Headquarters Supreme Allied Commander Transformation

STATEMENT OF WORK
for Deliverables in Support of Analyses of Alternatives for TRITON (NATO Maritime C2 Services) increment 2

RB-ACT-SACT-21-88

13 July 2021

1. INTRODUCTION

The purpose of this Statement of Work (SoW) is to describe the scope of the contracted services required in support of North Atlantic Treaty Organization (NATO) Maritime Command and Control (C2) Services Increment 2 (TRITON) Capability Programme Plan (CPP).

The NATO recently adopted a new Common Funded Capability Delivery (CFCD) model intended to enhance the speed of capability delivery for NATO's common funded capabilities. The model includes six stages focused on through lifecycle capability delivery and includes persistent collaboration between Allied Command Transformation (ACT) and Allied Command Operations (ACO), NATO's two strategic commands. The model is focused on satisfying operational requirements with capability solutions across the spectrum of Doctrine, Organisation, Training, Materiel, Leadership, Personnel, Facilities, and Interoperability (DOTMLPFI).

The TRITON increment 2 programme is currently developing a consolidated, comprehensive programme plan that will deliver a required capability to be detailed in the Capability Programme Plan (CPP). This plan will direct the necessary actions across the NATO-recognised lines of development including doctrine, organisation, training, materiel (including software), leadership, personnel, facilities and interoperability. The NATO CFCD Governance Model includes decision points on the:

- Requirement (via the Operational Requirements Statement) – the programme mandate;
- Viability of a capability-based programme to satisfy the requirement (via the Capability Requirements Brief) – the programme brief and vision; and
- Establishment of a programme to deliver capabilities and to drive the transformational change (via the Capability Programme Plan) – the programme creation.

The CFCD model considers a range of potential courses of action to address a requirement, including the possibility of "Adopt"-ing a solution (from Nations), "Buy"-ing (acquiring a solution from Industry), or "Create"-ing (developing a solution bespoke to NATO). The varied options are analysed across DOTMLPFI lines of development. To support the CPP, Analysis of Alternatives (AoA) are conducted to provide a comparative analysis of the Operational Effectiveness, Rough Order of Magnitude (ROM) Life Cycle

Costs (LCC), and Risk and Opportunities of identified alternatives (considering all DOTMLPFI aspects). The AoA in NATO's Capability Delivery Lifecycle Standard Operating Procedure [Ref A] provides guidance to conducting AoA in support of NATO CFCD programmes.

2. BACKGROUND

Maritime Operations are the set of military activities that are conducted by maritime air, surface, sub-surface and amphibious forces to attain and maintain a desired degree of control of the surface, sub-surface, and air above the sea, influence events ashore, and, as required, support land, air and space operations. NATO ACO operations staff requires automated command and control information services to effectively plan, execute, monitor and assess Maritime Operations in responsive and timely manner.

"Project TRITON" is the name given to all implementation activities associated with the delivery of services in support of Maritime Command and Control. The name "TRITON" was chosen by Allied Command Transformation (ACT) and the NCI Agency (former NC3A) in 2009 to simplify the way in which the acquisition activities associated with this project are described. The full scope of capabilities will be achieved through an incremental approach. The TRITON Increment 1 Project will deliver services to provide the users with Maritime Capabilities, primarily the Maritime Situational Awareness (MSA) to replace the existing MSA Operational Prototype (MSA/BRITE), as well as to provide for a replacement of Maritime Command and Control Information System (MCCIS) functionality at the operational headquarters and centres [TBCE]. TRITON Increment 2 Project will deliver Maritime Operational and Naval Mine Warfare Planning and Execution Functionality.

This document covers only the Capability Programme Planning (CPP) for the Increment 2 of the project.

3. SCOPE OF WORK

The current scope of work required to support the development of the TRITON increment 2 project is to perform cost analysis of the alternatives submitted by nations and industries. Seven alternatives have to be analyzed.

Cost Analysis: Costs of each alternative across its whole life cycle. The Lifecycle Cost Analysis takes into consideration affordability constraints, DOTMLPFI capabilities, inflation, interoperability, sustainment, and length of the lifecycle. Cost analysis requires gathering and assessment of relevant cost data from identified stakeholders.

The purpose of the Life Cycle Cost estimation is:

1. To compare analysis and identify the preferred alternative.
2. To provide inputs for the programme implementation section of the CPP.

The Deliverables produced by the Contractor shall contribute to:

- Supporting HQ SACT PE staffs' ability to manage efficiently NATO's transformation programmes.
- Reducing uncertainty by contributing to the production of evidence-based outcomes.
- Enabling innovation by providing alternative perspectives or methods.
- Enhancing HQ SACT's responsiveness and agility to address emergent and urgent requirements by providing niche technical contributions on a "just in time" basis in which support is rendered only as and when essential to the success of SACT's mission.
- Identifying and solving practical problems that cannot be determined through studies and analysis alone.
- Fostering a greater depth of understanding of complex subject matter.

