (DLB) accordingly. As ACDS (Log Ops)'s Policy Architect within the Logistics Process, the Head of Defence Logistics Policy is tasked by the DLSG to lead on the governance of Logistics policy; this governance is promulgated through the Defence Logistics Policy Working Group (DLPWG). It is against this governance framework that sponsorship[2] for Integrated Logistics Support (ILS) policy is delegated formally to Hd JSC SCM.

MANDATED REQUIREMENTS

4. It is mandated that all MOD equipment acquisition projects comply with relevant legislation and safety[3] requirements. Under UK law, all employers have a duty of care to their employees, the general public and the wider environment; for the MOD, this includes an obligation to manage the safety risks associated with military systems and their operation. In accordance with general guidance provided by the Health and Safety Executive, MOD will discharge this duty by ensuring that, in so far as risks are not judged to be unacceptable, they are reduced to a level which is a low as reasonably practicable. SI items have the potential to have a negative effect on safety and so it is essential that items requiring SI are managed effectively to meet the legislative requirements.

ASSURANCE AND PROCESS

Assurance

5. JSP 899: Logistics Process Roles and Responsibilities requires that all equipment acquisition project support solutions must comply with the mandated project assurance

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[1] JSP899: Logistics Process – Roles and responsibilities.
[2] Sponsor - The person responsible for the content, currency and publication of a JSP (as per letter of delegation). Responsibility established through Letters of Delegation (LoD), issued through the DLPWG chair and exercised through Terms of Reference.
[3] MOD policy on the management of safety related items of supply can be found in JSP 886 Volume 2 Part 1 Chapter 9.

mechanism. Additional assurance requirements will be applicable to assets. The DE&S Corporate Governance Portal provides details of the DE&S assurance requirements.

Process

6. PTs are to identify which items require SI as part of the Integrated Logistic Support (ILS) programme. The PT must plan for the provision of a list of SIIs for all NSNs and MACs with a SI requirement; the different categories of materiel which may require SI can be seen at paragraph 11. The SIIs can then be input to the mandated inventory and engineering through-life support (ETLS) management systems.

7. PTs must decide what type of SII is required; the following are all types of SII: serial number, chassis number, small arms butt number, equipment registration mark or vehicle registration number. This decision will be influenced by the information requirements of the inventory and ETLS management systems the assets or equipment will be managed on through-life.

8. PTs must state the requirement for the provision of a statement of the inventory and ETLS data and information[4] to be exchanged between ETLS and logistics information systems, in the project Logistic Information Plan (LIP). This statement of data and information exchange requirement will be directly related to the endorsed information system(s) provided to support the equipment through-life.

KEY PRINCIPLES

9. All Defence assets need to be managed to a level appropriate to their use. In deciding the level of management required for items requiring SI, it is important to remember that safety, legislation, operational capability and whole life costs are paramount, but also that over-management may have serious resource implications that may impact on the efficiency of the Joint Support Chain, particularly on PTs and Front Line Command (FLC) logistics staff and whole life support costs.

10. There are different categories of assets which may require SI in the Defence inventory:

a. Inventory subject to Import Duty Waiver[5].

b. Specific items that are considered attractive[6].

c. Items attractive to criminal and terrorist organisations (ACTO)[7].

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[4]Policy, advice and guidance on the Management of Support Information can be found in JSP 886 Volume 7 Part 5 and should be read in conjunction with this document.

[5]Policy, advice and guidance on the Management of Support Information can be found in JSP 886 Vol. 7 Pt. 5 and should be read in conjunction with this document.

[5] Import Duty Wavier - Items subject to Import Duty Wavier - The MOD Asset Accounting Centre (AAC) is the Department's Public Accounting Authority, the nominated audit and assurance body for Assets in Industry (AII) and the MoD's audit authority for goods imported from outside the EU where a waiver of duty is claimed against Council Regulation (European Commission) 150/2003.

[6] Some items of Supply will have an attractive indicator on the Base Inventory System but will not be accounted for by serial number, e.g. Rucksacks and Maglite Torches; however items such as binoculars and compasses may be.

