



**Ministry
of Defence**

**JSP 945
MOD Policy for Configuration Management**

Part 1: Directive

Foreword

This Joint Service Publication (JSP) is prepared on my behalf as the Defence Functional Authority for Technical, Quality and Standardisation. It promulgates the policy and requirements for Configuration Management (CM) across the Ministry of Defence (MOD).

CM is a key engineering function. Its application is a critical enabler for safety, functionality, supportability and cost. The objective of CM is to define a Capability and its supporting documentation by recording specifications. It will be enacted to the lowest appropriate level.

CM formally records the through life management of change and provides traceability of the evolution of the user requirements through supporting documentation. This information can be used later in the Capability Lifecycle to influence decisions, improve design, enhance maintainability and reduce cost.

Effective CM interfaces allow:

- a. an assessment to be made of the Defence Lines of Development (DLOD) interaction or dependency.
- b. the Capability to be tailored to suit the operational environment / duration of the deployment.
- c. the improved operation of the Capability either independently or in conjunction with other coalition capabilities.

Changes to the Capability may be introduced to mitigate or nullify the effects of product (either hardware or software) deterioration due to factors such as, ageing, service use, corrosion, or repair on repair. Changes may also take the form of in-service modification to improve safety, reduce risk, mitigate obsolescence, improve performance, improve supportability, comply with legislative or regulatory changes, provide enhanced capability and allow for technology insertion or the correction of product defects.

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Preface

How to use this JSP

1. JSP 945 is a policy document and shall be applied across all MOD Organisations responsible for the development, procurement and logistics support of Defence Capability. Should the acquirer act in collaboration with another NATO nation, ACMP 2100 should be applied.
2. Any deviation from this policy shall only be considered in exceptional circumstances. Delivery Teams are to consult with the Quality and Configuration Management Policy Team before applying alternative means of compliance, which are then to be documented, with the supporting rationale for the deviation. Any deviation from directives contained within Defence Functional Authority JSPs will require a concession which can be found via the reference below:

<http://daportal.gateway.isg-r.r.mil.uk/Portal/SitePages/Portal.html#daconcessions>

This JSP contains the policy and direction on CM across the MOD. The guidance on the application of this policy is published within JSP 945, MOD Policy for Configuration Management Part 2: Guidance.

3. This JSP is published in accordance with the direction on all JSPs following adoption of the MOD's New Operating Model, set out in 'How Defence Works'.

Coherence with other Defence Functional Authority Policy & Guidance

4. Where applicable, this document contains links to other relevant JSPs Standardisation Agreements (STANAGs), Defence Standards (DEFSTANs) or Allied Configuration Management Publications (ACMPs), some of which may be published by different Defence Functional Authorities or Functions. Where particular dependencies exist, these other Defence Functional Authorities have been consulted in the formulation of the policy and guidance detailed in this publication.

The list below also contains publications which whilst not under MOD control or influence, provide further information on CM and its application.

Related JSPs & Publications	Title
JSP 940	MOD Policy for Quality
JSP 935	Software Acquisition Management for Defence Equipment
DEF STAN 05-057	Configuration Management of Defence Materiel
ACMP 2100	NATO Configuration Management Contractual Requirements for Materiel
EIA649B	Configuration Management Standard
ISO 9001	Quality Management Systems - Requirements
ISO 10007	Quality Management Systems – Guidelines for Configuration Management
ISO 15288	Systems and Software Engineering - System Life Cycle Processes

Functional Management and Training

5. CM, together with Government Quality Assurance and Quality Management combine to build confidence that the product supplied to the end user is fit for purpose. CM is a critical enabler for equipment safety and supportability throughout a product's lifecycle. The term product relates to product or service and may comprise hardware or software or a combination of these factors.

The Defence Functional Authority for Technical, Quality and Standardisation is also the Deputy Head of Profession for CM. Responsibilities include championing the Configuration profession across all civilian and military staff in the Defence workforce.

The Deputy Head of Profession sponsors the MOD civilian functional competencies for CM and supports the development of individuals to ensure capable, suitably qualified and experienced personnel in CM across the department. The Deputy Head of Profession also maintains a strategic overview of Configuration specific competences and training available across all MOD Top Level Budget areas, including the training courses for CM.

The two CM training courses are:

- Principles of Configuration Management.
- Configuration Management for Practitioners.

Further Advice and Feedback – Contacts

6. The owner of this JSP is the Defence Functional Authority for Technical, Quality and Standardisation. For further information on any aspect of this policy document, or questions not answered within the subsequent sections, or to provide feedback on the content, contact:

Job Title/Email	Project focus	Phone
DES-QCM-Policy-Helpline@mod.gov.uk	MOD Configuration Policy	Civ: +44(0)30679 32681 Mil: 9679 32681

Version History

Date	Version	Summary of Change
January 2016	1.0	Initial issue
December 2021	2.0	JSP updated to: <ul style="list-style-type: none">• Correct minor errors.• The previous version referred to the generic term of Configuration Management Plan. The new version differentiates between The Project Configuration Management Plan (the MoD intentions) and the Deliverable Configuration Management Plan (written under contract iaw DEF STAN 05-057)• The previous version focused on Configuration Management of the product. The new version includes the requirement to include supporting documentation within Configuration Management.

