



Ministry  
of Defence

**Quality in your Pocket**



## MANAGING QUALITY IN DEFENCE

### Foreword by Defence Authority for Technical and Quality Assurance



Tim Rowntree  
BTech MA CEng MIET FRAES

“Quality is everyone’s responsibility and it is imperative that the products and services we deliver are safe, fit for purpose and meet the requirements of our customers. Ensuring the agreed quality standards are met is key to achieving this. This Pocket Guide provides potted guidance covering the essentials of Quality across UK

MOD and I therefore commend this Pocket Guide to you and your staff.”

### Foreword by Quality and Configuration Management Policy Deputy Head



Dave Thomas  
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“The Defence Purpose is to ensure we are prepared for the present and fit for the future. This Pocket Guide enables you to achieve this purpose by having the fundamentals of Managing Quality at your fingertips. It summarises key points of the MOD Quality Policy from JSP 940 and the Knowledge in Defence (KiD) aimed at

providing all Civil Servants and Military Personnel, irrespective of TLB, bite-sized chunks of information that is both simple to carry and access. You should use this during any activity acquiring and supporting equipment and services for the Armed Forces.

For further detailed information, please refer to:

- JSP 940 Pt.1 and Pt.2– MOD Quality Policy Directive and Guidance
- JSP 945 Pt.1 and Pt.2– MOD Configuration Management Policy Directive and Guidance
- KiD Managing Quality website (see Useful Websites)
- MOD QCM Policy webpage on DEFNET for internal MoD users, type “QCM Policy” into the search box to find us.
- UK Defence Quality and Configuration Management Policy GOV.UK webpage for external users.
- Alternatively, you may seek assistance from expert staff via the QCM Policy Helpline (see back cover). “

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## 1. INTRODUCTION

### 1.1 What Quality is About

Quality is about meeting the needs and expectations of the customer by doing the right things at the right time. The benefits of applying sound quality management are savings to time, cost, and waste while improving performance and safety.

### 1.2 MOD Policy for Quality

JSP 940 MOD Policy for Quality Part 1: Directive, contains the policy and direction that must be followed in accordance with Statute or policy mandated by Defence or on Defence by Central Government.

JSP 940 MOD Policy for Quality Part 2: Guidance, provides the means of compliance, guidance and best practice that will assist the user to comply with the Directive(s) detailed in Part 1.

Knowledge in Defence (KiD) gives guidance to MOD staff on policy and process. The Managing Quality topic within the KiD provides more in-depth guidance in support of JSP 940.

### 1.3 Definition of Quality

“The degree to which a set of inherent *characteristics* of an *object* fulfils *requirements*”. (ISO 9000:2015)

### 1.4 References

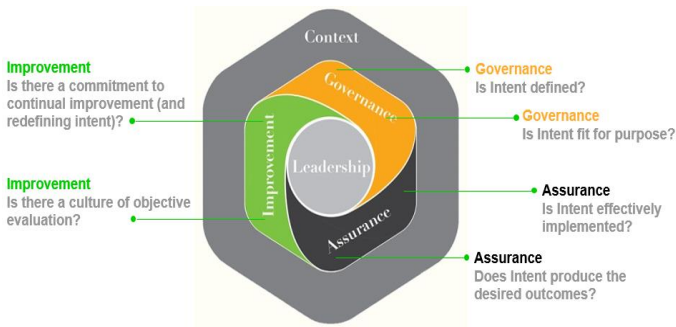
There are number of key reference documents that support JSP 940, these include: NATO Allied Quality Assurance Publications (AQAPs); International Standards Organisation (ISOs) and British Standards (BS); Joint Service Publications (JSPs); Defence Contract Conditions (DEFCONS) and Defence Standards (DEFSTANs).

Many are directly referenced throughout this Quality in your Pocket, but a full list is in JSP 940 Pt 2, Section 1.4.

## 2. GOVERNANCE, ASSURANCE AND IMPROVEMENT

Forming the basis of all MOD Quality policy, applying the Governance, Assurance and Improvement (GAI) Model will ensure the interests of customers and stakeholders are understood; that appropriate methodologies are established to mitigate risk and protect reputation; and improve ways of working to maximise effectiveness and eliminate unnecessary costs.

### *The Governance, Assurance & Improvement (GAI) Model*



The MOD has adopted the Chartered Quality Institute GAI model as the basis for its Quality Governance structure. This is reflected in the policy and structure within JSP 940. All Top Management within MOD Organisations shall implement the requirements for GAI as follows:

- **Governance:** Ensuring that organisation requirements are reflected in operational frameworks, policies, processes and plans, and that these meet stakeholder requirements.
- **Assurance:** Embedding the principles of assurance to ensure that policies, processes and plans are effectively implemented, and that all outcomes (both internal and deliverable) are

consistent with requirements.

- **Improvement:** Facilitating the principles of measurement, evaluation, learning from experience and improvement, which drives more effective, efficient and agile ways of working to support business strategy, to enhance reputation and increase value for money and savings.

*You can find out more in Managing Quality Section on the KiD.*

### 3. QUALITY MANAGEMENT

#### 3.1 What is Quality Management?

“Quality Management (QM) is the process of ensuring that all the activities necessary to deliver organisational outputs meet customer and stakeholder requirements; that they are planned and carried out, efficiently and effectively. QM needs to be governed, assured and improved ensuring the delivery of high standard products, services and outcomes critical to MOD Organisations.” as described JSP 940 Pt 2, Chapter 3.

