

Cobham Technical Services

Cleeve Road, Leatherhead
Surrey, KT22 7SA
England

T: +44 (0) 1372 367000
F: +44 (0) 1372 367099

**COBHAM CTS LTD
QUALITY MANUAL
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If you have any questions or comments on this Quality Manual or would like more information about Quality Assurance at Cobham CTS, please email us at cts.qa@cobham.com.

Introduction

In March 2011 ERA Technology Ltd adopted the legal name "Cobham CTS Ltd".

This manual describes Cobham CTS's Quality Management System and is specifically provided for use by the Company's employees. However, it is freely available to all our Customers, Partners, Suppliers and Subcontractors to give them an understanding of Cobham CTS and the way it operates.

The objective of this manual is to provide a user-friendly entry to the Cobham CTS Quality Management System to help understand it and the way we run the Company and to help new and existing staff find and use the various parts of the Quality Management System they need.

Objectives of the Quality Management System

To help the company improve its profits by

- Identifying, developing and implementing efficient management systems, geared to the individual Business Unit or activity wherever practical.
- Reducing waste to 'acceptable' levels.
- Ensuring effective team working.
- Regular audit and review of the Quality Management System to identify excellence, problems and areas of improvement.

To promote customer loyalty and recommendation by

- Ensuring Customers' needs are identified and understood.
- Ensuring project requirements are identified, understood, agreed by all and documented.
- Provide a management system that ensures on-time delivery of the agreed product or service.
- Provide brief, user friendly and easily accessible methods to express satisfaction or dissatisfaction and ensure that any dissatisfaction is resolved (to the extent that this is possible) and opportunities to improve are implemented.

- Meeting the statutory and regulatory requirements of the United Kingdom and other countries within which we operate.

To provide a good working environment and culture for staff by

- Promoting a culture of honesty, good timely communication and assistance to each other.
- Providing brief, user friendly and easily accessible procedures and processes that reflect the users' preferred method of working wherever practicable.
- Ensuring that recognition is given to deserving staff.

Organisation

Cobham CTS is organised into several Business Units that cover different technologies or market sectors, supported by Central Services.

The General Manager, supported by a Senior Management Team comprising the heads of some of the Business Units and Central Services, runs the Company on a day-to-day basis.

Refer to the Senior Management Team Organisation Chart and the Cobham CTS Organisation Chart at the end of this manual.

For organisational details of each Business Unit or Central Service, refer to the charts available in the respective area.

Quality Policy

Cobham CTS's quality policy is based on our core principle to deliver outstanding results for our customers. We aim to achieve this by understanding and delivering what customers really need at a price that represents value for money.

We work on projects with a good profit level to assure a long-term relationship with our customers and partners. We continue to look for new and improved ways to do things.

We approach all relationships with a win-win attitude and we believe that mutually open, honest and timely communications build trust, which is essential for a long-term relationship.

Quality Management System

What is it?

The international definition of a Quality Management System, contained in ISO 9000: 2005, is "co-ordinated activities to direct and control an organisation with regard to the degree to which a set of inherent characteristics fulfils the requirements".

The Quality Management System is the logical and organised combination of everything (procedures, processes, policies) we all do every day to fulfil our Quality Policy which meets our business and our customers' needs. No person or business process is excluded.

An alternative title could be Business Management System but currently convention demands the word Quality.

Why have it?

The Quality Management System provides detailed instructions of how the whole Company operates, on a daily basis, to meet our business and our customers' needs. Without an organised method of conducting business the Company would quickly dissolve into isolated uncoordinated activities. For example, decisions could not be made through inadequate information, customers' needs would not be met through lack of understanding or control of the requirements and profits would not be achieved through dissatisfied customers and waste. Also, as a key part of the Quality Management System is monitoring its effectiveness and suitability, without a system we would not even understand why we were failing.

Why document it?

Cobham CTS is a medium sized organisation - about 150 employees. Every year we employ new members of staff. We are also a technically and operationally diverse organisation with many centralised services. Documentation is necessary to explain how we operate and deliver accrued knowledge to this number of people, especially new staff, and provide a one-stop shop to find out how to do it.

How does it relate/interrelate with our business?

The Quality Management System is specifically tailored and maintained to meet our current business needs and culture. We have particular requirements like business growth within defined technologies and sectors, profit, customer satisfaction and regulatory requirements. Our customers have specific needs defined on a project by project basis as well as expectations like excellence, service and integrity. Our System also includes accrued business and technology knowledge.

A system lifted from another organisation would not achieve this!

