



Maritime Multi Link

Statement Of Work for the provision Of Maritime Multi-Link (MML) Phase 2 Training Needs Analysis (Tna) Technical Assistance

ANNEX A TO FTS/DE TASKING ORDER FORM

FTS/DE/SACC/16

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**Ministry
of Defence**

STATEMENT OF WORK - A TRAINING NEEDS ANALYSIS TO BE CONDUCTED TO DETERMINE THE TRAINING NEEDS ASSOCIATED WITH THE MARITIME MULTI LINK (MML) PROJECT.

Background

1. The Maritime Multi-Link (MML) programme aims to replace the existing Beyond Line of Site (BloS) Link 11 system with Link 22. Link 22 has been developed within NATO since the late 1980s and can be referred to as the NATO Improved Link Eleven (NILE) system. It will interconnect air, surface, sub surface and ground based tactical data systems, so that Units can share their tactical pictures in Near Real Time^[1] (NRT) and at distances BLoS. The long-term aim is to achieve a pan-fleet Link 22 capability installed on multiple platforms.
2. Alongside the introduction of Link 22, the MML capability includes the upgrade of legacy Link 11, Link 16 and the UK Satellite Tactical Data Link (UK STDL) capability. Link 16 is a tactical data link primarily concerned with Anti-Air Warfare (AAW) and as such provides complementary functionality to Link 22, which is principally focused on maritime data exchange; under the MML programme L16 will be upgraded to the NATO standards current at time of design and manufacture contract award. UK STDL provides an extended range for data links using a satellite bearer and under the MML programme will be upgraded to achieve interoperability with NATO and Coalition forces.
3. The MML programme will deliver interoperability between UK / US / NATO and coalition partner maritime platforms. This capability implementation shall be captured through the MML programme via DE&S Situational Awareness Command and Control Delivery Team (SACC DT).

Requirement

4. This Statement of Requirement (SoR) outlines the requirement to conduct targeted elements of Training Needs Analysis (TNA) to support the development of steady state training for The MML operators and maintainers that will allow personnel to Operate, Maintain, Diagnose and Repair (OMDR). It also provides direction on how the TNA should be carried out, and provides details of some of the key issues and considerations that must be made in its conduct. The TNA will inform the transition timescales from interim OEM training to steady state training to be delivered for MML. It is assumed that MML training will be delivered at HMS COLLINGWOOD in Portsmouth.
5. The Programme has 7 x key elements which must be considered within the Training Needs Analysis:
 - a. Integrated Link 16 in Type 23 and LPD Platforms – Full integration of the MML solution into 9 x Type 23 and 1 x LPD.
 - b. Link 11 Software development – Upgrade Link 11 from baseline Edition 3 to elements of Edition 9 to enable Data Forwarding operations with Link 16 and Link 22. Continued operation of Link 11 until Out Of Service (OSD); currently predicted to be 2025.

^[1] There is currently no agreed UK Joint definition of real-time. This document uses the term real-time to indicate the exchange of data or commands in such a short timescale as to permit the second-to-second tactical control of FEs. The characteristics and varying operational functionality of different Data Links do not easily permit the imposition of a specific temporal threshold for the delineation of the terms 'real-time', 'near real-time' or 'non real-time'.

- c. Link 16 Software Development – Upgrade from current baseline Edition 4 plus Data Link Change Proposals to Edition 7 plus DLCPs.
- d. Link 22 – Introduction of Link 22 software and hardware into all designated platforms.
- e. Satellite Tactical Data Link (Enhanced) – Upgrading the current UK STDL capability to the Joint Range Extension (C) (JRE(C)); the international standard for Satellite Beyond Line of Site (BLoS) data IAW STANAG 5518 Edition 3[2].
- f. MML ‘in-scope’ platforms to be fitted with a common Data Link processor; Cayman DLP.
- g. Update RN shore training facility to support both Career and Fleet Continuation training (FCT)¹.