In meeting the MOD policy requirements for QM, all Top Management within MOD organisations shall:

- Take responsibility for the quality of the products, services, capabilities or information they are managing, and for controlling the internal MOD processes required to deliver them.
- Develop and implement a Quality Management System (QMS) using the principles defined in the ISO 9000 standard. (See Quality Management Principles).
- Ensure that suitably qualified and experienced personnel are developed and employed across the department to enable the effective delivery of Quality Management (QM) and Government Quality Assurance (GQA).

### 3.2 Quality Management Principles

ISO 9000 introduces seven Quality Management Principles (QMPs) upon which effective Quality Management is based. These guide an Organisation towards improved performance and delivery of products that meet customer requirements:

- QMP 1: Customer Focus - The primary focus of QM is to meet customer requirements and to strive to exceed customer expectations.
- QMP 2: Leadership - Leaders at all levels establish unity of purpose and direction and create conditions in which people are engaged in achieving the organisation's quality objectives.
- QMP 3: Engagement of People - Competent, empowered and engaged people at all levels throughout the organisation are essential to enhance its capability to create and deliver value.
- QMP 4: Process Approach - Consistent and predictable results are achieved more effectively and efficiently when activities are understood and managed as interrelated processes that function as a coherent system.



- QMP 5: Improvement - Successful organisations have an ongoing focus on improvement.
- QMP 6: Evidence Based Decision Making - Decisions based on the analysis and evaluation of data and information are more likely to produce desired results.
- QMP 7: Relationship Management - For sustained success, an organisation manages its relationships with interested parties, such as suppliers.

### 3.3 Quality Management Operational Framework

In order to establish a management system, there are key elements to be considered, all of which are centred on Leadership.



These are shown here but further details on each element can be found in JSP 940 Pt 2, Section 3.3.

*You can find out more in Managing Quality Section on the KiD.*



## 4. GOVERNMENT QUALITY ASSURANCE (GQA)

### 4.1 Introduction

Government Quality Assurance (GQA) consists of multiple activities to be applied at all levels of Ministry of Defence (MOD) Acquisition i.e. Procurement and Support. As part of an applied Quality Management System (QMS), its primary role is to deliver technical assurance to the MOD for the management of risk; both internally and across the contractual boundary where applicable for achievement of the Defence Lines of Development.

GQA in acquisition is broken down into 6 separate stages that reflect the Acquisition Cycle. These are:

- Planning for Acquisition.
- Requirements Preparation.
- Supplier Selection and Contract Award.
- Contract Execution.
- Delivery.
- Acquisition Conclusion.

The activities and benefits of GQA in each stage are further detailed in the document '**Government Quality Assurance - A Framework for Acquisition**'. Details on policy and guidance governing these stages are referenced in JSP 940, Part 2, Chapter 4 and also in the Managing Quality Section on the KiD.

Key activities within the GQA Framework are explained below.

### 4.2 Planning for Quality

Planning for Quality is a process where stakeholder (customer, project and business) quality requirements are captured, planned, embedded, measured, and continually improved upon throughout the life of the project. This is achieved through the application of approved and accepted quality planning using a Plan-Do-Check-Act (PDCA) philosophy and the principles of Through Life Management.



Effective quality planning is required to be conducted and documented for the procurement and support of all products supplied to the MOD.

Quality planning in the MOD should be conducted by a Competent Quality Practitioner within a structured process as part of a MOD Organisation's adherence to their QMS and

should adopt the following 8 principles:

- Be initiated at the outset of a Project.
- Involve all Stakeholders.
- Be appropriate to the size and scope of the Project and the associated Risks.
- Facilitate the achievement of Project/Contract requirements.
- Include the whole Supply Chain.
- Be an iterative process throughout the Project lifecycle.
- Promote a 'right first time on time' culture.
- Build upon a principle of continual improvement.

#### *Project Quality Management Plan*

The Project Quality Management Plan was developed to provide a generic format for capturing the Planning for Quality requirements, incorporating the hierarchical planning elements in a single document. To ensure that internal MOD acquisition quality activities are appropriate and implemented, the Acquisition Organisation is expected to apply a tailored planning approach to the achievement of quality for an acquisition and/or support contractual activity.

### **4.3 Requirements Preparation**

Requirements Preparation deals with the determination of the Quality requirements for the contract and the appropriate Supplier assessment measures.

## *Appropriate Certification*

In meeting the MOD policy requirements for GQA, all Top Management within MOD Organisations shall as a minimum 'only place MOD contracts with Suppliers who can demonstrate that they have a QMS appropriate for the products or services being acquired'. The application of the Appropriate Certification for a specific contract is dependent upon any applicable regulatory requirements and the severity of risk associated with the acquisition contractual requirements; from both a technical and complexity perspective. The requirement for a Supplier to have an appropriately certified QMS is mandated where:

- a. regulatory requirements for Supplier QMS certification exists (i.e. domain specific Supplier certification).
- b. A Very High / High Risk Project

Appropriate Certification is defined as:

- **The Right Standard** – a recognised European [Euro Norm - EN] QMS standard.
- **The Right Scope** – registered scope of work on the certificate covers intended acquisition.
- **The Right Issuing Body** – certification was issued by a Certification Body holding suitable accreditation, with the right scope, from a National Accreditation Body who is a signatory of the International Accreditation Forum (IAF) or IAF Accredited Regional Multi-Lateral Agreements.

