



Situational Awareness Command & Control
DT

Surface Maritime Link 22

FTS/DE/SACC/07 - Annex A Statement of Work for Expert Technical Support

D/SACC/04/10/02

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AUTHORISATION

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AMENDMENT HISTORY

Issue No.	Details of Amendment	Amended By	Date
0.1	Initiation (First Draft)	SACC DL PM3	06/11/2015
0.16	Draft	SACC DL PM3a	11/02/2016
1.0	Final	SACC DL PM3a	11/02/2016

TABLE OF CONTENTS

AUTHORISATION.....	1
AMENDMENT HISTORY.....	1
TABLE OF CONTENTS	1
LIST OF ABBREVIATIONS.....	3
BACKGROUND	4
SCOPE.....	4
WORKPACKAGE	5

List of Abbreviations

Abbreviation	Description
CIWG	Capability Integration Working Group
CSIC	Command System Integration Committee
DLCP	Data Link Control Panel
DLP	Data Link Processor
FOC	Full Operational Capability
IOC	Initial Operational Capability
ISD	In-Service Date
JRE	Joint Range Extension
L16	Link 16
LPD	Landing Platform Dock
PMO	Programme Management office
QEC	Queen Elizabeth Carrier
SACC DT	Situation Assessment Command and Control Delivery Team
SML22	Surface Maritime Link 22
SoW	Statement of Work
T23	Type 23
T26	Type 26
T45	Type 45
TDL	Tactical Data Link

BACKGROUND

1. The Surface Maritime Link 22 (SML22) is a RN Multi-Link Capability Enhancement Programme that will deliver a significant uplift in capability to the data link systems on royal navy (RN) vessels. This will be delivered through two interdependent Projects namely Phase 1 Link 16 Upgrade Project and Phase 2/3 Link 22 Project.
2. Phase 1 Link 16 Upgrade Project aims to treat current operational interoperability issues by upgrading Link 16 on T45 to STANAG 5516 Edition Six Standards, while Phase 2/3 Project aims to deliver Link 22 to achieve interoperability and beyond line of sight (BLOS) capability on targeted platforms. Link 22 and Link 11 will run concurrently until the link 11 out-of-service date, at which point Link 22 will become the primary BLOS data link.
3. Phase 1 Link 16 Upgrade Project is managed by DES Ships MCS under WSpt commercial arrangements with T45 COM and it is currently in the demonstration and manufacturing stages. While Phase 2/3 Link 22 Project is managed by SACC DT and currently in its assessment stage.
4. SACC DT is currently working with key stakeholders to establish a programme of work to take account of the data link needs of various platforms. The surface ship platforms planned to receive the RN Multi-Link Capability are the T45, QEC, T23 and LPD.
5. SML22 is a Cat C Medium-Long term programme, managed and delivered by DES SACC DT in collaboration with DES Ships MCS, T45 COM, the Main Contractor and other Sub-Contractors. The Project is sponsored by the Joint Forces Command as part of the NILE programmer.
6. The SML22 Project requires precise technical knowledge about integral parts of the Tactical Data Link (TDL) systems used in the maritime arena, line of sight (LOS) and beyond line of sight (BLOS). This knowledge is provided by user expertise via Navy Command (NC), MoD technical authorities as in JDLMO, Portsmouth Technology Park (PTP) and the contracted expertise of a TDL System Engineer.
7. The TDL System Engineer is viewed as an essential appointment necessary to reduce MOD risk in implementing modern complex Tactical Data Link Systems. This expertise can be supplied by only a few specialists in the world. In addition to having exceptional experience in the design specification and implementation of RN Data Link Systems over recent years, the expert should be experienced in Combat System integration, which is identified as another major risk area for the project. In addition, the expert needs to have extensive up-to-date awareness of MOD Project Management to fit in with clear DE&S processes.
8. The forthcoming demands on this expertise are to:
 - a. help in achieving Main Gate (2016),
 - b. aid in setting and monitoring progress in the programme,
 - c. provide essential detailed technical support in contract negotiations.

