

---

# Aspîre Training Services

## Course Catalogue

Aspire offers both scheduled training courses, designed for the individual who requires particular knowledge, and courses developed specifically to a client's needs - delivered at one of our training venues or the Client's site.

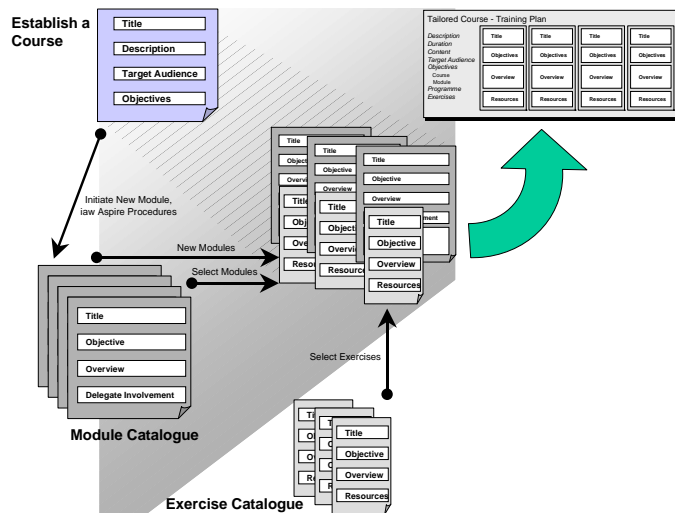
Courses ranging in depth from Introductions through Overviews to Foundation and Management courses; and of duration from a single day to five days are available.

Additionally, a full Training Needs Analysis (TNA) service can be provided for individual organisations, identifying the range and scale of corporate training requirements together with that for individuals within the organisation.

Aspire has a proven reputation for providing training in Supportability Engineering to the UK MoD and to the Defence Industry in the UK and internationally. We also have a growing range of courses relevant to the commercial engineering sector with a growing portfolio of commercial training customers.

Aspire Course Presenters have lectured on Supportability Engineering topics at postgraduate level at several Universities including the Royal Military College of Science, the Warwick Manufacturing Group, Warwick, Exeter, Loughborough and Bristol.

Aspire uses a modular approach to training; this approach, coupled with the Aspire Training Management Database enables efficient and effective tailoring of training courses to meet our customer's specific requirements.



**The Aspire Training programme is subject to continuous expansion and review in order to reflect both customer demand and future developments in the field of Supportability Engineering and related topics.**

**If your organisation has a particular training need, or if you require further information on any of our courses or services, please contact us to discuss your requirements.**

**Aspire Consulting Ltd.  
19-20 Amber Business Village  
Amington  
Tamworth  
Staffs - B77 4RP**

**Tel: +44 (0) 1827 723820  
Fax: +44 (0) 1827 723829  
e-mail [info@aspire.com](mailto:info@aspire.com)**

### **Electronic Publications and ASD S1000D - Overview**

**Duration 1 Day(s)**

---

This course introduces the concept of electronic documentation. The first part of the course explains what the benefits are in having both operational and maintenance information in an electronic format. The benefits that accrue through using electronic documentation are addressed, for example, improvements in training effectiveness, reduced maintenance times etc. as are those benefits that accrue through improved documentation management, i.e. the reductions in the cost of; creating, disseminating, maintaining, configuration controlling and storing of documentation.

The concept of "Mark-up Languages" that is central to the achievement of effective electronic documentation, is introduced and the key methods, HTML, SGML and XML, are covered. The Delegates conduct a range of practical exercises, experimenting with HTML and XML files and Style Sheets, this approach ensures that the delegates have a clear understanding of the underlying principles.

Technical Documentation is then addressed from a programmes viewpoint, in terms of the development process, the programme deliverables, the relationship to the Supportability Engineering programme, and the relationship to the acquisition life cycle.

Following this basic introduction, ASD S1000D and its relationship to the UK Defence Standard 00-60 for ILS is addressed briefly. The concepts of Data Modules and the Common Source Data Base are introduced and the relationship to the Mark-up languages addressed. The major technical elements and the associated terminology are defined in a "popular science" manner that is designed to "de-mystify" what can be an inaccessible topic.

### **An Overview of Availability, Reliability and Maintainability**    Duration 1 Day(s)

---

This course addresses the application of an AR&M programme within the overarching context of a Defence Acquisition programme and hence it focuses on the impact of AR&M on combat capability, safety and Through Life Cost [TLC].