[7] ACTO stores are those items considered to be of immediate value to terrorist or criminal organisations. JSP440, Part 7, Section 7, Chapter 1 refers.

d. Inventory subject to the International Traffic in Arms Regulations (ITAR): The United States (US) government operates controls over the export and import of military equipment on the US Munitions List, covered by the Ammunitions Export Controls Act, as implemented by the ITARs. Further information can be obtained from the International Relations Group (IRG).

e. Inventory classed as engineering managed items (EMIs): Those items which are subject to ETLS requirements; platforms, equipment, sub-assemblies or discrete items that need to be individually managed through-life because of their potential to impact on safety, legislative compliance, operational capability or equipment availability.

f. Vehicles and equipments designated as Registered Number Equipments (RNE).

OWNERSHIP AND POINTS OF CONTACT

11. Formulation of policy on Special Identification lies with DES JSC SCM-EngTLS-Hd and is ratified by the Defence Logistic Policy Working Group (DLPWG). Enquiries concerning this document should be addressed to:

a. Regarding the content to the policy Sponsor:

DES JSC SCM-EngTLS-SS
Cedar 2a #3239, MOD Abbey Wood, BRISTOL BS34 8JH
Tel: Mil: 9679 80398, Civ: 030679 80398
mailto:DESJSCSCM-EngTLS-SS@mod.uk

b. Regarding the accessibility of the document:

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APPLICABILITY

12. This policy is to be applied to all equipment acquisition projects including UOR's and those using CLS, CfA and CfC arrangements.

CHAPTER 2: MATERIEL ACCOUNTING

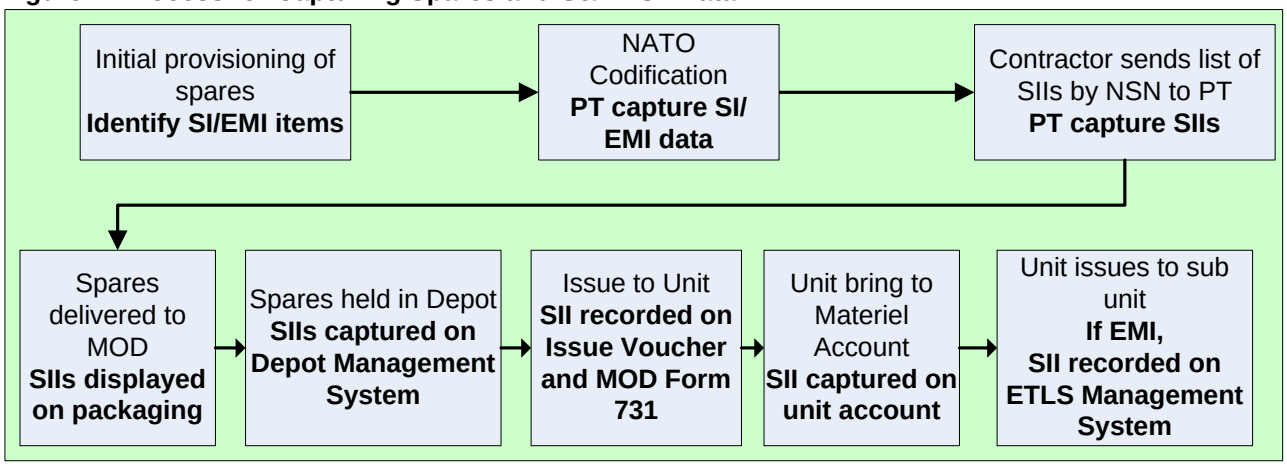
SUPPLY MANAGEMENT DATA

1. DE&S project teams (PTs), as inventory[8] owners, are to ensure that spares and support and test equipment (S&TE) requiring special identification (SI) are identified during the initial provisioning (IP) process[9]. Items designated as engineering managed items (EMIs) will also require identification and will have a larger data set; this data will have been created from the supportability analysis tasks carried out as part of the ILS programme.