## *Selecting Quality Assurance Requirements for Contracts*

Quality Assurance (QA) provides confidence that robust plans are developed, implemented, monitored and improved with the goal of achieving fit for purpose outputs, on time delivery and within budget. To achieve fit for purpose outputs and meet the mandated requirements for quality, the correct QA requirements and standards must be selected for use in MOD contracts. Refer to the Selection Flowchart and supporting table at Annex B and C of Chapter 4 in JSP 940 Pt.2 when selecting the Standard QA contract requirements.

## *Standard Quality Assurance Contract Requirements*

Standard QA requirements are categorised as either:

- Primary – the main requirements for a QMS; or
- Supplementary –that supplement the QMS for a specific purpose.

In meeting the MOD policy requirements for GQA, all Top Management shall “ensure all MOD contracts include a section entitled Quality Assurance Requirements, and that all Contract Requisitions shall have had the Standard Quality Assurance Contractual Requirements endorsed by a member of MOD staff who is an Authorised Quality Assurance Signatory”.

### *Primary Quality Assurance Requirements*

Primary Standard Quality Assurance Contractual Requirements are expressed in the NATO Primary Allied Quality Assurance Publications (AQAPs). AQAPs contractually invoke compliance with ISO 9001 or BS EN 9100, including NATO specific requirements, which are to be applied to the provision of products and services. They are not certification standards, and they do not mandate that a supplier must have a certified QMS. AQAPs contain the requirements which, if applied appropriately, provide confidence in the Supplier’s capability to deliver a product that conforms to the Acquirer’s contract requirements. The Primary AQAPs contain generic requirements that are complimentary to other contractual requirements and are to be considered for all suppliers to the MOD regardless of type, size and product. Note: Where the need for a primary AQAP has been identified, one and only one, of the primary AQAPs is to be included in the Statement of Requirements (SoR) and Contract Requisition (CR).

### *Supplementary Quality Assurance Requirements*

Supplementary QA requirements are provided to communicate MOD requirements related to the specific activities.

### Primary Quality Assurance Contract Requirements

AQAP 2110	NATO Quality Assurance Requirements for Design, Development and Production. It contractually invokes compliance with ISO 9001 QMS standard requirements
AQAP 2310	NATO Quality Assurance Requirements for Aviation, Space and Defence Suppliers. It contractually invokes compliance with BS EN 9100 QMS standard requirements.
AQAP 2131	NATO Quality Requirements for Final Inspection and Test. It is not directly linked to the Supplier's QMS.

### Supplementary Quality Assurance Contract Requirements

Software	For MOD contracts that include development or maintenance of either deliverable or non-deliverable software <b>AQAP 2210</b> - NATO Supplementary Software Quality Assurance Requirements to AQAP 2110 or AQAP 2310, shall be included. AQAP 2210 requires the supplier to apply additional controls to assure software quality. Note: ISO 25051: Software engineering – Software Product Quality Requirements and Evaluation (SQuaRE) is recommended as an informative standard for Commercial of the Shelf (COTS) Software.
Supplier Quality Plans	AQAPs 2110 and 2310 require the Supplier to submit a Quality Plan, this should be in accordance with <b>AQAP 2105</b> : NATO Requirements for Quality Plans and <b>DEFCON 602A</b> : Quality Assurance (with Deliverable Quality Plan) if the quality plan is to be delivered to the Authority. The inclusion of AQAP 2110 or 2310 in a contract must always be accompanied by either <b>DEFCON 602A</b> or <b>DEFCON 602B</b> : Quality Assurance (without Deliverable Quality Plan).

## Supplementary Quality Assurance Contract Requirements

Certificate of Conformity (CoC)	A CoC provides a method of formal assurance from the Supplier that the product(s) conform to contractual requirements. <b>DEFCON 627:</b> Quality Assurance - Requirements for a Certificate of Conformity, shall be used to contractually invoke CoC requirements for all contracts with a Primary AQAP or for design provenance / traceability.
Managing Concessions	The process for a Supplier to request, and the MOD to approve, concession is set out in <b>Def Stan 05-61: Part 1</b> - Quality Assurance Procedural Requirements Part 1: Concessions.
Contractor Working Parties	A Contractor Working Party (CWP) is comprised of one or more contractor's representatives contracted to undertake specific tasks outside of their own facility, usually on MOD premises. Where there is a likelihood that CWPs will be required to operate under a contract, the contract shall include <b>Def Stan 05-61: Part 4</b> – Quality Assurance Procedural Requirements Part 4: Contractor Working Parties, when AQAP 2110 and 2310 are not included in the contract.
Independent Inspection for Safety Critical Items	Wherever the likelihood exists that the Supplier will need to conduct independent inspections of safety critical equipment, systems, or where the contract includes 'one shot' escape and survival systems, the contract shall include <b>Def Stan 05-61: Part 9</b> – Quality Assurance Procedural Requirements Part 9 – Independent Inspection Requirements for Safety Critical Items.
Avoidance of Counterfeit Materiel	Where it is considered there is a risk of counterfeit materiel* in the supply chain, Def Stan 05-135 'Avoidance of Counterfeit Materiel' shall be invoked in the contract.

## *Counterfeit Materiel*

Counterfeit Materiel constitutes “Materiel whose origin, age, composition, configuration, certification status or other characteristics (including whether or not the materiel has been used previously) has been falsely represented by:

- Misleading marking of the materiel, labelling or packaging;
- Misleading documentation; or
- Any other means, including failing to disclose information.