SCOPE

9. The Contractor shall require detailed knowledge of TDL Systems including:
 - a. Link 22 (STANAG 5522 edition 5)
 - b. Link 16 (STANAG 5516 all editions)
 - c. Link 11 (STANAG 5511 all editions)
 - d. (STANAG 5616 all editions)
 - e. (STANAG5518 editions 3 & 4)
 - f. (STANAG 4175 all editions).

10. The effort required under this contract is estimated at 104 days over 12 months. This should take the contract up to Main Gate approval; however, there may be a requirement to extend by a few months if Main Gate is delayed.

WORK PACKAGE

FOR SML22 SME SUPPORT

Note: Reports shall be **Soft / Electronic / Printable / Auditable** using any (where specified) or a combination (as appropriate) of **MS Word, PDF, MS Power-Point or Excel** format.

Item	TASK Description	DELIVERABLE	Duration/Target Date
A	Provide Subject Matter Expert support to DES SACC DL-PM3 on all technical aspects of the SML 22 programme to achieve main gate approval. This expertise shall cover all aspects of Link 11, Link 16, Link 22, JRE and STDL tactical data links within the Royal Navy and platform combat systems.	Attendance at meetings with industry and Navy Command. Review/prepare documentation and provide technical reports, working papers and technical direction to the SML 22 programme and DES SACC DL-PM3 to assist in achieving Main Gate Approval.	Contract duration.
B	Provide direction to the Authority with clarification on technical issues that concern the SML 22 programme and the baseline requirement. Where necessary, gain direction from Navy Command where the questions raised concern operational issues.	Provide a monthly report (electronic) to DES SACC DL-PM3 on technical progress. Formal responses to questions to be provided within two weeks of receipt using the most appropriate and auditable means as agreed DES SACC DL-PM3 Formally update and distribute the Engineering Log every two months.	Report to be provided monthly. Formal responses to questions to be provided within two weeks of receipt. Engineering Log to be formally updated and distributed every two months.
C	Review Data Link Change Proposals instigated by NATO for impact on the SML 22 baseline. Attend Data Link Control Panel (DLCP) Configuration Change	Provide a report to DES SACC DL-PM3 on proposed changes and potential impact on the baseline requirement one week prior to the next DLCP CCB. Attend DLCP Configuration Change Control Boards which	Report to DES SACC DL-PM3 to be provided one week prior to the next DLCP CCB. Attend DLCP Configuration Change Control Boards every four months (these will

	Control Boards which are held every four months.	are held every four months.	be held in the South West).
D	Review documentation and problem reports emanating from the NILE PMO and C&IWG meeting for impact on the SML 22 programme. Attend CIWG meeting in support of the national representatives as and when required.	Provide a monthly report to DES SACC DL-PM3 describing activities arising from the NILE PMO. Attend C&IWG meeting as and when required.	Report to DES SACC DL-PM3 to be provided monthly. CIWG meetings are held twice a year (contractor will not be required to attend these meetings if they are held outside of Europe).
E	Develop a Configuration Management plan to record and prioritise recorded problem reports in preparation for formal sentencing.	Deliver an SML 22 Configuration Management Plan for the provision of a SACC Configuration Management database and reporting system.	Plan to be delivered by the 30 th of June 2016.
F	Maintain the configuration status of all SML 22 baseline documents using formal change control procedures.	Provide a monthly report on items where the baseline documents require modification.	Report to be provided monthly. Maintain configuration status of all SML 22 baseline documents for the duration of the contract.
G	Develop a JRE satellite connectivity migration plan for the integration of JRE within UK Networks.	Develop the migration plan for staffing with the Network Technical Authority.	Draft plan to be delivered by the 15 th of July 2016. Final plan to be delivered by October 2016.
H	In collaboration with Phase 1 Technical SME, Develop a baseline migration plan for the transfer of Type 45 Link 16 Development capabilities into the Phase 2/3 activities.	Develop a migration plan for the transfer of the Type 45 Link 16 Development baseline and extant issues, into the SML22 Phases 2/3 baseline.	Draft plan to be delivered by the 30 th of November 2016. Final plan to be delivered by Feb 2017.
I	Provide support to DES-SACC-RN3 to facilitate a transfer of SME technical knowledge in support on the SML 22	Provide and implement a Continuing Professional Development (CPD) plan to get a member of the SACC DT to a state	Formal CPD plan to be provided within 4 weeks of contract award.