Once the underlying reasons for an AR&M programme have been established the delegate is introduced to the key availability, reliability, maintainability and testability parameters, particular attention is given to ensuring that the delegate understands the true nature of these probabilistic metrics.

The course then addresses the application of the AR&M process throughout the acquisition life cycle, this module introduces the concept of the R&M Case and it is based on the UK MoD's CADMID/T cycle but the principles can readily be applied to all AR&M programmes. During this module the complex interrelationship of the AR&M process with other aspects of Supportability Engineering are introduced, with particular emphasis on the relationships with the LSA process and through life cost. The delegate is given a brief introduction to a wide range of the relevant standards, including UK Defence Standards, US Military Standards plus a selection of civil standards.

### **ASD S2000M - An Introduction**

Duration 1 Day(s)

---

Customer value for money is a major procurement driver in any business and it is generally accepted that the cost of through-life support is often greater than that of the original purchase. As a result, the Customer requires that through-life materiel support considerations are included in the design process and is demonstrated as part of the procurement process.

The aim of this course is to introduce the principles of Initial Provisioning (IP) through the vehicle of ASD Specification 2000M (S2000M) and the attendant processes as described in Defence Standard 00-60 and Integrated Supply Support Procedures (ISSP).

Whether a current Project Manager or a new project engineer or materiel management practitioner, it is the aim of this course to provide delegates with a broad understanding of the practical and economic application of provisioning to S2000M.

Practical sessions are included in the course to reinforce the areas of Provisioning Programme development and Initial Provisioning List (IPL) data compilation.

### **Business With The MoD Demystified**

**Duration 1 Day(s)**

---

A course in Defence Procurement as practiced by the UK Ministry of Defence (MoD) in their continuing efforts to acquire cost effective Defence capability.

This course provides an insight into the concepts and methodologies behind the MoD Acquisition organisation. The course describes the Mod Acquisition organisation as a whole before identifying how organisations become suppliers to the MOD, entering into contracts, Supplier performance/Supplier Relations groups, Electronic Contracting Environment and Export Control. Related initiatives such as Defence Industrial Policy and the Acquisition Change programme are discussed.

A combination of advanced presentation techniques and informal delegate instructor interaction are used to facilitate this workshop based event.

### **Commercial Awareness for Engineers/Project Staff**

**Duration 1 Day(s)**

---

The course is designed principally to provide none commercial delegate (engineers, project and business development staff) with an appreciation of Contract law, Contracting terms (with specific emphasis on contracting with the UK MoD), Protection of information and Selling overseas.

A combination of advanced presentation techniques and informal delegate instructor interaction are used to facilitate this workshop based event.

### **Human Factors - An Introduction**

**Duration 1 Day(s)**

---

This one-day course is designed to impart a basic understanding of Human Factors (HF). By the end of the course, delegates can be expected to understand the core areas of the subject and the improvements good HF practice can make to safety, efficiency and productivity.

The first module defines the discipline, outlines its development and explains the levels at which it can be applied: the operator, the task, the equipment, the environment and the organization. The second module takes a case study approach to high-profile catastrophes and highlights how, if HF had been addressed, they may have been avoided. Having set the scene, the course proceeds to consider the detailed areas of HF: human-computer interaction, task analysis, workstation design, environmental ergonomics and human reliability.

### Introduction to Bidding and Tendering

Duration 1 Day(s)

---

The course is designed principally to provide delegates with practical suggestions on how they and their businesses should approach the bidding process in order to maximize their resource utilization and success rates as well as an appreciation of the Bidding and Tendering process. It is suitable for both Prime contractors and subcontractors covering both commercial bidding and tendering to the MoD.

A combination of advanced presentation techniques and informal delegate instructor interaction are used to facilitate this workshop based event.

### Introduction to Contract Law

Duration 1 Day(s)

---

Entering into a business contract is a complex matter and the consequences of getting it wrong can have a far reaching impact on the viability of any business. We rely on the contract to protect our businesses in the event of something going wrong. The contract must be legally binding and capable of being enforced and should clearly set out the obligations and responsibilities of all parties. It is often used to define and limit commercial risk by attending this one day workshop the delegate will receive a grounding in UK Contract Law where relevant Case Law examples are utilised throughout the workshop to expand upon the taught content. The course details the key legal issues in a business contract and is suitable for both commercial and none commercial employees who are involved in buying goods and require an understanding of UK Contract Law.