Except where it has been demonstrated that the misrepresentation was not the result of dishonesty by a supplier or sub-supplier within the supply chain.

**DEF STAN 05-135:** Avoidance of Counterfeit Materiel, when applied to a contract, dictates that the supplier shall have a defined and documented policy for the avoidance of counterfeit materiel, including the requirement for an Anti-Counterfeiting Management Plan (ACMP). The ACMP shall be made available to customers on request. The supplier shall have arrangements in place to manage the risk of counterfeit materiel in their supply chain.

The **Counterfeit Avoidance Maturity Model (CAMM)** has been developed as a support tool for the MOD and its Suppliers; it is intended to provide a consistent interpretation of **DEFSTAN 05–135**. The CAMM reflects good practice from across industry and establishes a level of maturity for a Supplier’s processes. NATO AQAPs now include requirements on Counterfeit Avoidance, with supporting guidance in the Standards Related Document (SRD) that support the AQAP. NATO has also produced Standardisation Recommendation (**STANREC**) **4791** which identifies a number of civil standards that address counterfeit material.

The **Counterfeit Avoidance Working Group (CAWG)** is a MOD led Working Group, with representation from MOD and Industry, who provide direction, through policy and guidance, on the aspects of preventing, detecting and responding to the threat of counterfeit materiel within defence acquisition.

## *MOD Requirements for Flight Indemnity*

**DEF STAN 05-100:** Ministry of Defence Requirements for Aircraft Flight and Ground Running. When the contract requires a Supplier to undertake flight and engine ground running of military registered aircraft allotted to the Supplier the MOD Acquisition Organisation Team Leader will need to ensure:



- That the contractor accepts liability for the aircraft; or
- On a value for money basis, agree to the provision of MOD indemnity in accordance with DEFCON 638 and Def Stan 05 - 100 in the contract.

## *Quality Performance Indicators*

Measurement analysis and improvement relies on objective evidence and understanding of how the quality of products and/or services delivered to the front line is changing, and how well the associated quality processes are working.

For all contracts, Quality Performance Indicators (QPIs) should be included in the contracts, in addition to the other performance measurements agreed by the Acquisition Organisation and Supplier.

## **4.4 Supplier Selection and Contract Award**

All GQA activity conducted during the Supplier Selection and Contract Award stage shall be conducted by competent/licenced GQA Practitioners and adhere to the Commercial Policy as defined



within the Commercial Toolkit on the KiD. To ensure Supplier compliance to the **MOD Appropriate Certification** policy, a competent/licenced Quality Practitioner shall assess submitted QMS certificates.

### *Pre-Contract Award Evaluation*

Pre-Contract Award Evaluation (PCAE) is one of a number of Tender Assessment (TA) tools that may be used to mitigate or identify risks associated with a specific tenderer or the associated bid. It is a systematic evaluation of a tenderer's ability to meet draft



contract requirements and is undertaken by the acquisition team, at the tenderer's premises, in support of project TA activities.

For the PCAE to be effective, the acquisition team should ensure that individuals evaluating the Tenderer's QM controls are, as a minimum, a competent Quality Practitioner. More information on the PCAE can be found in the Tender Preparation and Process Management Commercial Policy Statement in the Commercial Toolkit on the KiD.

## **4.5 Contract Execution**

The Contract Execution stage is when the Supplier works towards realising the equipment or service to the requirements specified in the contract thus validating the Acquirer's strategy for the acquisition.

### *Supply Chain Government Quality Assurance (GQA)*

GQA within NATO, under STANAG 4107, is defined as the process by which National Authorities establish confidence that the

contractual requirements relating to quality are met. Within the supply chain this is to be conducted by an authorised GQA Representative (GQAR) organisation through the conduct of GQA Surveillance (GQAS). UK MOD delivery teams are to apply the Risk based GQAS process when tasking GQARs.

#### *Government Quality Assurance Representative (GQARs)*

GQARs are the personnel with responsibility for GQA, within the supply chain, acting on behalf of the Acquirer.

#### *Government Quality Assurance Surveillance (GQAS)*

GQAS is defined as the systematic and regular monitoring of the contractual elements of the Supplier's QMS, processes and products, to provide confidence to the acquiring nation that the Supplier is fulfilling the requirements of the contract.

Within the UK, GQAS can only be performed by a registered GQAR organisation. This is to ensure that the MOD maintains a consistent engagement with industry. MOD ensures the organisation uses competent GQAR practitioners, that follow the procedures agreed by NATO nations under **STANAG 4107** and defined in **AQAP 2070: NATO Mutual GQA Process**.

There are currently three registered GQAR organisations in the UK. Two of these provided GQA services within their own delivery areas. The third is the Defence Quality Assurance Field Force (DQAFF) which provides GQAR services to MOD delivery teams and NATO nations that place contracts with UK suppliers. All GQAR organisations are tasked on the basis of risk in product delivery and the supply chain.

## *Overseas Quality Assurance*

Many MOD contracts are now placed with overseas suppliers or have global supply chains. When contracting for quality and managing quality aspects in overseas contracts many basic principles are the same as for domestic contracts;



however, if the contracts are placed with suppliers in NATO countries then we are able to access GQA services from the NATO nation who has signed up to STANAG 4107. Requests for GQA must be in accordance with AQAP 2070: NATO Mutual Government Quality Assurance Process, GQA procedure and associated templates and guidance. Where a nation is not within the NATO alliance and signed up to the STANAG, which includes NATO Partners for Peace (PfP) then GQA will be subject a bilateral agreement under a Memorandum of understanding (MoU) or a Implementing Arrangement (IA) under an MoU.