6. The supplier shall provide a TNA completed to the standards prescribed in JSP 822 Part 2 (V2.0 Mar 16) pages 13-61 (specifically including the mandated elements set out below and in the annexes), endorsed by the MML Training Needs Analysis Steering Group (TNASG) comprising key stakeholders. While the TNA will require sub-division into the programmes’ component parts, it will also need to consider ‘System of Systems’ implications and any other interdependencies between sub-systems. Details of the requirement in full can be found at Annex A.

Travel

7. There may be a requirement for travel to stakeholder locations which include, but are not limited to; HMS Collingwood (Fareham), Portsmouth Technology Park (PTP), Navy Command Headquarters (NCHQ) (Portsmouth), MOD Abbey Wood (Bristol) and the OEM premises. Stakeholder contact details will be provided in the initial kick-off meeting but the tender should account for all travel costs associated with all reasonable stakeholder engagements required to carry out the work.

8. Claims for Travel and Subsistence will be in accordance with Schedule 1, Part 5, Paragraph 17 of the FTS Design and Engineering Framework Terms and Conditions.

Security Clearance

9. The conduct of the TNA requires access to material up to OFFICIAL - SENSITIVE. All personnel must have suitable security clearances to access this material.

Government Furnished Information / Equipment

10. The Authority shall provide any relevant training documentation to the supplier at the start of the contract. The supplier may request any additional information.

Governance

11. The Training Steering Group (TSG) will oversee the endorsement of any deliverables and will be the point of contact for the duration of the work, details of its membership can be found in

¹ The reader should note that training would need to ‘scope’ operations and maintenance on SI and non-SI platforms; Type 23 and LPD at SI Version 1(minimum), and Type 45 and QEC – Non SI.

Annex A.

12. The Costed Scoping Exercise Report will be reviewed iaw the endorsement process as detailed in Annex B to this SOW. Payment to the supplier will only be authorised upon endorsement of the report by the TSG.

13. The contract will be managed through an initial start-up meeting, followed by monthly status reports to the PT and bi-monthly progress review meetings held at MOD Abbey Wood. There will be a requirement to have other Progress Review Meetings with the TSG at Collingwood on an as required basis up to 6 meetings.

14. A monthly Work in Progress (WIP) Certificate to be completed on the last working day of every month. Template provided at Annex D to the Tasking Order Form and returned to SACC DT.

Controlled Information

15. All material protectively marked OSC and above, and 3rd party proprietary information supplied to / provided by the Authority should be treated as Controlled Information in accordance with Schedule 1, Part 12, Paragraph 40 of the FTS Design and Engineering Framework Terms and Conditions

Supplier and Suitably Qualified and Experienced Personnel

16. The supplier must be able to provide personnel that meet the following criteria to produce the TNA deliverables:

- a. Must have a thorough understanding of the Defence Systems Approach to Training (DSAT) and demonstrable experience in writing Training Needs Analyses.
- b. Must have a demonstrable track record of consistent on-time delivery of TNA deliverables to high standards.
- c. Should have good naval knowledge, preferably with demonstrable experience of MML systems and equipment. Experience from other sectors aligned with the Royal Navy, such as wider MOD and Defence, will be considered with suitable justification and risk mitigation by the supplier.
- d. Should be prepared to work in an iterative and collaborative manner, accepting and incorporating stakeholder input and feedback.

17. Suitable evidence may consist of relevant TNAs or other training analysis work, CVs and samples of work (or accessible references) where the author is clearly identified. Testimonials, where provided, must have an identifiable source (exact post and/or name and rank). They are only to be included where current contact details can be provided and the individual has given consent to be contacted by the Maritime Training Acquisition Organisation (MTAO) to discuss the reference in context.