The Quality Management System is not a bolt on extra to another business system - something off to one side that we do or somebody else does to satisfy a "Quality Assurance" requirement. We must all operate the Quality Management System because it IS the entire way that the Company operates.

THERE ARE NO OTHER WAYS!

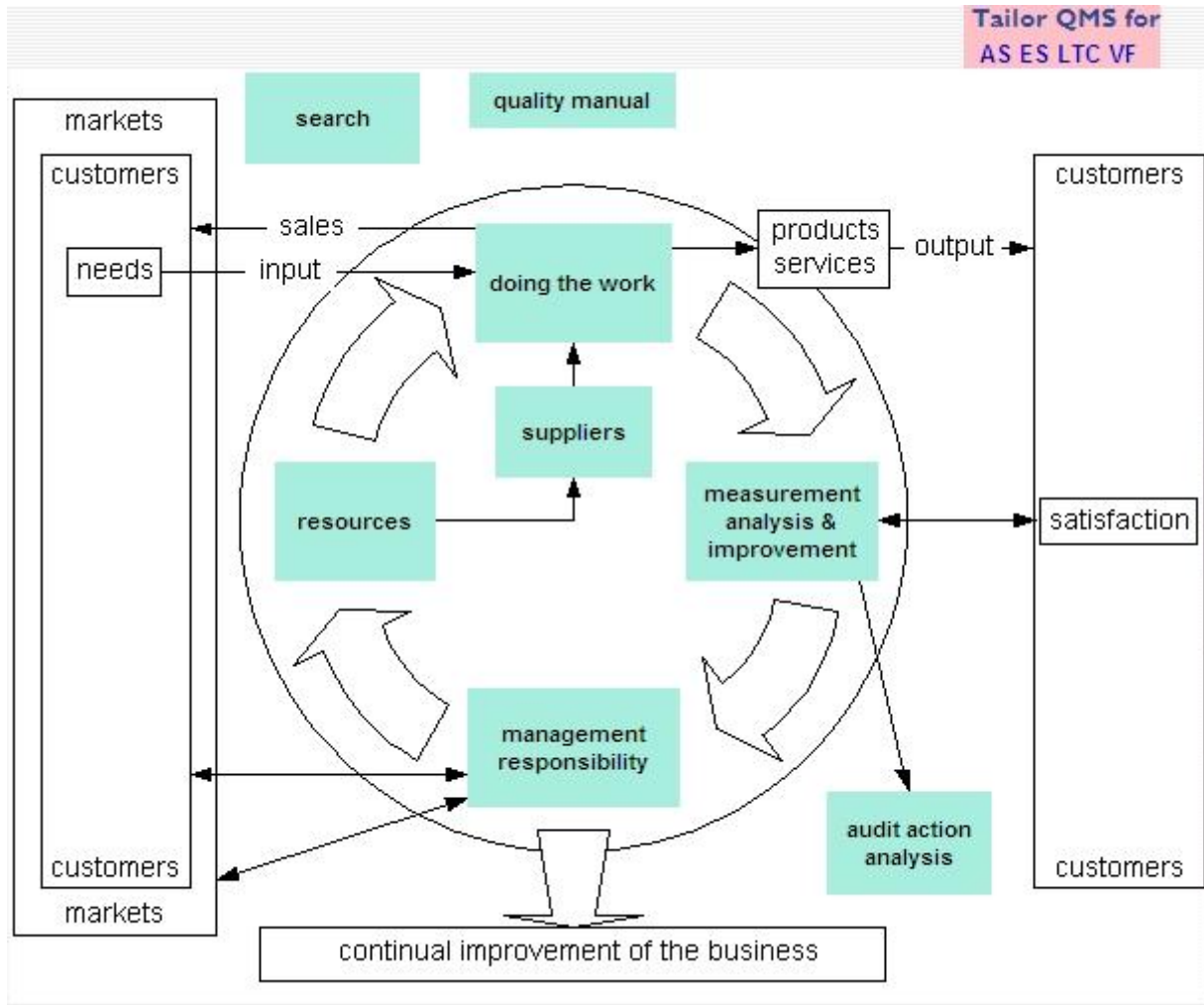
How is it organised?

The Quality Management System is organised around key issues that describe the top-level activities of the Company. This is broken down into key processes like Commercial, Project Management, Human Resources, Design and Manufacturing. Other processes, procedures, policies and guidance support these key processes.

