



# Planning and managing the safety lifecycle for Defence Standard 00-56 Issue 4

11th-13th May 2010, London

Adelard is pleased to announce this course which presents the requirements of Defence Standard 00-56 issue 4.

Part 1 (days 1 and 2) will provide attendees with the capability to develop safety processes, identify arguments and generate supporting evidence to comply with the standard.

Part 2 (optional – day 3) will build on the first two days to train a limited number of attendees in hands-on use of Adelard’s Assurance and Safety Case Environment (ASCE) in the construction of DefStan 00-56 compliant safety cases, and the development and presentation of safety case reports. This work will be based on material presented and developed during Part 1.

Part 1 is limited to 16 attendees; Part 2 to 8 attendees.

(Part 1 attendance is a requirement for attendance at Part 2; however Part 1 may be attended on its own)

### Who should attend

- Team leaders, safety managers and others with delegated safety responsibilities using the standard in MoD contracts.
- Contractors/suppliers who have a requirement to deliver or bid against the standard.
- Safety specialists and consultants who plan to develop 00-56 issue 4 compliant safety cases.
- Independent Safety Assessors who plan to assess a product or project against the standard.

### Prerequisites

- General safety familiarity.
- Previous safety case development or assessment experience is desirable.
- Part 2 requires some basic familiarity with the ASCE tool – an evaluation version and hardcopy tutorial material will be provided in advance to those who have not used it before.

### Learning outcomes

- Familiarity with good practice in safety case structure, organisation and lifecycle.
- Awareness of regulatory requirements for safety cases and safety management.
- Awareness of requirements of 00-56 including guidance on software.
- Practical experience of safety case construction and techniques for developing supporting evidence.

“Good course, well run, I liked the flexible approach”

### Course tutors

These will include Dr Tim Clement, Dr Fan Ye, Mr Luke Emmet, and Dr George Cleland. The tutors have a wide-ranging background including systems and safety analysis, safety case development and assessment, standards development and interpretation, and human factors.

### Costs

Part 1: £850  
Parts 1 and 2: £1,350

This includes all course notes, refreshments, and a course dinner on the evening of the first day.

Prices exclude VAT.

### Location

Part 1 will take place in The Old Sessions House, Clerkenwell Green, London (Tube: Farringdon).

Part 2 will take place at Adelard’s premises on St John’s Street, London (Tube: Farringdon, Angel, Barbican). See address below.

### To register

Complete the form overleaf supplying either credit card details or a company purchase order, and post it the address shown in the page footer.

Alternatively call +44 20 7490 9450 with a PO number/credit card details. Places will be allocated on a first-come-first-served basis.

“My knowledge [of] ALARP has increased dramatically”

## Part 1

### Session 1: Introduction to the Def Stan 00-56 Issue 4

- Overview: the requirements of the standard and supporting guidance.
- The safety lifecycle and process model.
- Relationship to the MoD CADMID project lifecycle.
- Roles, stakeholders and responsibilities: the legislative framework.
- Putting the safety case at centre stage.
- Implications for safety project planning and management.
- Working with stakeholders.
- Customers, ISA, safety offices, regulators.

### Session 2: Establishing the safety case – determining system safety requirements

- Collaborative analysis of the system in its operating context.
- Starting the risk management process.
- Preliminary hazard analysis, risk analysis and risk assessment.
- Determining tolerable levels of risk.
- Identifying system and equipment safety requirements.
- Demonstrating effective hazard analysis and safety management.
- The role of the hazard log.

### Session 3: Developing the safety case – demonstrating equipment safety

- Development process model and activities.
- Propagating safety requirements through the design.
- Management of derived safety requirements.
- The treatment of systematic failure.
- New approach to safety integrity requirements.
- Safety arguments.
- Sources of evidence and argument strategies.
- Demonstrating that risks are ALARP.
- Gaining confidence in evidence.
- Justifying hazard management via the hazard log.
- Approaches to software and programmable systems.
- Managing legacy systems, off-the-shelf systems and COTS systems integration.

- Integration with sub-system and super-system safety cases.

### Session 4: Establishing system safety into service and in service – the safety case in operation

- Procedures and training as contributions to safety.
- Management of operational limitations.
- Operational validation of safety case assumptions.
- Maintaining safety in a changing environment.
- Safety at the end of service life.

### Session 5: Conclusions

- Overall themes.
- Safety case reports – ensuring adequate and appropriate reports for relevant stakeholders.
- Wrap up – open technical discussion.

## Part 2

### Session 1: Building safety case arguments within a managed safety lifecycle

- Assembling safety argument components.
- Use of ASCE in the development of structured safety cases using graphical argumentation.
- Overview of Goal Structuring Notation and Claims-Argument-Evidence.
- Linking to safety case evidence and integrating with other tools.
- Safety document hierarchies and dependencies.
- Supporting safety lifecycle activities.
- Mapping Part 1 results to overall safety case lifecycle.
- Shaping the safety case through the project lifecycle – use of models and templates.
- Supporting safety lifecycle review and assurance activities.
- Approaches to generating safety case reports.

### Session 2: Safety case development workshop

- Tricks of the trade – planning tactics to make life simpler across the lifecycle.
- Traceability and versioning across evolving heterogeneous safety documentation.
- Group exercise.
- Discussion of results.



**Please reserve a place for me at this course**

I would like to attend: (delete as required)

Part 1 only (11th-12th May 2010) / Parts 1 & 2 (11th-13th May 2010)

Name .....

Organisation .....

Address .....

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Email .....

I enclose a company PO/cheque for £998.75 (£850 + VAT) / £1,586.25 (£1,350 + VAT)\*

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