2. It is important that PTs consider the increased through-life resource requirements, both within the PT and Front Line Command (FLC), which will be required to manage SI data and information. Special item identifier (SII) data will need to be loaded onto the mandated deployed inventory management[10] systems and in the case of engineering managed items (EMIs), the mandated engineering through-life support (ETLS) management system; this may require resource intensive manual intervention by IS operators.

3. The process for capturing the engineering and supply management data for spares and S&TE can be seen at Figure 1 below:

Figure 1: Process for Capturing Spares and S&TE SII Data



4. The PT must state the requirement for serial number format and recording media in their contract with their supplier. It is essential to ensure that the requirements of the inventory and ETLS management systems, such as the quantity of alpha/numeric characters in the serial number field, are understood and taken into account.

ETLS IN-STORE REQUIREMENTS

5. The PT must make provision for any SI items with ETLS requirements during periods of storage either in MOD or contractors storage and distribution facilities. Consideration needs to be given to items that may require periodic in-store maintenance or calibration, on-receipt or pre-issue inspection, free from explosives (FFE) or gas free certification and

[8] MOD policy for Inventory Management is contained within JSP 886 Volume 2.
[9] The IP process includes NATO codification and Item Data Record (IDR) creation on the relevant base inventory system (BIS).
[10] The mandated deployed inventory management systems currently in use with the FLCs are OASIS, UNICOM, GLOBAL and MJDI. These are all gradually being replaced by MJDI.

materiel conditioning using a MOD form 731. Provision needs to be made for any ETLS activity to be captured on the relevant inventory or ETLS management system; this may require that the MOD system is installed at a contractors premises. Requirements for package marking and labelling can be found in DEFSTAN 81-41 Part 6.

ASSETS IN INDUSTRY

6. MOD assets are often held by industry, particularly Jigs, Tooling and Test Equipment (JTTE) in accordance with DEFCON 23. Many of these items will have been supplied by PTs as Government Furnished Equipment (GFE) in accordance with DEFCON 611 and may be embodied into larger equipments and systems, including complete equipment schedule (CES) items, on their return to the MOD. PTs are to identify all SI items listed on the PT DEFCON 23 and DEFCON 611 registers and ensure that all SIIs are recorded at point of issue and return.

REGISTERED NUMBER EQUIPMENTS

7. The MOD operates a large fleet of MOD owned vehicles and equipments which are Registered Number Equipments (RNE), generically referred to as 'vehicles'. The term 'vehicle' is applied to fighting equipments, prime movers, trailers, box bodies and occasionally to other assets which are treated as vehicles, for management purposes, such as generators and water craft. The majority of MOD operational vehicles are managed by PTs within the Director Land Equipment (DLE) Cluster of DE&S; and are recorded on the MOD 'Management of Equipment Resources, Liabilities and Information Network' (MERLIN) Information System. MOD has an obligation to manage the safety risks associated with military vehicles and their operation and so it is MOD Policy that their vehicles will be managed in accordance with the legislative requirements. It is essential that RNE are managed by SI due to their impact on safety, operational capability, equipment availability and whole life cost. RNE, subject to SI requirements, are tracked through-life by the use of a materiel asset code (MAC) and SII, the Equipment Registration Mark (ERM)[11]. MOD policy for the management of RNEs is currently under development, for further details please contact DES JSC SCM-SCPol-PolDev (Stuart Langridge).

8. The following areas have a role in the management of MOD vehicles:

a. **DE&S PT.** PTs procure vehicles against a 'Liability' set by the Capability Sponsor in MOD and manage them as fleets against subsequent unit entitlement. PTs maintain the through-life management responsibility for the vehicles, including modification and eventual obsolescence and disposal. PTs are to ensure that the equipments are registered on the mandated MOD information system and that ERM or VRN details are notified to the contractor so that vehicles can be delivered displaying the correct registration details.

b. **Front Line Commands (FLC).** FLCs are responsible for managing the vehicle fleets within the respective FLC through its own chain of command. HQ LF as the principle user of vehicles has the major FLC role.

c. **SCM Census Team Chilwell.** The Census Team is responsible for accounting for vehicle assets and maintaining the integrity of MERLIN. This includes 4 functions: processing formal documentation to allow receipting into service, subsequent location movements and disposal; conducting an annual census of all deployed vehicle

[11] The ERM is also often referred to as the Vehicle Registration Number (VRN). Vehicles also have a Vehicle Identification Number (VIN) which is normally stamped into the chassis.