This is the Corporate Quality Management System applied to the whole Company. However, as Cobham CTS is a technically and operationally diverse organisation, what suits one Business Unit may not suit all. As a result there are many "Local" documents, maintained by the respective Business Unit that either override or enhance specific parts of the corporate system.

The following chart shows the Quality Management System organisation

Quality Management System Organisation



How do I use it?

Access the Quality Management System via this [link](#) (save it in your 'favorites'). The diagram above will be revealed as the electronic gateway into the Quality Management System. Alternatively you can access it either via the Cobham CTS Intranet front page under Quality Management System or your Business Unit's pages. Click your Business Unit's name in the top right corner (pink field) to access the Quality Management System tailored to your Business Unit or click CTS to reveal the Quality Management System for all of the Company.

Identify the area of interest in the diagram (green fields) and move your 'mouse' inside the box. A menu of documents and/or sub-menus will be revealed. (Sub-menus are indicated by two right arrows.) Move the 'mouse' to the topic of interest until you reach the document you require and click to reveal the document. If the menu extends below the bottom of the screen, use a 'wheel mouse' or the arrow keys to scroll down. Embedded in all documents are links (blue text) to other related documents and electronic forms.

Key processes in a menu, identified in capitals, are a particularly useful navigation tool to help find the instructions you need. For example our Project Management System document [Q2000/99](#) gives a précis of the whole process and contains links to detailed procedures and forms.

Many documents will contain flow diagrams as labelled fields (using standard symbols) interlinked with arrows showing flow, with occasional notes. If a field has a blue border this denotes either a link to explanatory text or to another document.

A search facility is also available.

If you have a problem locating the instructions you need ask your supervisor, Quality Assurance Representative or contact the Quality Assurance Department, Peter Davis Ex 7056 or Paul Schindler Ex 7388 directly.

What if I don't understand it or think it's wrong or it could be better?

Look at the end of the document for the Process Owner. This will be a named individual. Contact them. If you still have a problem contact the Quality Assurance Department, see above.

Where does ISO9001 Certification fit in to all this?

ISO 9001 is the International Standard that defines the framework of a Quality Management System for organisations wishing to:

- Improve their Quality Management System to the benefit of their business and their customers.
- Demonstrate that they are able to provide products/services that meet their customers' needs.
- Meet applicable statutory and regulatory requirements.

Within this framework, Cobham CTS is free to determine how its Quality Management System is developed and organised to ensure that it complies with this standard.

Cobham CTS is certified as complying with ISO9001: 2008 by the British Standards Institution.

Clauses 7.5.2 of ISO9001: 2008 is excluded as we do not have any processes where we cannot verify the output.

Having ISO 9001 Certification is a contractual requirement placed on us by virtually all our Customers.

Ownership of the Quality Management System

To improve understanding and use of our Quality Management System individuals are appointed as 'process owners'. The owner's name is provided at the end of the respective procedure/process.

The individual owner is chosen from our staff as someone who is highly regarded and either regularly implements the procedure/process or is responsible for its implementation.

The owner's responsibilities are as follows:

| Responsibility | Guidance |
|--|--|
| Either part of the team that defines it or given an opportunity to review it, before consenting to be the owner. | This assumes a team is involved. However, occasionally an individual who will be the owner will personally define procedures/processes. For existing procedures/processes the individual will be asked to review it before becoming the owner. |
| Launching it and any amendments. | Advising all staff of its existence (including all changes), defining the circumstances when it must be implemented and the individuals responsible for its implementation. |
| Providing mentoring and guidance. | Answering questions or providing guidance on the procedure/process to Cobham CTS staff. |
| Maintaining it up-to-date with business and customers' needs, including a formal review, with all areas that implement it, at least every two years. | As our business evolves, our customers' needs and expectations change, technology advances and improvements are found, the procedure/process must be kept up-to-date. |

Responsibilities

Senior Management Team Responsibilities

- To manage the Company on a day-to-day basis as a team and to individually manage the area of the Company to which they have been assigned.

Quality Manager's Responsibilities

- Maintenance and improvement of the Quality Management System in line with business needs.
- Facilitating process improvement across Cobham CTS.
- Maintenance of all Cobham CTS's Quality Management System approvals.
- Acquiring new and relinquishing old Quality Management System approvals as required by our evolving business.
- Monthly reporting to the Senior Management Team on the status of the Quality Management System and any quality problems or related issues.
- Approving and authorising Quality Documentation including Quality Policy, on behalf of the General Manager.
- Liaison with our customers and potential customers on Quality Assurance issues.
- Providing Quality Assurance training.
- LCM (Life Cycle Management) champion.
- Business Continuity champion.
- Supply Chain Manager - reviewing supply needs of key (production) projects to ensure the most cost effective production solution is chosen, dual sourcing of key items and services and current Cobham policy is implemented where appropriate.
- SHE (Safety, Health and Environment) champion - drive SHE implementation and monitor until Cobham plc requirements are met.