### Introduction to Defence Procurement

Duration 1 Day(s)

---

A short introductory course in Defence Procurement as practiced by the UK Ministry of Defence (MoD) in there continuing efforts to acquire defence capability.

This course provides an insight into the concepts and methodologies behind the Defence Procurement Process. A combination of advanced presentation techniques and informal delegate instructor interaction are used.

The course describes the phases of the acquisition cycle and looks at the various plans and policies that have been developed in order to obtain a defence capability that is of high quality, is more integrated with existing systems and strategies, is faster from concept to introduction into service, and is, in terms of cost through the life of the system, cheaper. Related initiatives such as Defence Industrial Policy are also covered.

### **MSG-3 - An Overview**

**Duration 1 Day(s)**

---

MSG-3 is a proven methodology used to determine a maintenance regime that realises the inherent safety and reliability levels of aircraft equipment and systems at a minimum total cost. It uses principles derived from research carried out in the American airline industry in the 1960s that challenges traditional overhaul concepts.

This course is designed to provide the delegate with an introduction to MSG-3 that provides the background information and process knowledge to allow personnel to participate in MSG-3 studies. The fundamental principles are established using a combination of advanced presentation techniques, informal delegate instructor interaction and formal scripted exercises. This course is aimed at the aviation sector.

The course begins by defining MSG-3, its aims and historical origins. The subsequent modules provide the delegate with a basic understanding of the failure characteristics theory required to understand the MSG-3 logic and then overviews the components of the MSG-3 methodology. Separate modules overview MSG-3 specifics such as Structurally Significant Items (SSI), Zonal Maintenance and Lightning / High Intensity Radiated Field (L/HIRF) Analysis. The course concludes with a brief look at MSG-3 Management issues and a summary of the course and conclusion.

### **Introduction to Programme Management**

**Duration 1 Day(s)**

---

A one day introduction to Programme Management.

The course illustrates the importance of conducting a well structured Programme Management activity utilising information from the Association for Project Management and the Office of Government Commerce. A combination of advanced presentation techniques and informal delegate instructor interactions are used throughout the course to facilitate the effective delivery of the training material.

Definitions for the associated terms are discussed before the benefits of good Programme Management activities can be developed. The course progresses by formalising the important factors of a programme's context. The course concludes with a look at the phases of a programmes lifecycle and the planning and control activities applicable to each phase.

### **Introduction to Project Management**

**Duration 1 Day(s)**

---

A short introduction course to Project Management.

This course provides an insight into the concepts and methodologies that are used to address the complexities of planning and undertaking a given task. A combination of advanced presentation techniques and informal delegate instructor interaction are used throughout to facilitate the delivery of training.

A description of the planning and preparation required to successfully complete a project is developed. The course then progresses by describing the processes required to maintain the project impetus and how to plan in contingency using a series of techniques including Risk Management.

### **Root Cause Failure Analysis [RCFA] - An Overview**

**Duration 1 Day(s)**

---

This course is designed to provide the delegate with a thorough overview of the Root Cause Failure Analysis (RCFA) process coupled with a sound knowledge of the underlying principles. The fundamental principles are established and then built upon using a combination of advanced presentation techniques, informal delegate instructor interaction and formal scripted syndicate and individual exercises. The course begins by defining RCFA and then considers generic plant equipment troubleshooting examples.

The subsequent modules cover the analytical tools used by the RCFA Analyst and addresses the requirements of each stage of the RCFA methodology. A short conclusion session rounds off the day and allows the delegates to consolidate their knowledge and allows points of clarification to be addressed.

This course is currently aimed at the Manufacturing / Production Engineering sector but can be tailored to other engineering environments on request.

### **Introduction to RCM in the Defence Sector**

**Duration 1 Day(s)**

---

This course is designed to provide the delegate with an appreciation of the Reliability Centered Maintenance (RCM) process and the underlying principles. The fundamental principles are established and then built upon using a combination of advanced presentation techniques, informal delegate instructor interaction and formal scripted syndicate and individual exercises.

The course begins by overviewing the aims of RCM and its historical origins. The subsequent modules consider the failure process and what can be achieved utilising this knowledge. An examination of the different maintenance solutions available when assessing suitable and applicable Preventive Maintenance tasks and the determination of task frequencies follows.

The course concludes by considering the management aspects of a full RCM programme and a discussion on the various methods by which RCM can be implemented.

### **Introduction to RCM**

**Duration 1 Day(s)**

---

This course is designed to provide the delegate with an appreciation of the Reliability Centered Maintenance (RCM) process and the underlying principles. The fundamental principles are established and then built upon using a combination of advanced presentation techniques, informal delegate instructor interaction and formal scripted syndicate and individual exercises.