### **4.6 Delivery**

The Delivery stage is concerned with the Supplier's presentation of products or services that conform to the requirements of the contract. Activities during Delivery include:

- Verification of conformance for contract deliverables to the contractual requirements.
- Resolution of issues (including verification of any concessions issued).
- Completion of the contractual documentation in accordance with MOD and applicable regulatory requirements.

### **4.7 Acquisition Conclusion**

Activities conducted at this stage are concerned with reviewing the performance of both the MOD delivery team and the Supplier in delivering the project/contract over the acquisition lifecycle. GQA

Practitioner should ensure that all GQA activities are concluded, recorded and reported accordingly.

*You can find out more in Managing Quality Section on the KiD.*

## 5 QUALITY IMPROVEMENT

Quality Improvement is an essential aspect of QM and GQA. Tools and Techniques can be utilised to improve quality, manage change and deliver capability. There are a range of tools and techniques the Quality Practitioner can utilise to develop Quality Improvement.

### *Quality Improvement Tools and Techniques*

The Quality Improvement tools include:

- Learning from Experience.
- Root Cause Analysis.
- Brainstorming.
- The Cause and Effect Diagram.
- The 5 Whys.
- Plan, Do, Check, Act.
- Control Chart.



The Quality Improvement techniques include:

- DRIVE (Define, Review, Identify, Verify, and Execute).
- Six Sigma.
- DMAIC process (Define, Measure, Analyse, Improve, Control).
- DMADV process (Define, Measure, Analyse, Design Verify).
- Process Mapping.
- Statistical Process Control (SPC).
- Simulation.

*You can find out more in Managing Quality Section on the KiD.*

## 6 ROLES AND RESPONSIBILITIES

### 6.1 Defence Authority for Technical & Quality Assurance

The Defence Authority for Technical Quality and Assurance (DAT&QA) operates under a Letter of Authority from the MOD Permanent Secretary – D/PUS/11/4(264) – 05 Sep 18.

The DAT&QA vision for Quality in MOD is to: *“Ensure correct standards are maintained in delivering Defence Capability by the appropriate assurance of acquisition, engineering and logistics support activities through the coherent and effective management of Quality across Defence”*.

The DAT&QA is also the Deputy Head of Profession for Quality and responsibilities include ensuring that suitably qualified and experienced personnel are developed across the MOD to enable the effective and consistent delivery of Quality; championing the Quality profession across all civilian and military staff in the Defence workforce, under Ministry of Defence Head of Profession – Terms of Reference – April 2015.

### 6.2 Quality and Configuration Management Policy (QCM Policy)

QCM Policy as the executive arm of the Defence Authority for Technical and Quality Assurance (DAT&QA) are responsible for setting Ministry of Defence:

- Quality and Configuration Management policies and guidance.
- Quality and Configuration Management contractual standards.
- Professional standards by upskilling and licensing quality practitioners in the Ministry of Defence.
- Protecting UK Ministry of Defence Quality and Configuration Management interests in national and international committees.
- Raising awareness and setting the policy for the identification and control of counterfeit avoidance within the UK Defence Industry.

## *MOD Engagements*

The MOD undertakes external engagement with other Quality organisations and influences the development of standards with ISO and NATO. The MOD engages with the UK's



Accreditation

Service (UKAS) to influence third party certification including the formal consultation link with industry, the Defence Industries Quality Forum (DIQF).

The Senior Stakeholder Forum (SSF) and the Quality Assurance Consultation Group (QACG) are the senior MOD internal consultative mechanisms aimed at identifying and sharing information on quality principles, good practice, issues, and risks. It enables the DAT&QA to consult internally, and to develop and deliver effective Policies, Standards and Processes focused on achieving capability at the required quality, on time, and at the best value for money across the MOD community. Together with the DIQF, the QACG monitors the implementation of MOD Quality Policies, Standards and Processes.

*You can find out more in Managing Quality Section on the KiD.*

### **6.3 National Quality Assurance Authority**

The UK National Quality Assurance Authority (NQAA) is a position established within the MOD to meet UK commitment to NATO under STANAG 4107 Mutual Acceptance of Government Quality Assurance and usage of the AQAP.

The NQAA has two major roles:

- Ensure the UK MOD meets its responsibilities in accordance with NATO agreement STANAG 4107.
- Represent UK MOD interests for Quality within NATO.

The DAT&QA is delegated to be UK NQAA; operating under a letter of delegation from the MOD PS through the UK NATO Conference of National Armament Directors (CNAD) representative.

## 6.4 Defence Quality Assurance Field Force (DQAFF)

DQAFF has been established by the UK NQAA to fulfil the UK obligations under STANAG 4107 for the provision of NATO nation GQA and agreements established through intergovernmental Memorandum of Understanding. (See useful websites for more information on DQAFF.)