4. DATA AVAILABLE

Data available for the TRITON capability consists of NATO Communications and Information Agency (NCIA) products, services and surveys, old Capability Package (CP) project data sheets (PDS), and also documentation from NCIA and Industry related to the increment 1 of the project. The supplier will further require to liaise with programme staff and stakeholders to solicit additional information and data as needed. The majority of data will be passed to the supplier by 1 September 2021:

- Identification of potential alternatives and options for the delivery of services.
- Identification and collection of all operational effectiveness measures, their associated risks, and overall lifecycles costs for the capability and individual services.
- Risks and issues for all DOTMLPFI lines of development for each of the alternatives.
- Data collected from the Service Provider, list of services, associated costs, and overall lifecycle plan for the services.
- Industry and Nations quotations on aforementioned services.
- Collection of existing PDSs, information from previous programmes and projects.
- Compilation of all collected data related to lifecycle costs, schedules and risks.

5. REQUIREMENT DESCRIPTION

The supplier shall provide deliverables to identified NATO ACT Technical Authorities for the following analysis tasks:

a) Continuously consult as appropriate with technical authority, project/programme managers, operational users, etc., within NATO commands and agencies to obtain the information necessary for analysis;
b) Collect the relevant documents and information from programme subject matter experts and stakeholders;
c) Facilitate workshops as necessary to solicit or consolidate information required for analyses;

d) **Comparative Rough Order of Magnitude Life Cycle Cost (ROM LCC) estimates** of alternatives as per Ref A:
    i. Liaise with NCIA and NATO SACT CAP DEV action officers to understand the requirement, be presented with the cost data or initial estimates and define other data required to undertake assessment of cost estimates.
    ii. Analyze the collection of project data sheets, previous cost estimates and available data provided by NCIA. Upon consultation with NCIA and SACT CAP REQS AOA, develop a cost breakdown structure (CBS) suitable for comparative analysis. Map the available data (including supplier data sources) to the identified alternatives across the CBS indicating (a) direct applicability (e.g. parametric), (b) indirect applicability (e.g. analogy), (c) no applicability / data missing.
    iii. Develop a ROM LCC model and analysis roadmap (proposal) for the programme detailing the types of analyses (methods, models, etc.), required data gathering, presentation of results, etc.
    iv. Develop the ROM LCC model and perform analysis: develop estimates with risk/uncertainty for each of the alternatives. The required form for presentation of total estimated costs includes synthesis as a three point estimate reflecting Baseline Estimate (Most Likely), Optimistic Estimate, and Pessimistic Estimate with example risk scenarios mapped to each and the degree of confidence in estimation.
e) **Documentation** as per Ref A: detailed accompanying analytical report in specified format that provides all supporting evidence for the analysis and evidence for the recommendation of selected alternative(s);
f) Absolute Rough Order of Magnitude Life Cycle Cost (ROM LCC) analysis of the chosen alternative.
g) Undertake regular interactions to brief progress and process clarifications; provide progress reports to the technical authorities.

6. DELIVERABLES

1. Contribute and provide deliverables to support the further development and production of the TRITON increment 2 project. This task is to be achieved through :
    a. Execution of workshops for data collection.
    b. Cost Data and Assumptions List (CDAL) and summary of proposed approach.
    c. Life Cycle Cost Estimation Report, to include:
        i. Basic definitions, ground rules, boundaries and assumptions used in cost estimation process.
        ii. Models and methods adopted for costs estimation.
        iii. Cost Breakdown Structure: DOTMLPFI costs elements data.
        iv. Identification of the cost drivers, in particular those that differentiate alternatives.

v. Risk and uncertainty assessment, including a set of risk scenarios.
vi. Estimated Life Cycle Cost in a format consistent with the results of the estimation method used and with the risk and uncertainty assessment. The required form for presentation of estimate cost includes synthesis as a three-point estimate reflecting Baseline Estimate (Most likely), Optimistic Estimate, and Pessimistic Estimate with example risk scenarios mapped to each and the degree of confidence in estimation.

d. Briefing/presentation of preliminary and final findings.

2. Support the ACT Tasking Process and TRITON increment 2 programme director through the provision of update reports on the status of main activities on a bi-monthly (i.e. twice per month) basis.
3. Interact directly with external stakeholders within the scope of this contract.
4. Provide weekly verbal progress reports to the assigned Project Lead and COTR.

7. TIMELINES. Target timelines for outputs are:

a. Deliverable item by 27 SEP 2021 : Intermediate brief/review on cost data and assumptions list with HQ ACT;
b. Deliverable item (iv) by 25 OCT 2021 : Final Life Cycle Cost Analysis report in support of CPP for TRITON increment 2 project.
c. Deliverable item (v) by 25 OCT 2021 : Final Life Cycle Cost Analysis Brief based on the outcomes of the report.

These timelines are tentative and subject to contract award date and data availability.