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1 MOD Configuration Management Policy

1.1 Introduction

This JSP derives authority from the Letter of Authority as Defence Functional Authority for Technical, Quality and Standardisation. CM, Government Quality Assurance and Quality Management combine to build confidence that the product supplied to the end user is fit for purpose. CM is a critical enabler for equipment safety and supportability throughout a product's lifecycle.

1.2 Configuration Management

CM must be considered at the earliest stages in the capability lifecycle as it provides traceability of user requirements through to the eventual manufacture of equipment, development of software or the provision of a service. The objective of CM is to define and manage the system's physical and functional characteristics by traceable specifications, datasheets, drawings and related documentation. This will identify configuration to the lowest appropriate level, required to assure repeatable performance, standardisation, safety, quality, reliability, availability, maintainability, traceability, interchangeability, supportability and interoperability as well as establishing system / sub-system interfaces.

Supporting documentation that affects the configuration of the Capability will also benefit from its own CM. This can include technical drawings, specifications and standards relating to equipment, service, software and firmware.

CM is the through life management of changes to the product or services through the Concept, Assessment, Demonstration, Manufacture, In-Service and Disposal cycle. It enables changes and different build standards to be traced back to the system requirements. These changes may be introduced to mitigate or nullify the effects of product deterioration due to ageing, corrosion or repair on repair. The changes may also take the form of in-service modification to improve safety, reduce risk, mitigate obsolescence, improve performance, improve supportability, comply with legislative changes, provide enhanced capability, allow for technology insertion or the correction of product defects.

1.3 Applying Configuration Management

All MOD Organisations responsible for the development, procurement and logistics support of Military Capability **shall**:

- a. Develop and Document a CM Strategy. The strategy shall evolve into a Project CM Plan (PCMP) defining how this will be implemented, where responsibilities lie and timescales as the project progresses through the project life cycle. Depending on the complexity and risk within the project, the MOD organisation may contract for a Deliverable CM Plan (DCMP). The DCMP shall be in accordance with Defence Standard (Def Stan) 05-057.
- b. Ensure the Configuration Status is defined and traceable to the User Requirements at acceptance and before the product is brought Under Ministry Control (UMC).

- c. Assign a suitably competent person who is responsible for the application of CM and who is to ensure that all CM activities are implemented and formally recorded.
- d. Ensure effective CM for the product throughout its lifecycle invoking Def Stan 05-057 in procurement and logistics support contracts if the MOD organisation has chosen to contract CM of defence materiel.

The continued drive for value for money has increased the use of Commercial Of The Shelf (COTS), Military / Modified Of The Shelf (MOTS) and Non-Developmental Items (NDI). These items shall also be subjected to CM. If such items are to be excluded from CM, MOD Organisations must state the reasons why and demonstrate that the risks in doing so have been adequately addressed. This information must be clearly articulated in the CM Plan.

1.4 Configuration Management Principles

The MOD Organisation Team Leader is ultimately responsible for the implementation of Configuration Management policy and ensuring the 5 Key CM Principles are applied appropriately, as follows:

- a. **CM and Planning.** CM describes the activities and processes required to ensure that changes to the Configuration Items (CIs) happen in a controlled and traceable environment. The Project Configuration Management Plan (PCMP) details how and when these activities and processes will be carried out. The PCMP itself will be subject to CM (version control) and will be reviewed at a periodicity set by the document owner.
- b. **Configuration Identification.** An activity that identifies a component, document or assembly, referred to as a CI by its physical, functional, or performance characteristics. This can be by means of drawings, specifications (both hardware and software), or datasheets. Not all items are classified as CIs. The classification of an item as a CI can be decided by the Design Organisation or by mutual agreement between the Project Team and the Original Equipment Manufacturer (OEM). The item must conform to strict criteria detailed in the Configuration Management documentation.
- c. **Configuration Change Management (Control).** CCM (or CCC) is the through life management of changes to the CI. CCM identifies the Authority responsible for changes and enables decisions to be made on proposed changes. CCM also manages the integration of changes to the product's design and ensures that any interfacing or interoperability issues are managed and resolved. CCM details the requirement for configuration control boards and committees as well as establishing the Terms of Reference (TORs) for attendees.
- d. **Configuration Status Accounting.** Provides a record of the build state of the CIs both past and present. It will contain a record of proposed changes, waivers, deviations and the implementation status of authorised changes. It will also contain a record of the identification numbers, a record of Configuration Documentation, as well as the record of the results from Functional and Physical Configuration Audits.
- e. **Configuration Audit.** There are two types of Configuration Audit:
 - (1) Functional CM audit verifies that the item has achieved the stated performance and functional characteristics specified in the requirements configuration documentation.

(2) Physical CM audit is an examination of the as-built (as compiled in the case of software) configuration of an item compared against its design documentation or the latest authorised build standard.

A more detailed description of the 5 Key Principles of CM can be found within the Engineering Section on the Knowledge in Defence.