Quality Assurance Representative's Responsibilities

Quality Assurance Representatives are responsible to both the Head of Business Unit and the Quality Assurance Manager for Quality Assurance and Control activities within the area to which they have been assigned. Specific Project Quality will be the responsibility of the individual Project Manager where the work is performed, whilst overall Business Unit Quality will be the responsibility of the Head of Business Unit.

Specific responsibilities are:

- Uphold the Quality Management System, Manual and Procedures/Processes, reporting all suggested changes, in writing, to the Quality Assurance Manager.
- Involve the Quality Assurance Manager where a Customer is imposing any unusual, onerous or critical Quality Assurance requirements.
- Carry out Quality Management System audits upon request of the Quality Assurance Manager.
- Provide local knowledge of the Quality Management System and how it relates to the local business, to all staff within their area of responsibility.
- Be aware of quality problems affecting the local business and either resolving them or involving the Quality Assurance Department.
- Make sure that all equipment that needs to be is calibrated.
- Assist in preparing local Quality Control Manuals and Quality Processes/Procedures.
- Provide liaison between their area of responsibility and any internal and external auditors.
- Provide support, upon request, for activities like Order Acceptance Review, Technical Review, Quality Management System Review and Project Wash-up.

Quality Management System Approvals

ISO 9001:2008, including TickIT, by BSI, certificate number FM 01303

Product design services and supply of antennas, RF components, RF sub-systems and complete terminals for telecommunications applications (satellite and terrestrial, on land and in the air).

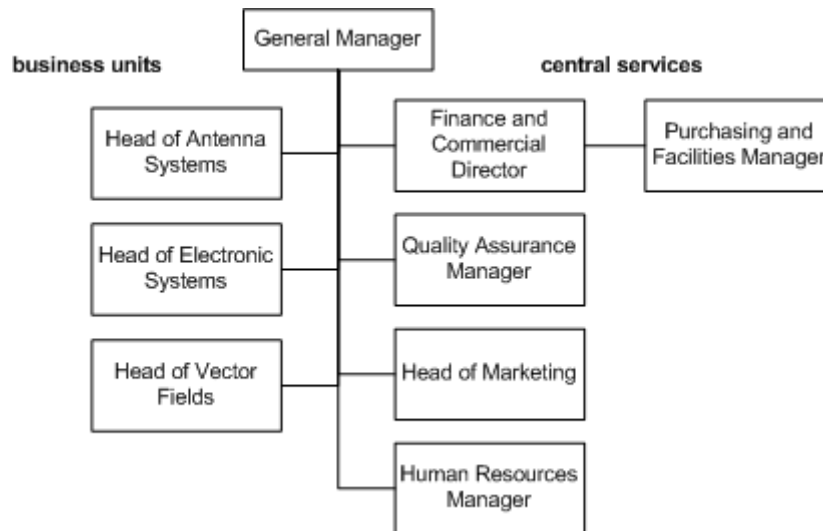
Design consultancy for electronics, sensors and wireless communications and supply of sensor products in niche markets. Key skills in RF, digital hardware and embedded software.

Proven project delivery capability in both defence and commercial sectors on projects from research through to production.