The course begins by overviewing the aims of RCM and its historical origins. The subsequent modules consider the failure process and what can be achieved utilising this knowledge. An examination of the different maintenance solutions available when assessing suitable and applicable Preventive Maintenance tasks and the determination of task frequencies follows. In order to present a complete explanation of the RCM process its related topics, for example, Packaging, Age Exploration, General Condition Monitoring and Resource identification are also addressed.

The course concludes by considering the management aspects of a full RCM programme and a discussion on the various methods by which RCM can be implemented.

**Developing a Safety Case - An Introduction****Duration 1 Day(s)**

---

This one-day course is designed to impart a basic understanding of the concepts underlying safety analysis, and of the structure and rationale of the safety documentation required by the Ministry of Defence procurement process. The course describes the methods and procedures for preparing clear, concise and comprehensive documents in accordance with specific standards, notably Defence Standard 00-56 and JSP454.

**Support Solutions Envelope (SSE)****Duration 1 Day(s)**

---

The Support Solutions Envelope (SSE) is the tool used by the UK MoD to manage the coherence of support solutions between projects and compliance with evolving Defence support policy. All projects are required to be assessed against the SSE as part of the UK MoD Investment Appraisal process and industry is increasingly being tasked to produce SSE compliance reports.

The course begins with an overview of the origins of the SSE and the UK MoDs Project Review and Assurance Process in order to understand the SSEs role in the context of overall project governance. The structure of the SSE website and its content are described to familiarise delegates with the SSE and its breadth and depth of content. The course then continues with an examination of the UK MoDs compliance assessment process and an introduction to the Compliance Assessment Matrix before describing an improved work flow and methodology. This will enable better integration of the SSE requirements into the overall Supportability Engineering process. SSE outputs will be linked to tasks, risks, constraints and system requirements in order to shift from being a project overhead to adding value. The material will include an understanding of the relative roles of all stakeholders from the UK MoD and industry communities.

The course concludes with one of two optional elements; a general compliance assessment exercise or a project specific facilitated workshop (company or Project specific courses only).

The course is designed and presented by Vic Steadman, a retired military Officer who, before retirement, led the UK MoDs SSE team for 3 years and was responsible for its development into a project assurance tool and the creation of the Supportability Assurance Group.

### **Introduction to Training Needs Analysis (TNA)**

**Duration 1 Day(s)**

---

This course provides the delegate with an insight into the procedures and products of Training Needs Analysis (TNA).

The course is aimed at all personnel requiring an overview of TNA or being introduced to the subject for the first time. The course is designed to enhance the delegate's awareness of TNA, its relationship to Supportability Engineering tasks, what TNA is and does, and who will be involved in the process.

### **Human Factors Practitioner Course**

**Duration 2 Day(s)**

---

The discipline of Human Factors (HF) is otherwise known as ergonomics, human performance engineering, user-centred design, usability engineering or people-related requirements. This course takes to a higher level some of the themes developed in the basic Human Factors an introduction course, and introduces new concepts in the challenging areas of cognition, task analysis and biomechanics.

On completion of this course, delegates can be expected to be conversant with the core areas of the subject and the improvements good HF practice can make to safety, efficiency and productivity.

### Principles of Supportability Engineering

Duration 2 Day(s)

---

This course gives the delegate a broad understanding of the complex topic of Supportability Engineering (in Defence terminology Integrated Logistic Support) and the associated topics of Logistic Support Analysis [LSA] and Reliability and Maintainability (R&M). The course is aimed at those personnel becoming involved in a Supportability Engineering programme for the first time and Project Managers requiring an overview.

The course is designed to enhance the delegate's awareness of Supportability Engineering (SE), why it is required, what it is, who will be involved, when it should be implemented and how, albeit at a very high level. The problems and potential pitfalls will be discussed as well as the potential benefits.

The course is founded on the basic principles of SE and LSA and is not driven by any existing or planned standards, although these are introduced and their relationship to these basic principles is explored. The course has a pragmatic style; whilst it introduces some new concepts the aim is that the delegates should be able to relate these concepts to existing practices and to apply them in improving those practices.