	programme.	where he can operate as a tactical data link expert. The plan will be subjected to DES SACC RN3 approval	
J	Contribute to the development of a SoW for T45 Command System Impact Assessment for the introduction of an integrated TDL Link 22 (+ L16, JRE(C), Link 11) solution by producing all technical aspects of the document.	Production of all technical aspects of the SOW.	Draft technical aspects of SoW by the 1 st of June 2016.
K	Attend CSIC Meetings Quarterly and CSIC Surgeries monthly (as required). Provide written and verbal reports and responses to technical questions raised at these meetings.	Attendance at meetings and written and verbal reports.	Attend CSIC meetings quarterly (meetings will be held somewhere in the South West). Attend CSIC surgeries as required (they are held monthly, but contractor's attendance may not be required every month – they will be held somewhere in the South West). Written and verbal reports to be provided to DES SACC-DL-PM3 within two weeks of attending meetings.
L	Attendance and participation in trial planning conferences for a live Link 22 international interoperability trial with NATO members.	Attend and participate in trial planning conferences. Provide draft outline Link 22 interoperability plan.	Attend and participate in trial planning conferences for duration of contract. Provide draft outline Link 22 interoperability plan by the 1 st of September 2016.
M	Attendance and participation in progress and technical meetings held with contractor(s) (approx. monthly) in execution of Command Systems integration,	Attend and participate in progress and technical meetings with contractor(s). Provide DES SACC-DL-PM3 with a Monthly	Monthly. Monthly.

	SoW development and DLP solution studies. These meetings will be held in Bristol, Yeovil or New Malden.	Progress Report.	
N	Attendance and participation in progress and technical meetings held with contractor(s) (approx. monthly) in execution of Command Systems integration of Link 22 and DLP solution implementation. These meetings will be held in Bristol, Yeovil or New Malden.	Attend and participate in progress and technical meetings held with contractor(s). Maintain a record of technical decisions through the existing Engineering Log. Formally update and reissue the Engineering Log every two months.	Attend and participate in meetings monthly. Maintain a record of technical decisions for the duration of the contract. Formally update and reissue the Engineering Log every two months.
O	Attendance and participation in SACC DT Main Gate Business Case Working Groups (approx. monthly) addressing technical aspects in support of technical assurance (DLP, Command System Integration, Command System Integration Testing schedules). These meetings will be held in Bristol, Yeovil or New Malden.	Attend and participate in SACC DT Main Gate Business Case Working Groups.	Monthly (contractor may not be required to attend every meeting).
P	Collate Link 22 Problem reports from Industry and stakeholders as they arise, compare with known issues and resolutions and correspond with the NILE Programme Management Office (PMO) for resolution during the assessment phase. Receive, record and disseminate NILE PMO responses to SACC DT.	Collate Link 22 Problem reports as they arise and receive, record and disseminate NILE PMO responses to SACC DT. Maintain a record of technical issues and formal technical direction provided through the existing Engineering Log. Formally update and reissue the Engineering Log every two months.	Contract duration. Contract duration. Formally update and reissue the Engineering Log every two months.
Q	Contribute to the	Produce of all technical	Draft technical aspects