## 7 CHECK LISTS

### 7.1 Delivery Team Leaders' Check List

- Ensure compliance with JSP 940 Part 1: Directive.
- Ensure that JSP 940 Part 2: Guidance, and guidance published on the KiD, are complied with.
- Delegate authority for quality issues to a competent GQA Practitioner (GQAP).
- Ensure the team has the necessary resources and competences to address the application of, and compliance with, acquisition Quality requirements.
- Ensure compliance to their organisation's QMS.
- Ensure a Quality Strategy is defined for the portfolio or projects



for which they are accountable.

- Ensure the generation and implementation of quality planning, at appropriate levels, is conducted by a competent GQAP.
- Ensure that there are appropriate forums in place within the formal acquisition reporting structure to address acquisition quality and quality assurance activities. For example, the formation of Quality Assurance Groups (QAGs).
- Comply with the DAT&QA policies for the conduct of Quality Assurance Surveillance and the use of GQAR by:
  - Within the UK, ensure that only authorised MOD GQARs are tasked to carry out GQAS in order to assist in the mitigation of risk.
  - Outside the UK, ensure that the correct procedures are used to request GQA to assist with risk mitigation.
- Ensure that any proposed suppliers' QMS Certification meets the Appropriate Certification policy, and that appropriate Quality Assurance Standards and Requirements are included in contracts.
- Exceptionally approve use of suppliers with no certificated QMS.
- Ensure contractual requirements are clearly defined, measurable and achievable.
- Define clear product acceptance criteria.
- Ensure that corrective and preventive actions are completed in a timely manner.
- Ensure that unsatisfactory quality trends are monitored, for example, defects, deficiencies, and other feedback.
- Ensure GQAP activities are addressed.
- Ensure that contract related risks are considered during Contract Requisition process.
- Ensure that all quality assurance contractual requirements are endorsed by a LQP or and Authorised Signatory prior to submission.
- Ensure the application of the appropriate protections for the Defence Inventory for Counterfeit Avoidance.
- Apply the principles of PDCA.



## 7.2 Project Government Quality Assurance Practitioner Check List

- Conduct GQA planning, appropriate for the acquisition activities to be conducted, in consultation with the relevant project Subject Matter Experts (SMEs).
- Input to the project risk identification and assessment process, including the identification of risks that can be mitigated by tasking GQAR to conduct GQAS.
- Ensure the appropriate QA Standards and Requirements are included in the contracts.
- Discuss the requirements for Counterfeit Avoidance with the Project Manager and relevant SMEs, and the inclusion of Def Stan 05-135: Avoidance of Counterfeit Materiel in the contract, as necessary.
- Ensure that contract related risks are considered during the Contract Requisition process.
- Review and endorse the quality requirements in the Contract Requisition, for the Request for Quote, prior to submission.
- Accept or reject and manage Deliverable Quality Plans.
- Co-ordinate and monitor all projects related quality assurance activities, including measurement of contract quality performance.
- Ensure adherence to a controlled process to manage supplier concession applications.
- Ensure that corrective and preventive actions are completed in a timely manner.
- When GQAR activities are to be called up in the contract, agree the use of GQAR resources with the GQARs concerned prior to contract let.
- Consult with GQARs to inform on acquisition risks and the need for GQAS.
- Task an authorised MOD GQAR organisation to carry out risk based GQAS.
- Provide GQARs with any necessary documentation.
- Liaise with GQARs to:
  - Assess supplier's capabilities.

- Agree surveillance plans.
- Assess whether GQA at sub-suppliers is required.
- Advise of any risks not to be discussed with suppliers.
- Act upon GQAR reports as necessary.
- Where resolution of quality related contractual issues cannot be agreed, escalation action in accordance with the Partnering Approach for Improving Quality as defined in JSP 940 Part 2 Chapter 4 Section 4.5 should be considered.
- Report on acquisition quality assurance to the appropriate forums.
- Maintain the required level of competence to fulfil the role of a GQAP.
- Apply the principles of PDCA.

### **7.3 Government Quality Assurance Representative Check List**

- Prepare surveillance plans that address the task and perceived risk(s), and then agree the plan with the tasking organisation.
- Discuss risks with suppliers and advise of any sub-delegated surveillance activities at sub-suppliers.
- Delegate surveillance activities to other GQAR organisations as necessary.
- Perform GQAS in accordance with the agreed surveillance plan and raise Observation and/or Quality Deficiency Reports (QDRs) as necessary; discuss findings with the tasking organisation and the supplier as appropriate.
- Copy QDRs to other affected MOD projects (informing the supplier of distribution).
- Monitor suppliers' response to QDR ensuring appropriate containment action is put in place. Provide surveillance reports to the tasking organisations and refer QDRs that indicate problems with the 3<sup>rd</sup> party quality management system certification process to QCM Policy to assist with third party improvement activities.
- Advise tasking organisations of any additional risks identified, and with the agreement of the tasking organisation, amend surveillance plans if necessary.

- Ensure that corrective and preventive actions are completed in a timely manner.
- On request, lead an In-Depth Audit to address significant quality related problems and seek rapid corrective action of the root causes. Unresolved issues to be reported to QCM Policy.
- Maintain records of surveillance activities for 6 years after contract closure unless stipulated otherwise.
- Monitor supplier performance and where appropriate escalate concerns to the authority.
- Apply the Principles of PDCA.

#### 7.4 Delivery Team Members' Check List

- Think quality all of the time.
- Strive for continual improvement of project processes and delivered product and/or service quality.
- Be aware of and comply with the acquisition quality plan.
- Co-operate and engage with those conducting quality assurance related tasks.
- Ensure that quality assurance requirements are addresses in all contracts placed.
- Comply with internal quality requirements.
- Ensure that corrective and preventive actions are completed in a timely manner.
- Apply the principles of PDCA.