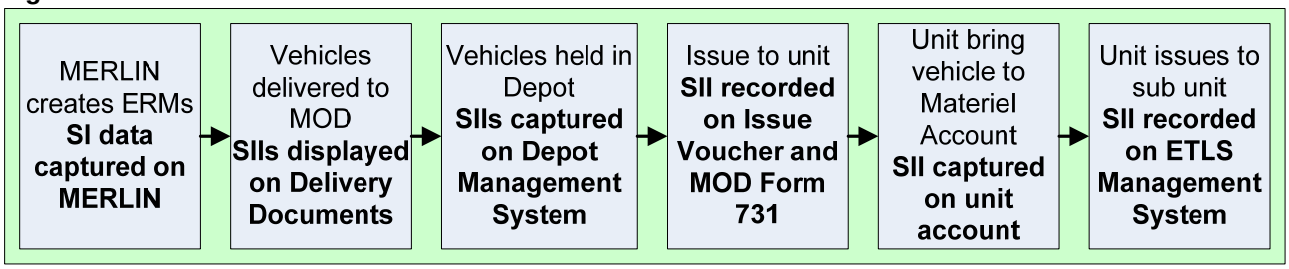
assets; managing vehicle nomenclature codes and allocating ERMs for overseas Local Purchase Order assets.

d. **Vehicle Depot Ashchurch.** The depot is responsible for receipting and storing vehicles for subsequent issue on the direction of the owning PT.

e. **Units.** Units are responsible for the care and maintenance of those vehicles issued to them. As vehicle custodians they are complete all materiel accounting and ETLS transactions required and completing census returns.

9. The process for capturing the supply management and SII data for RNEs can be seen at Figure 2 below:

Figure 2: Process for RNE SII Data



CHAPTER 3: ENGINEERING MANAGED ITEMS

INTRODUCTION

1. The application of engineering through-life support (ETLS) functions is essential to achieving the successful and effective through-life support of military capability while optimising whole-life costs.

2. The ETLS functions are facilitated by the special identification (SI) of assets and equipment. The 3 main outputs of ETLS and their detailed activities are shown below in Figure 3.

Figure 3: ETLS Functions

Function	Activities
Configuration Management[12]	Manage design repository for logistic, capability and safety significant design information Maintain linkage of design to Safety Case, Environment case and as-used configuration. Create and maintain maintenance policy Optimise and sustain reliability Maintain the illustrated parts catalogue Maintain training and maintenance guides. Manage component life and obsolescence.
Fleet Management	Describe role configurations Manage equipment baseline and role configurations. Manage equipment build and maintain structures. Manage equipment role structures. Manage equipment and platform modifications. Ensure as used configuration meets safety and environmental requirements by ensuring that as-used is within as-designed limits.
Maintenance Management	Monitor condition Predict failure Record, analyse, sentence and monitor faults Calculate and derive factored life Record in-use data (health, usage, failure) Record and track asset location Schedule maintenance Undertake inspections Manage maintenance execution /control and recording and monitor maintenance schedules Maintain engineering registers

ENGINEERING MANAGED ITEMS

3. Engineering Managed Items (EMIs) are defined as those items within the Defence inventory which are subject to ETLS requirements: platforms, equipment, modules, systems, sub-systems or discrete items that need to be individually managed through-life because of their potential to impact on safety[13], operational availability, legislative compliance or cost. Typical examples of EMIs are pressure vessels or life rafts which have a definite lifespan. EMIs are managed so that their material condition, modification state, configuration and physical location are known at all nodes of the support chain from

[12] Configuration Management policy is contained within JSP 886 Volume 7 Part 8.12 and should be read in conjunction with this document.