18. The supplier must provide details of all previous relevant MOD contracts completed.

Duration

19. The proposed duration for this task is April 2017 – 29th December 2017.

DETAILED REQUIREMENT FOR THE DELIVERY OF A TRAINING NEEDS ANALYSIS FOR MML

Deliverables

1. While the minimum requirements are outlined below, potential TNA suppliers will be assessed based on their proposal to add further value in terms of versatile, cogent and thorough analysis. The Deliverables of the TNA listed below should be produced in accordance with the guidance outlined in JSP 822 Part 2 (V2.0 Mar 16) pages 13-61, as well as any direction given either in this SoR, or in subsequent discussion with the TNASG. Such requirements, updated through discussion or clarification activities, will be finalised prior to contract award. A proposed delivery timeframe, where C= date of contract award, is shown below. There will be flexibility over these dates depending on information available from equipment suppliers and SME availability:

a. **Deliverable 1 by C + 2 weeks: Training Support Plan (TSP):** Conduct a kick-off meeting with elements of TNASG and agree the plan and timelines for delivery to include resource allocation, timelines, as well as identify the methods by which SMEs will be engaged. The TSP will also identify any training policy or funding constraints that may affect the TNA and specify who is responsible for the management of the TNA process and how the outputs will be measured. The TSP will be maintained as current throughout the TNA process.

b. **Deliverable 2 by C+6 Weeks: Scoping Exercise Report:** The deliverable shall acquire as much relevant information as possible about the training need and requirement. All DLoD implications and influences to be considered in subsequent deliverables, notably policy, constraints, commitments, assumptions, target audience, personnel strategies, support-solutions and risks are to be collated. The report should also detail what is appropriate to the training need and importantly, make training solution recommendations. Engagement with nominated DLoD personnel will be necessary throughout this stage, including visits to Portsmouth and Bristol. It is essential that the supplier is clear on the scope of the MML programme. It is also imperative that consideration of the range of Target Audiences as well as the impact of Programme Faraday² is fully demonstrated.

c. **Deliverable 3 by C+3 months: Role Analysis (RA):** A focussed RA, comprising a Role Scalar and Role Performance Statement (RPS) for the MML operators and maintainers. This work will also review existing OPS, ICF, TNAs, and associated studies provided through the MTAO and will consider the implication of Programme Faraday to ensure coherence with CNEO's Engineering Strategy³. The key output will be a RPS for each identified role (split by rank and specialisation where appropriate) with detailed Performance, Conditions and Standards (PCS) and a final training category informed by an auditable Difficulty, Importance and Frequency (DIF) analysis.

d. **Deliverable 4 by C+5 months: Training Gap Analysis (TGA):** A TGA undertaken in the context of existing and any future constraints and all factors identified in deliverables 2 & 3, which should be reviewed before commencement. Identification of the training gap between the requirements of the RPS and any existing Training Objectives (TOs) clearly articulated for each of the MML elements, all broken down into Knowledge, Skills and Attitudes (KSA); an assessment of the ability of any committed or assumed training solutions to satisfy identified training gaps. In instances where residual gaps are identified, this Deliverable shall undertake a high-level assessment of other potential solutions.

² Programme Faraday, as specified at

[http://defenceintranet.diif.r.mil.uk/Organisations/Orgs/Navy/Organisations/Orgs/ACNS\(Spt\)/ACOS_EngSup/Pages/Faraday.aspx](http://defenceintranet.diif.r.mil.uk/Organisations/Orgs/Navy/Organisations/Orgs/ACNS(Spt)/ACOS_EngSup/Pages/Faraday.aspx)

³ Engineering Out Future – Our Strategy for Royal Navy Engineering Final Version 8 – dated January 2014:

<http://defenceintranet.diif.r.mil.uk/libraries/4/Docs2/20140628.11/Naval%20Engineering%20Strategy%20Final%20v8-U.pdf>

a. **Deliverable 5 by C+7 months: Training Options Analysis (TOA):** Building on deliverable 4, and taking full account of reviewed deliverables 2-4. The TOA should primarily recommend a cost effective solution to train those gaps identified and endorsed for further assessment by the TNASG. This will inform future acquisition planning, notably in terms of empowering the TNASG to seek additional funding in instances where training gaps are considered serious enough to warrant further work. This TOA shall, as a minimum, outline the nature of the gap, fidelity requirements and describe a potential range of costed remedial training options. In line with RN policy, MML operator training shall be incorporated in to the Maritime Composite Training System (MCTS) provided by BAE Systems at HMS Collingwood.

b. **Deliverable 6 by C+9 months: Training Needs Report:** Following a final review of the accuracy and validity of deliverables 1-5, deliverable 6 comprises a Training Needs Report that specifies the requirement and recommends a training solution through the evaluation of options. The report should include details of the resources required to design and support the recommended training and contain an Implementation Plan and Training Need Evaluation (TNE) strategy.

Definitions

2. Definitions used for describing the deliverable are:

a. **Must / shall.** Failure to comply with this requirement will result in the deliverable failing to be endorsed.

b. **Should / could.** It is strongly recommended that this is included. Any other method or approach will be considered, provided it achieves the outlined aim to the TNASG's satisfaction.

c. **May.** This may be included if it adds value to the final report.

Governance

3. The TNASG will oversee the endorsement of any deliverables and will be the point of contact for the duration of the work. The TNASG shall consist of the following (endorsing members indicated by an asterisk*):

- a. The MML Project Team Project Manager*
- b. Training Requirements Authority (TRA) – Branch Manager(s)*
- c. NCHQ Training Capability Manager(s)*
- d. NCHQ TNA QA*
- e. Capability Desk*
- f. Training Delivery Authority (TDA) Representative
- g. Training Establishment Representatives
- h. MTAO

4. Other representatives or bodies may be invited to the TNASG as required.

Required Content

5. All deliverables under this requirement will be subject to review and acceptance by the TNASG in accordance with the endorsement process detailed in Annex B.
6. The following are stakeholders in the TNA and should be consulted during its production in addition to the TNASG membership:
 - a. DE&S MTAO-MCS AW Programme Manager (for MCTS aspects)
 - b. Training Establishment course managers
 - c. Relevant Chief Instructors
 - d. Training Establishment SO2 Training Management (for MWS/DSMarE Training Design aspects)
7. All documents produced must demonstrate that they have been subject to an internal quality review process prior to issue. This must be completed by providing evidence of the outcome of the review process in addition to sign-off on the front cover.
8. Abbreviations shall be defined in a taxonomy that shall utilise the naval taxonomy where in common use.
9. All documents produced shall maintain the same numbering system (in line with guidance in JSP 822) as used within the prior deliverable to allow cross-referencing between deliverables and tracking of tasks within the RPS through to their final Training Objective.
10. All analysis must show clear evidence that MOD and Single Service training strategy and policy, notably synthetic training⁴, Capability Joint Training Evaluation and Simulation work and the DTEC Agenda;⁵ has been understood with implications and dependencies thoroughly considered.
11. The supplier shall warrant all documents, evidence and pictures provided in support of the deliverables will become Crown property, entirely free for use by the TNASG for further use in any downstream activities of the procurement of training. Bidders are to warrant that they will not attempt to re-sell, re-use or distribute such documents, evidence and pictures obtained or generated in the course of this task without the express permission of the Authority.
12. All deliverables must be written in plain English, with good spelling and grammar. Further, they must be written using unequivocal language that states the relevant points clearly and precisely.
13. All deliverables must be supported throughout by evidence that has been clearly audited and referenced. All risks and assumptions shall be captured and formally passed to the TNASG for recording within the overarching project Risk Register and Master Data Assumption List (MDAL).
14. Any alternative processes or classification systems used within the TNA process must demonstrate, to the TNASG's satisfaction, as being at least as effective as those defined in JSP 822 Part 2 (V2.0 Mar 16) pages 13-61. The output of the analysis shall align with the Authority's Training Categories in use at the time of the Tasking Order.