### Presentational Techniques

Duration 2 Day(s)

---

Students will initially be exposed to both good and bad practice. The course and the instructor will promote good practice. Initially there will be a series of modules where the instructor is primarily delivering material that student will need to know and apply. This will be followed by students making a short 5 minute delivery to their fellow students. A workshop atmosphere will be applied throughout the course. Students will then be tasked to prepare an intermediate piece of work, 15 minutes long, that they will subsequently present to the group. This will be verbally assessed by the instructor and group discussion promoted. Personal feedback will be given privately to every student. Students will then be given time and opportunity to prepare a final piece of work, (20 minutes) to be delivered to the group. Peer group comments will be encouraged and then a general debrief will be delivered by the instructor to the group. A private debrief will be given on an individual basis.

### Terms and Conditions of UK MoD Contracts

Duration 2 Day(s)

---

A two day workshop that details the nuances of MoD contracting Term's & Condition's (T's & C's). Starting at the MoD organisational level the workshop sets the scene by looking at the acquisition process and organisation, detailing the various roles and responsibilities of MoD personnel. The workshop provides an in depth examination of MoD DEFCONS, setting them in the context of the organisation and its structures. The workshop allows the delegate to gain an understanding of the content and purpose of the range of MoD DEFCONS commonly used throughout the acquisition life cycle. This workshop is suitable for personnel who will be required to deal with the MoD within a contractual capacity.

### ASD S2000M for Practitioners

Duration 3 Day(s)

---

Customer value for money is a major procurement driver in any business and it is generally accepted that the cost of through life support is often greater than that of the original purchase. As a result, the Customer requires that through-life materiel support considerations are included in the design process and is demonstrated as part of the procurement process.

The aim of this course is to address Initial Provisioning (IP) through the vehicle of ASD Specification 2000M (S2000M) and the attendant processes as described in Defence Standard 00-60 and Integrated Supply Support Procedures (ISSP).

Whether a current Project Manager or a new project engineer or materiel management practitioner, it is the aim of this course to provide delegates with a detailed understanding of the practical and economic application of provisioning to S2000M.

Extensive exercises are included in the course to reinforce the areas of Provisioning Programme development and Initial Provisioning List (IPL) data compilation.

### **MSG-3 - Foundation**

**Duration 3 Day(s)**

---

This course is designed to provide the delegate with a high level of understanding of the MSG-3 process coupled with a sound knowledge of the underlying principles. The fundamental principles are established and then built upon using a combination of advanced presentation techniques, informal delegate instructor interaction and formal scripted syndicate and individual exercises. This course is aimed at the aviation sector.

The course begins by defining MSG-3, its aims and historical origins. The subsequent modules provide the delegate with an understanding of Reliability and failure characteristics theory required to understand the MSG-3 logic and then addresses the components of the MSG-3 methodology. Separate modules cover MSG-3 specifics such as Structurally Significant Items (SSI), Zonal Maintenance and Lightning / High Intensity Radiated Field (L/HIRF) Analysis. The course concludes with a look at MSG-3 Management issues and a summary of the course and conclusion.

### **Defence Sector RCM Foundation**

**Duration 3 Day(s)**

---

This course is designed to provide the delegate with a high level of understanding of the Reliability Centered Maintenance (RCM) process coupled with a sound knowledge of the underlying principles. The fundamental principles are established and then built upon using a combination of advanced presentation techniques, informal delegate and Course Presenter interaction and formal scripted syndicate and individual exercises.

The course begins by defining the aims of RCM and its historical origins. The subsequent modules address the failure process and what can be achieved utilising this knowledge. An examination of the different maintenance solutions available when assessing suitable and applicable Preventive Maintenance tasks and the determination of task frequencies follows. In order to present a complete explanation of the RCM process its related topics, for example, Packaging, Age Exploration (AE), Zonal Maintenance, the role of RCM with an Integrated Logistic Support (ILS) programme and Resource identification are also addressed.

The course concludes by addressing the management aspects of a full RCM programme and a discussion on the various methods by which RCM can be implemented.

### **RCM Foundation**

**Duration 3 Day(s)**

---

This course is designed to provide the delegate with a high level of understanding of the Reliability Centered Maintenance (RCM) process coupled with a sound knowledge of the underlying principles. The fundamental principles are established and then built upon using a combination of advanced presentation techniques, informal delegate instructor interaction and formal scripted syndicate and individual exercises.

The course begins by defining the aims of RCM and its historical origins. The subsequent modules address the failure process and what can be achieved utilising this knowledge. An examination of the different maintenance solutions available when assessing suitable and applicable Preventive Maintenance tasks and the determination of task frequencies follows. In order to present a complete explanation of the RCM process its related topics, for example, Packaging, Age Exploration, General Condition Monitoring and Resource identification are also addressed.