[13] Specific arrangements for the management of safety critical items - DEFSTAN 05-61, Part 9: 'Quality Assurance Procedural Requirements' define safety critical items as 'an assembly or installation stage or test of a system, or its components of which; the consequences of an error or failure could introduce a hazard to the system, personnel or environment.

manufacture to the point of use, through the reverse supply chain to repair, and from repair to base stock[14][15] and will be subject to the ETLS functions and activities described above in Table 1.

4. A Product Breakdown Structure[16] (PBS) is used to describe the hierarchical structure of EMIs subject to maintenance, repair, modification and overhaul (MRMO) and managed by a unique reference. Detailed PBS information can be found at JSP 886 Vol. 7 Part 2 (Appendix 1 to Annex M - 00.03.03.01) and Part 3 (chapter 1, paragraph 13e and chapter 5, paragraph 14f).

CHARACTERISTICS

5. To enable effective through-life support of EMIs it is important that the owner (PT) and custodian (user) are able to view and track the materiel condition, modification state, configuration and location of the asset through all nodes and points in time of the E2E support chain. The identification and effective through-life management of items classified as an EMI is enabled by the use of special identification (SI) and includes the following:

a. NATO stock number (NSN) or Materiel Asset Code (MAC).

b. A special item identifier (SII) such as a serial number, equipment registration mark (ERM) or vehicle identification number (VIN).

c. A statement of capability to include:

(1) Design intent with permissible configurations and designed life.

(2) A current record of the ‘as-is’ configuration, including modification state.

(3) Materiel condition (MATCON).

(4) Life remaining (where applicable).

(5) Shelf life, stock maintenance periodicity, calibration due date.

d. A record of the asset history, to include: issue, receipt, location, embodiment, usage, damage, conditioning, maintenance, repair, modification, consumed life, operating conditions. EMIs are to be managed on the Log NEC mandated ETLS management system as follows:

(1) UMMS for the Maritime environments.

(2) JAMES (Land) for Land equipments.

(3) LITS for the Air Fixed Wing equipments.

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[14] Specific arrangements for the management of safety critical items - DEFSTAN 05-61, Part 9: ‘Quality Assurance Procedural Requirements’ define safety critical items as ‘an assembly or installation stage or test of a system, or its components of which; the consequences of an error or failure could introduce a hazard to the system, personnel or environment.

[15] Once ‘in-service’ equipment EMIs can go through the repair cycle and be re-issued from base stock multiple times until the point of final disposal.

[16] Also sometimes referred to as an Equipment Breakdown Structure (EBS)

(4) WRAM for the Air Rotary Wing equipments[17].

6. Detailed requirements can be found within the respective user guides as follows: LITS, WRAM, JAMES and UMMS.

7. Proposals for an alternative system for EMI management, as part of a project support solution, must be endorsed by the Log NEC Programme via the Log NEC 'Front Door'.

REQUIREMENTS

8. It is essential that the PT fully understands the additional resources required for the ETLS management of items of inventory designated as an EMI. To enable the successful through-life support element of military capability while optimising whole-life costs it is essential that:

a. PTs establish from Supportability Analysis activity outputs, which items require designation as EMIs during the development of their support solution; spares and S&TE items should be identified during the initial provisioning process. The Supply Support Plan must include the provision of a list of EMIs and their SIIs, which can be loaded onto the mandated inventory and through-life engineering support (ETLS) management systems.

b. PTs include the requirement for the provision of a statement of the data and information[18] to be exchanged through-life between ETLS and inventory management systems, within the project Logistic Information Plan (LIP), related to the endorsed information system(s) provided to support it through-life.

c. PTs make provision for the procurement of the necessary through-life EMI data, and for that data to be loaded onto the mandated ETLS management system[19].

d. PTs understand the increased resource requirements, both within the PT and FLCs, required to manage EMIs through-life.

e. PTs identify which EMIs will be subject to embodiment and/or role fit through their life[20].

f. EMIs will meet the required levels of operational availability to meet the military capability requirements of the operational commander.

g. EMIs will meet the through-life safety and environmental legislation, contractual and information management requirements of the MOD and other government departments or their contractors. The safety management requirements for Defence systems are specified in DEFSTAN 00-56.