## 7.5 Authorised Quality Assurance Signatory Check List

- Review the contract Business Case and draft Statement of Requirement / Statement of Work, inclusive of identified risks.
- Use the Selection Process in JSP 940 Part 2 Chapter 4 Annex B to determine the Standard Quality Assurance Contractual Requirements appropriate for the contract.
- Ensure that the SOR / SOW is updated to include the recommended Standard Quality Assurance Contractual Requirements.
- Conduct a review of the contractual terms and conditions to verify the inclusion of the recommended Standard Quality Assurance Contractual Requirements.

An Authorised Quality Assurance Signatory is an individual who has been deemed competent to select and endorse Standard Quality Assurance Contract Requirements for MOD contracts subject to the relevant delegation of those duties by the Delivery Team Leader or relevant manager.

They are required to meet one of the following criteria:

- Hold a Full MOD Quality Licence for Government Quality Assurance (GQA).
- Hold a Comprehensive MOD Quality Licence.
- To have completed the Contract Quality Requirements (CQR) course; successfully passed the course examination and hold a Letter of Authority issued by the Quality and Configuration Management Policy Licensing Team.

*You can find out more information in Managing Quality, Competence and Development and Licensing Section on the KiD.*

## 8 FUNCTIONAL COMPETENCES

Competence is the level that a Quality Practitioner should be able to demonstrate the application of knowledge and experience, in areas of activity such as QM or GQA.

The competence levels are made up of Core and MOD functional requirements and often take the form of Skills Footprints or Terms of Reference in relation to post and individual performance requirements.



The basis of Skills Footprints, in the MOD, is the “Managing Quality” Functional Competence Framework, which can be found on the defnet People Portal under the Competence Frameworks M-Z and which takes its lead from the competence requirements defined by the professional body for Quality – the Chartered Quality Institute (CQI). The Managing Quality competences are supported by other functional competence frameworks such as Configuration Management (CM) and Risk Management and are underpinned by the Civil Service Core Competent Framework.

### 8.1 Personnel Development

Training and development opportunities are available to help Quality Practitioners attain and improve MOD Quality competencies and professionalism. They are provided in various forms:

- Internal MOD (In-house) Training – The MOD Quality Development Scheme and mainly generic QM and CM related courses provided by the Defence Academy Business Skills College are free of charge for MOD personnel. Details of courses available are shown on the KiD.

- External Training – this is training provided by external suppliers and usually comes at a financial cost. As such attendance at these courses will need to be agreed beforehand with line management. More details are shown on the KiD.
- Mentoring – the MOD operates a Quality Practitioner Mentoring Scheme which utilises a network of trained mentors within the Quality Function. This type of development normally utilises on-the-job training and support. More details are shown on the KiD.

## **8.2 The MOD Quality Practitioner Licensing Scheme**

The MOD Quality Practitioner Licensing Scheme is the official route for assessment of competence and forms a major part of the Upskilling programme for Quality Practitioners throughout the MOD. Its intention is to enhance the professionalism of each of the two functions of GQA and QM by linking competencies to the CQI.

For those that neither need and/or have the skills for GQA licensing there is an Authorised Quality Signatory status that can be applied for separately.

## **8.3 Licenced Quality Practitioner**

A Licenced Quality Practitioner holds one of the three types of licence gained through the MOD Quality Practitioner Licensing Scheme:

- Government Quality Assurance (GQA).
- Quality Management (QM).
- Comprehensive (GQA and QM combined).

*You can find out more in Managing Quality, Competence and Development, Licensing Section on the KiD.*

## 9 USEFUL WEBSITES

* British Standards:	<a href="http://www.bsigroup.com/en-GB/standards/">www.bsigroup.com/en-GB/standards/</a>
Chartered Quality Institute :	<a href="http://www.quality.org">www.quality.org</a>
Commercial Managers Toolkit:	<a href="#">Commercial Managers Toolkit on the KiD</a>
Configuration Management:	<a href="#">Configuration Management on the KiD</a>
Defence Academy:	<a href="http://www.da.mod.uk">www.da.mod.uk</a>
European Co-operation For Accreditation:	<a href="http://www.european-accreditation.org/publications">www.european-accreditation.org/publications</a>
International organisation for Standardization:	<a href="http://www.iso.org">www.iso.org</a>
ISO TC/176/SC2 Home Page:	<a href="http://isotc.iso.org/livelink/livelink/open/tc176SC2public">isotc.iso.org/livelink/livelink/open/tc176SC2public</a>
* Military Specs and Standards:	<a href="http://www.ihserc.com">www.ihserc.com</a>
NATO Standards:	<a href="http://nso.nato.int/nso/nsdd/listpromulg.html">nso.nato.int/nso/nsdd/listpromulg.html</a>
* QA Register:	<a href="#">United Kingdom Register of Quality Assessed Companies</a>
UK Defence Standardization (Dstan):	<a href="http://www.dstan.mod.uk">www.dstan.mod.uk</a>
United Kingdom Accreditation Service:	<a href="http://www.ukas.com">www.ukas.com</a>
UK Defence Quality and Configuration Management Policy	<a href="https://www.gov.uk/government/groups/uk-defence-and-quality-configuration-management-policy-qcm-pol">https://www.gov.uk/government/groups/uk-defence-and-quality-configuration-management-policy-qcm-pol</a>