	development of the SoW for T45/T23/QEC, LPD platforms TDL solution working towards Link 22 Main Gate Business Case by producing all technical aspects of the document.	aspects of the SoW	of SoW by the 1 st of June 2016.
R	Contribute to establishment and confirmation of L22 IOC / ISD / FOC requirements documentation for T23/T45/QEC /T26 platforms by producing and reviewing all technical aspects of the documentation.	Establish and confirm L22 IOC / ISD / FOC requirements documentation for T23/T45/QEC/T26 platforms. Maintain the configuration of the SML 22 baseline documents, reporting their formal status every two months.	First draft of documents required by 30 June 2016. Second draft of documents required by 30 November 2016. Contribution/updates to documents will be required until Main Gate. Maintain configuration for duration of contract. Report formal status of documents every two months.
S	Contribute to the development of a SOW for T23 Command System Impact Assessment for the introduction of an integrated TDL 22 (+ L16, JRE(C), Link 11) solution by producing all technical aspects of the documentation.	Produce all technical aspects of the SoW.	Draft technical aspects of SoW by the 1 st of June 2016.
T	Critically appraise contractor's costed technical options proposal for post MG work for integration of Link 22 (+ L16, JRE(C), Link 11) in LPD Command System.	Review contractor's system design documents and provide DES SACC-DL-PM3 with formal comments within two weeks of receipt of documentation.	Review documentation and provide formal comments within 2 weeks of receipt (proposals are expected to come in from June 2016 onwards).
U	Critically appraise contractor's costed technical options proposal for post MG work for integration of	Review contractor's system design documents and provide DES SACC-DL-PM3 with formal comments	Review documentation and provide formal comments within 2 weeks of receipt (proposals are expected

	Link 22 (+ L16, JRE(C), Link 11) in T26 Command System.	within two weeks of receipt of documentation.	to come in from June 2016 onwards).
V	Critically appraise contractor's costed technical options proposal for post MG work for integration of Link 22 (+ L16, JRE(C), Link 11) in QEC Command System.	Review contractor's system design documents and provide DES SACC-DL-PM3 with formal comments within two weeks of receipt of documentation.	Review documentation and provide formal comments within 2 weeks of receipt (proposals are expected to come in from June 2016 onwards).
W	Critically appraise contractor's costed technical options proposal for post MG work for integration of Link 22 (+ L16, JRE(C), Link 11) in T45 Command System.	Review contractor's system design documents and provide DES SACC-DL-PM3 with formal comments within two weeks of receipt of documentation.	Review documentation and provide formal comments within 2 weeks of receipt (proposals are expected to come in from June 2016 onwards).
X	Critically appraise contractor's costed technical options proposal for post MG work for integration of Link 22 (+ JRE(C), Link 11) in T23 Command System.	Review contractor's system design documents and provide DES SACC-DL-PM3 with formal comments within two weeks of receipt of documentation.	Review documentation and provide formal comments within 2 weeks of receipt (proposals are expected to come in from June 2016 onwards).
Y	Critically appraise contractor's costed technical proposal for FOC work for T23, T45, Landing Platform Dock & QEC.	Review contractor's system design documents and provide DES SACC-DL-PM3 with formal comments within two weeks of receipt of documentation.	Review documentation and provide formal comments within 2 weeks of receipt (proposals are expected to come in from June 2016 onwards).
Z	Critique and appraisal of bidder's technical response for development of SOW for T23 Command System Impact Assessment for the introduction of an integrated TDL Link 22 (+ JRE(C), Link 11) solution.	Review the technical response and provide formal comments for review with DES SACC-DL-PM3 within two weeks of receipt.	Review the technical response and provide formal comments for review with DES SACC-DL-PM3 within two weeks of receipt (proposals are expected to come in from June 2016 onwards).
AA	Critique and appraisal of bidder's technical response for development of SOW for T45 Command System Impact	Review the technical response and provide formal comments for review with DES SACC-DL-PM3 within two weeks of receipt.	Review the technical response and provide formal comments for review with DES SACC-DL-PM3 within two weeks of receipt