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[17] WRAM is due to be subsumed into GOLD ESP during 2011.
[18] Policy, advice and guidance on the Management of Support Information can be found in JSP 886 Volume 7 Part 5 and should be read in conjunction with this document.
[19] For EMIs managed on JAMES (L) the PT is to ensure that their contractor completes a JAMES Data Collection Template (JAMES DCT) to enable the creation of an asset "Type" and subsequent "Instance" (The descriptions "Type" and "instance" are JAMES (L) specific. Details will be contained within the JAMES User Guide).
[20] PTs should be aware of any EMIs held as assets in industry under DEFCON 23 or DEFCON 611 arrangements that will return to MOD embodied into a higher assembly.

h. EMI support costs will be managed from a 'Whole Life' perspective and continually reviewed and optimised through-life.

i. The materiel condition, modification state, configuration and location of EMIs are visible at all nodes of the support chain from manufacture to the point of use, through the reverse supply chain to repair, and from repair to base stock[21].

j. PTs must ensure effective ETLS management for all EMIs held on the PT DEFCON 23 and DEFCON 611 registers. This may involve industry carrying out periodic maintenance, calibration or modification to MOD assets and recording the details on the relevant ETLS management system.

CONFIGURATION MANAGEMENT

9. To ensure that EMIs meet their requirements, their configuration must be effectively managed in-service. In order to implement an effective configuration management (CM) process it is necessary to first undertake a rigorous planning exercise. CM and Planning should be undertaken initially by the PT and then the Supplier, upon contract award. The CM Plan (CMP) details how configuration management will be accomplished and how consistency between the product's configuration records and the product's configuration is achieved, maintained and verified through-life. Planning for the CM of EMIs and their interfaces is essential. The plan will define the organisation and procedures used to manage the configuration, both functional and physical, of the product, and the configuration items throughout the life of the project. For EMIs there are 3 key levels of configuration to be considered:

a. The as-designed configuration, which is typically maintained by a Design Authority and represents the complete configuration. The as-designed configuration is linked to the equipment Safety Case. Standards required for design configuration management are set by DEFSTAN 05-57. For given equipment, there may be a range of approved as-designed configurations.

b. The as-supported configuration, which is the basis for ILS. It covers those aspects of configuration which are relevant to the development and through-life management of in-service support, and for alignment of spares catalogues, technical publications, support equipment and other support requirements. Policy for ILS management is set in JSP 886 Volume 7 and defined in DEFSTAN 00-600. For given equipment, there may be a range of approved as-supported configurations.

c. The as-used configuration. This differs from the others, as it applies to an individual asset, not to a population. The as-used configuration should match an as-designed and as-supported configuration, or allow recording of any authorised deviations.

FLEET MANAGEMENT

10. Fleet management of EMIs is the support and sustainment of a set of assets that deliver the same function, that is both necessary and sufficient, to allow the assignment of the right assets, in the right place, at the right time, in the right condition and at the right cost in order to support the delivery of military capability. A statement of the information to

[21] It is essential that EMI management continues during periods of storage in base depots. Arrangements need to be put in place for periodic stock maintenance, inspection, materiel conditioning, calibration, re-packaging and pre-issue inspection.

be exchanged between asset and fleet stakeholders, within the LIP, related to the endorsed ETLS information system provided to support it, is an essential requirement for effective fleet management. Procedures for fleet management are contained within Land Forces Standing Order 4532.

Safety & Engineering Assurance

This policy document should be read in conjunction with the Director Safety & Engineering Assurance Policy. The through-life management of EMIs should be a key consideration of the PT Safety & Engineering Assurance process.