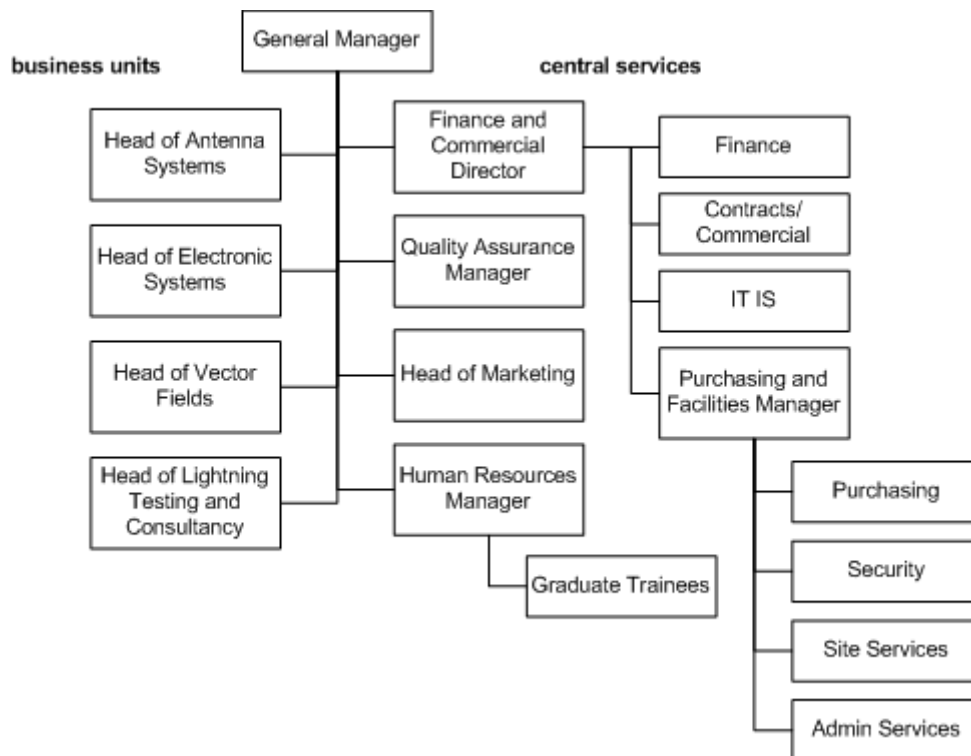
TickIT

Provision of research, development, simulation testing services, consultancy and training related to lightning technology and the protection of aircraft, ground based structures and data networks.

Senior Management Team Organisation Chart



Cobham CTS Organisation Chart



Issue and Change Control

This manual will only be formally issued via the Cobham CTS Intranet and Internet. Only the latest version will be freely available by this method.

Paper copies will not be controlled and therefore may not be up to date.

All changes to this manual will be agreed either by the personnel who approved the original document or equivalent staff currently in post.

Source: Peter Davis

Approved by: Robert Pearson, General Manager
Peter Davis, Quality Assurance Manager

Process Owner: Peter Davis

AMENDMENT SUMMARY

Issue 6: This is a new document. It is a complete rewrite and replaces the previous Quality Manual entirely.

Issue 7: Minor changes to organisation chart ref. AccessERA.

Issue 8 : Revised organisation charts. Clarification to 'How do I use it'. Clarification to QMS objective.

Issue 9: Facility for tailoring the QMS for each BU added. Railtrack Accreditation now Network Rail and extended to 3006.

Issue 10: Minor change to organisation charts ref Procurement and Facilities.

Issue 11: Quality Policy reworded.

Issue 12: Amended to reflect ISO9001:2000 certification and new scope and new EMC Notified Body scope. References to shareholders removed. Marketing removed from the Senior Management team. Safety and Reliability Management changed to EMC and Safety Engineering.

Issue 13: Organisation charts updated. IEE endorsement added.

Issue 14: Reviewed. Added consolidated list of Quality Management System Objectives, changed Client to Customer. Up-dated scope of certification.

Issue 15: Up-dated Senior Management Team Organisation Chart to reflect current organisation.

Issue 16: Reviewed. Up-dated Senior Management Team and Company Organisation Charts to reflect our current organisation. Up-dated the QMS Organisation Chart - deleted how do I and forms functions and added Tailor QMS for specific business unit function. Delete CISCO Systems Accreditation as we have now disposed of this business. Minor corrections to wording for clarification.

Issue 17: ISO 9001 scope updated to delete CISCO activities and add AccessERA. New SMT organisation chart shows Head of Marketing now part of SMT.

Issue 18: SMT Organisation Chart and ERA Organisation Chart up-dated to reflect current organisation. CEO now Vincent Mifsud. Quality Management System Approvals section amended to show Competent Body status now Notified Body under EMC Directive 2004/108/EC.

Issue 19: Reviewed. SMT and ERA Organisation Charts up-dated and text amended to reflect new position of General Manager. Achilles Verify accreditation added. Staff numbers now 230.

Issue 20: BS EN ISO 9001 scope added for Culham Lightning.

Issue 21: ERA Technology Ltd changed to Cobham Technical Services. CPD Certification Service membership added.

Issue 22: BS EN ISO 9001 date changed to 2008. Reference to IET Approval removed, since IET no longer provide this function. GM was Paul McCarter now Robert Pearson. Organisation charts updated to show Antenna Systems and Electronic Systems as separate BUs. Staff numbers now appx 240. Culham Lightning now Lightning Testing and Consultancy.

Issue 23: Updated following the sale of the Engineering Consultancy Group.