\* *Subscription only website*

Knowledge in Defence (KiD)	<a href="http://aof.uwh.diif.r.mil.uk/aofcontent/tactical/quality/content/whatsnew.htm">http://aof.uwh.diif.r.mil.uk/aofcontent/tactical/quality/content/whatsnew.htm</a>
Joint Service Publication (JSP) 940 MOD Policy for Quality:	<a href="https://www.gov.uk/government/groups/uk-defence-and-quality-configuration-management-policy-qcm-pol">https://www.gov.uk/government/groups/uk-defence-and-quality-configuration-management-policy-qcm-pol</a>
Quality and Configuration Management Policy (QCM Policy):	<a href="https://modgovuk.sharepoint.com/sites/defnet/DES/Pages/MOD-Quality-and-Configuration-Management-Policy.aspx">https://modgovuk.sharepoint.com/sites/defnet/DES/Pages/MOD-Quality-and-Configuration-Management-Policy.aspx</a>
Contact the Defence Quality Assurance Field Force (DQAFF):	<a href="https://modgovuk.sharepoint.com/teams/2228/pages/Information%20Page.aspx?title=Quality&amp;itempath=https://modgovuk.sharepoint.com/teams/2228/Domains/air&amp;author=Greenwood,%20David%20B%20(DES%20T ECH-QSEP%20QA-FF-DepHd)&amp;cat=Safety%20and%20Environment%20Quality%20and%20Technology&amp;cat1=Advice%20Guidance%20and%20Training">https://modgovuk.sharepoint.com/teams/2228/pages/Information%20Page.aspx?title=Quality&amp;itempath=https://modgovuk.sharepoint.com/teams/2228/Domains/air&amp;author=Greenwood,%20David%20B%20(DES%20T ECH-QSEP%20QA-FF-DepHd)&amp;cat=Safety%20and%20Environment%20Quality%20and%20Technology&amp;cat1=Advice%20Guidance%20and%20Training</a>
Strategic Supplier Management (SSM):	<a href="https://modgovuk.sharepoint.com/sites/defnet/HOCS/Pages/Strategic-Supplier-Management-Homepage.aspx">https://modgovuk.sharepoint.com/sites/defnet/HOCS/Pages/Strategic-Supplier-Management-Homepage.aspx</a>
Upskilling for Quality and Configuration Management (QCM):	See QCM Policy
UK Defence Standardization (Dstan):	<a href="dstan.uwh.diif.r.mil.uk">dstan.uwh.diif.r.mil.uk</a>



## 10 ABBREVIATIONS

ACMP	Anti-Counterfeiting Management Plan
AQAP	Allied Quality Assurance Publication
BS	British Standard
CAMM	Counterfeit Avoidance Maturity Model
CAWG	Counterfeit Avoidance Working Group
CoC	Certificate of Conformity
COTS	Commercial Off The Shelf
CM	Configuration Management
CNAD	Conference of National Armament Directors
CQI	Chartered Quality Institute
CQR	Contract Quality Requirements
CR	Contract Requisition
CWP	Contractor Working Parties
DAT&QA	Defence Authority for Technical and Quality Assurance
DEFCON	Defence Condition
Def Stan	Defence Standard
DIQF	Defence Industries Quality Forum
DMAIC	Define, Measure, Analyse, Improve, Control process.
DMADV	Define, Measure, Analyse, Design Verify process.
DQAFF	Defence Quality Assurance Field Force
DRIVE	Define Review Identify Verify Execute
GAI	Governance Assurance Improvement
GQA	Government Quality Assurance
GQAP	Government Quality Assurance Practitioner
GQAR	Government Quality Assurance Representative
GQAS	Government Quality Assurance Surveillance
IA	Implementing Arrangement
IAF	International Accreditation Forum
ISO	International Standards Organisation
JSP	Joint Service Publication
KiD	Knowledge in Defence

MOD	Ministry of Defence
MoU	Memorandum of Understanding
NATO	North Atlantic Treaty Organisation
NQAA	National Quality Assurance Authorities
PCAE	Pre-Contract Award Evaluation
PDCA	Plan Do Check Act
PfP	Partners for Peace
Pt	Part
QA	Quality Assurance
QACG	Quality Assurance Consultation Group
QAG	Quality Assurance Group
QCM Policy	Quality and Configuration Management Policy
QDR	Quality Deficiency Report
QM	Quality Management
QMS	Quality Management System
QMP	Quality Management Principle
QPI	Quality Performance Indicator
SME	Subject Matter Experts
SoR	Statement of Requirements
SquaRE	Software Product Quality Requirements and Evaluation
SSF	Senior Stakeholders Forum
STANAG	Standardisation Agreement (NATO)
STANREC	Standardisation Recommendation (NATO)
TA	Tender Assessment
UKAS	United Kingdom's Accreditation Service

# Notes



# Ministry of Defence

## **Need help or advice?**

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Email: [DES-QCM-Policy-Helpline@mod.gov.uk](mailto:DES-QCM-Policy-Helpline@mod.gov.uk)

**Do you have some feedback or a suggestion, alternatively would you like to be added to the Quality and Configuration Management Policy stakeholders list?**

Please contact the Quality and Configuration Management Policy team.

**For more detailed information please see:**

Knowledge in Defence (KiD) website and JSP 940 MOD Quality Policy.

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