The course concludes by addressing the management aspects of a RCM programme and a discussion on the various methods by which RCM can be implemented.

### **The Principles of Availability, Reliability and Maintainability**

**Duration 4 Day(s)**

---

The course addresses the general principles behind the concept of an Availability, Reliability and Maintainability (AR&M) Programme and focuses in particular upon the management aspects that need to be addressed, the engineering activities involved and the relationship and utility of commonly used parameters of interest and techniques.

The topic is developed using general principles, although references to appropriate statutory documentation are made to illustrate or reinforce a particular issue. In addition to the general principles, the application of the Reliability concept to both Mechanical and Software components of a System are addressed. This course provides an excellent 'grounding' for all personnel employed on AR&M programmes or activities within projects.

The course will enable the delegate to appreciate the inter-relationships between the various functional disciplines and the contribution of their specific area of expertise to the overall programme. The delegate's organisation will benefit from the delegates raised perception of their role within the overall process and the potential increases in efficiency that this engenders.

**Logistic Support Analysis (LSA)****Duration 5 Day(s)**

---

A practical course which teaches the application and management of Logistic Support Analysis (LSA) within a System Engineering context. After a general introduction to Integrated Logistic Support (ILS) and LSA the course follows the LSA process through the system life cycle. In each phase of the life cycle the relevant theories and concepts are introduced and these are then consolidated by the performance of a series of practical exercises.

The Logistic Support Analysis Record (LSAR) is introduced early in the course and the results of the exercises will, where applicable, be related to the LSAR compilation process. Thus the training in the LSAR is fully integrated into the course and is not presented as a stand-alone topic. The course addresses LSA in accordance with Defence Standard 00-60.

A proprietary software package "EDCAS" is used as a training aid to support some of the practical exercises.

This course is aimed at LSA Practitioners and ILS Managers (ILSMs).

*It is possible to present this course to MIL-STD-1388 given prior notice.*

**LSAR and Logistics Data Management****Duration 5 Day(s)**

---

A practical course that is designed to complement the Aspire Logistic Support Analysis (LSA) course.

The Logistics Data Management course addresses the requirement for, the development of and the use and management of Logistics data in a Systems Engineering context.

As the delegate will have experience or knowledge of the Integrated Logistic Support (ILS) and LSA processes this course leads them through a complete project from start to finish. It takes the delegate from the Integrated Logistic Support Plan (ILSP), Statement of Work (SOW) and Use Study through to determination of resources at each level of repair, including tools, spares, skill sets, training needs and technical documentation.

Logistics Data Management is seen as one of the "Black Arts" of Supportability Engineering that frequently leads to enormous costs and indifferent to poor results. This "Logistics Data Management" course aims to reverse that trend.

The course is founded on an understanding of the relationship between the logistics data and support requirements and specifications, the design, support deliverables and management deliverables, are stressed throughout the course. The purpose of the logistics database is explored and related to the LSA process and the LSA tasks. This leads to a discussion on the range of information and data that would be required at each stage of the System Life Cycle.

The application of these concepts in a contracting environment is addressed; Data Element Definitions (DEDs), Data Item Descriptions (DIDs), Contract Data Requirements List (CDRLs) and Data Selection Sheets [DSS] are introduced. The structure of the LSAR as defined by the "Tables", their content and their relationships is analysed, once again these are related to the LSA and Systems Engineering processes. The database indexing systems, the Logistic Support Analysis Control Number (LCN), Alternative Logistic Control Number (ALC) and Usable On Code (UOC) are explained.

The management of the logistics data begins with tailoring of the project. When to use or not to use a LSAR and how data can be used and not just stored, the use of the Defence Standard 00-60 "LSAR Data Tables to Report Matrix" is explained, as are methods for monitoring the status of the developing data.

### **Training Needs Analysis (TNA) Foundation**

**Duration 5 Day(s)**

---

This course is designed to provide the delegate with a high level of understanding of the Training Needs Analysis (TNA) process coupled with a sound knowledge of the underlying principles. The fundamental principles are established and then built upon using a combination of advanced presentation techniques, informal delegate instructor interaction and formal scripted syndicate and individual exercises. The course begins by defining the aims of TNA. The subsequent modules address the phases of the TNA, the products - "deliverables"- the processes and analysis required to be carried out.

The course can be tailored to meets the needs of the individual customer where the exercises and products can be project specific.