⁴ JSP 822 Part 1 (V2.0 Mar 16) Page 50 Simulated Training.

⁵ JSP 822 Pt 2 (V2.0 Mar 16) Page 125- the Defence Training and Education Capability (DTEC) modelling and simulation rules.

Conduct of TNA

15. In order that the MML training solutions are comprehensive, offer optimal value for money, and are delivered in the requisite timeframe, all TNA must be conducted in accordance with the following guiding principles:

- a. While the TNA should pursue the methodology outlined in JSP 822 Part 2 (V2.0 Mar 16) pages 13-61, it must be undertaken in the context of existing commitments and constraints that shall be determined and agreed during the start-up meeting. Nugatory work, especially where there is no financial or commercial 'freedom of manoeuvre' should be minimised, albeit justified within TNA deliverables. This SoR outlines the minimum requirement and takes account of commitments and constraints now.
- b. The TNA should ascertain residual training gaps against existing plans and commitments. Where analysis suggests that these assumptions and constraints may not provide a comprehensive training solution that meets the requirement, the supplier should highlight gaps and recommend solutions. As an example, the training solution is likely to rely on the equipment that is being used to deliver current training. The TNA should determine if this would service all specific training requirements for the MML; if it cannot, the TNA should highlight key gaps and potential solutions for further consideration by the TNASG.
- c. The TNA should conduct the full range of analysis in high-level DSAT documentation needed to support subsequent training design activity. However, the deliverables should be tailored according to the programme and content of deliverables outlined above.

16. It is imperative that the TNA provides a detailed audit trail in order for any deliverables to be endorsed by the SMEs within NCHQ TNA QA authority and the TNASG endorsing members. Payment of milestones is dependent on TNASG endorsement.

ENDORSEMENT OF DELIVERABLES

1. The TNASG, either in or out of committee, will be called upon to validate ALL deliverables, identifying any concerns or direction for further work back to the supplier. Each product will be endorsed as a separate product and full endorsement will be conferred upon delivery of all products; endorsement of this final deliverable will reflect successful completion of the entire task.
2. A review of assumptions, risks and findings must be undertaken prior to the release of each subsequent deliverable; pursuing such an iterative approach is critical to ensuring the final output is as up-to-date and relevant as practicable.
3. The review and endorsement process runs as follows:
 - a. Each deliverable will be circulated for comment and consideration to the TNASG.
 - b. Members will have 10 working days to respond to the PT lead with their comments.
 - c. Collated comments will be passed to the supplier for action, with a TNASG to be held no sooner than 3 working days later.
 - d. Subject to all actions being carried out, the report can then be endorsed by the TNASG.
 - e. If the report cannot be endorsed and requires re-work, the supplier will then submit an up-issued version for the above process of circulation and comments with another 10 working days for TNASG review.
 - f. The report may, on occasion, be endorsed out of committee by TNASG endorsing members.
4. The report may be re-submitted and reviewed as many iterations as is necessary to gain TNASG endorsement. Without endorsement, payment cannot be authorised.
5. The TNASG will oversee the endorsement of any deliverables and will be the point of contact for the duration of the work. The TNASG shall consist of the members as articulated in Annex A.
6. Other representatives or bodies may be invited to the TNASG as required.

PROPOSED PRICING SCHEDULE

Milestone	Description	Price (To be provided by Contractor)
1	Deliverables 1 and 2 - TSP and SER Endorsed by the TNASG	
2	Deliverable 3 - RA Endorsed by the TNASG	
3	Deliverable 4–TGA Endorsed by the TNASG	
4	Deliverable 5 –TOA report Endorsed by the TNASG	
5	Deliverable 6 – Training Needs Report Endorsed by the TNASG	