	Assessment for the introduction of an integrated TDL Link 22 (+ JRE(C), Link 11) solution.		(proposals are expected to come in from June 2016 onwards).
BB	Generate MOD UK contribution to international live interoperability trial schedule on behalf of SACC DT.	Provide a system plan for review and comment to SACC-DL-PM3.	By the 31 st of August 2016.
CC	Maintain technical oversight of modifications to MOD assets required for participation in international interoperability trial. Provision of technical reports to contractor(s) in embodiment of Foreign GFE into UK MOD and CFE assets.	Provide a list of the modifications required to MOD assets required to conduct the international interoperability trial by 30 September 2016 or twelve weeks prior to the trial, whichever comes first.	By the 30 th of September 2016 or twelve weeks prior to the trial, whichever comes first.
DD	Produce 6 monthly update reports during the development of Single Link Requirements documents (SLIRS) for Link 22 and Link 16 (+ JRE(C), Link 11) enhancement programmes.	Produce update reports every 6 months. Maintain configuration of the baseline documents and advise SACC-DL-PM3 of their status every two months.	Produce update reports every 6 months. Maintain configuration of the baseline documents for the duration of contract. Produce technical reports for SACC-DL-PM3 on the status of the baseline documents every two months.
EE	Provide technical content portions of draft L22 MGBC in support of SACC DT deliverables.	Produce technical documentation for L22 MGBC.	First draft required by the 30 th of September 2016. Contribution/updates to MGBC required until Main Gate.
FF	Provide technical input for the development of the JRE(C) Unicast and Multicast satellite communications capability.	Liaise with DES SACC RN 3 to assist in the provision of satellite communications capacity with Network Authority at Corsham. Provide a draft Internet Protocol (IP) migration plan to achieve satellite JREAP IP connectivity	By the 1 st of July 2016.

GG	Provide technical input to the development of a TDL upgrade path in the LPD DNA2 upgrade solution for the LPD and for the Navy Command Head Quarter second tranche requirement for SM Link 22 in these platforms.	Provide technical input/documentation.	Contract duration.
HH	Provision of specialist technical input to the development in the enhancements of Type 23 combat system data exchange specification to support the introduction of SM Link 22 (+ L16, JRE(C), Link 11) into service and other enhancements in line with DEFSTAN 21-88 requirements. Liaise with combat systems' stakeholders and develop a SACC DT plan to trial / demonstrate / validate and introduce into service. Reviews to be conducted and quarterly reports provided to SACC DT.	Provide technical advice/documentation. Develop a SACC DT plan to trial / demonstrate / validate and introduce into service by January 2017. Conduct reviews and produce quarterly reports.	Contract duration. Contract duration. Conduct reviews and produce reports quarterly.
II	Provision of technical reports to Contractor(s) and SACC DT to support the Acceptance process running up to Main Gate.	Reports to be to be produced within two weeks of request.	Reports to be given within two weeks of request.
JJ	Provision of technical reports to SACC DT in the generation of selected DLP solution to ensure the correct STANAG level baselines are implemented for Link 16 / Link 22 (+ JRE(C) & Link 11).	Reports to be given within two weeks of request.	Reports to be given within two weeks of request.

KK	Provision of technical reports to SACC DT on development of FOC SOW for T45, T23, LPD and QE classes.	Reports to be given within two weeks of request.	Reports to be given within two weeks of request.
LL	Provision of technical review to SACC DT regarding platform Data Link Processor (DLP) solution selection and associated Command System Integration and testing risks.	Review to be given within two weeks of request.	Review to be given within two weeks of request.
MM	Review and enhance, where necessary, the existing Multilink Technical Interface documents to provide the STANAG rules to support introduction of new TDLs or enhancements.	Draft reviews and updates (where necessary).	Every 6 months.
NN	Critique and appraisal of eSMART documentation produced by associated contractors and recommend changes / alterations as necessary.	Review documents and provide comments within 2 weeks of receipt.	Contract duration.
OO	Provision of technical oversight of Link 22 (+JRE(C), Link 11) TDL chain integration with T45 Command System to assure interoperability in accordance with SACC DT TDL Planning.	Provide technical oversight.	Contract duration.
PP	Provision of technical oversight of Link 22 (+L16, JRE(C), Link 11) TDL chain integration with T23 Command System to assure interoperability in accordance with SACC DT TDL Planning.	Provide technical oversight.	Contract duration.