8. TYPE OF CONTRACT AND PERIOD OF PERFORMANCE

a. **Type of Contract.** This is a Firm Fixed Price Deliverables in accordance with the General Terms and Conditions. All employer responsibilities for the Contractor Personnel performing under this contract shall lie with the Supplier.

b. **Period of Performance.** The Period of Performance is for one base period of 3 months: 15 AUG 2021 through 15 NOV 2021.

9. PLACE OF PERFORMANCE

Contractor Facility. The supplier will support staff based in HQ SACT, Norfolk VA for the performance of this contract, however will not be required to be co-located. No travel is expected.

10. CONTRACTOR SUPERVISION AND REPORTING

The Contracting Officer will assign a Contracting Officer's Technical Representative (COTR) to administer all technical contract details. The Contracting Officer has final authority (in consultation with the COTR) to determine if the contract/SOW should be

amended, extended, modified or cancelled for evolving requirements, new tasking, and/or technical non-performance.

The technical authorities for this contract will be Ms Amie Johnson, LCDR Ronan Gourves, SACT CAPDEV REQ AOA Branch Operations Research Analysts, and CDR Theodoros Bazinis, Maritime C2 Programme Director, SACT CAPDEV CAP OC2 Branch. For administrative purposes, Mr Justin Agbakwuru, SACT CAPDEV CAP IM Branch, will be the COTR.

a. The COTR shall:

(1) Resolve outstanding disputes, problems, deficiencies, and/or questions on the technical aspects of the SOW;
(2) Review (and approve) all Contractor duties for completeness and accuracy;
(3) Review the Contractor's work at a minimum of monthly, or more often if needed.

b. The COTR's written approval of work reported and products submitted is mandatory for contractor invoices to be successfully processed.

c. The contractor shall submit a monthly report to the COTR and the Contracting Officer, detailing progress on the SOW for the reporting period. The report shall include, but not be limited to, the following information:

(1) Summary of work and status of tasks undertaken during the reporting period;
(2) Contract hours expended showing a comparison with budgeted hours;
(3) Current or anticipated problems/deficiencies and recommended solutions.

d. The COTR reserves the right to amend the reporting requirements to receive alternate/additional data and information on a more frequent or less frequent basis, and to request other reports that detail designated aspects of the work or methods to remedy problems and deficiencies.

11. QUALITY OF DELIVERABLE. It is expected that all deliverables are developed/delivered in high quality. Reporting deliverables should be produced at the graduate level, in English using the appropriate Microsoft Office Software program. Analyses (and their documentation) must meet the following:

c. **Replication**: The contractor must provide a sufficiently detailed audit trail, including documentation of data and assumptions list to enable a third party to independently replicate the analyses.

d. **Rationale**: The contractor must provide justifiable rationale for the selection of the inputs to the proposed methods and models.

12. SECURITY AND INSTALLATION ACCESS

Personnel details are to be supplied as requested to allow access to HQ SACT, if required. All contractor personnel shall abide by the security restrictions regarding carrying and using electronic devices (e.g. laptops, cell phones) in all NATO facilities. The Supplier(s) shall be responsible for satisfying the necessary clearance requirements before bringing any such device into a NATO facility.

13. CONTRACTOR ESSENTIAL TECHNICAL COMPETENCIES. Contractor companies shall submit papers of no more than 15 pages (single-spaced) text, describing in detail:

e. Their expertise and past experience in developing and delivering products outlined in this SOW. Contractor companies shall cite at least one past performances based on contracts held within the last ten years that are of similar scope, magnitude, and complexity to the tasks, activities, and deliverables detailed in this SOW, or succinctly state that they have no relevant, directly related or similar past performance experience. Contractor companies shall show this relevant past and present experience in a manner that is directly traceable to the requirements of the SOW. In particular, contractor companies must show relevant experience in effectiveness, risk, cost and schedule analysis for similarly sized/complexity programmes.

f. Contractor companies shall identify the individual or set of individuals that will deliver on the task and provide evidence to assure appropriate levels of experience and expertise.

14. BIDDER EVALUATION. HQ SACT intends to award a firm-fixed price deliverables contract to the lowest-cost-compliant bid. Technical clarification of essential competencies may be conducted.

15. APPLICABLE STANDARDS AND GUIDES

Analysis of Alternatives in NATO's Capability Delivery Lifecycle Standard Operating Procedure [Ref A] provides indicative guidance to conducting analysis in support of NATO CFCD programmes. NATO standardization recommendation (STANREC) 4755 lists recommended practices regarding LCC estimation. NATO STANREC 4755 recommends the following standard: NATO Guidance on Life Cycle Costs ALCCP-01 (Edition B). NATO STANREC 4739 lists recommended practices regarding risk management, to include schedule.

16. REFERENCES:

a) NATO SOP 407 - The Analysis Of Alternatives in NATO'S Capability Delivery Lifecycle, Revision 1, 14 July 2020.
b) TRITON Increment 2 procurement options.
c) NATO STANREC 4755, NATO Guidance on Life Cycle Costs, EDITION 2, 23 May 18, NSO/0639(2018)WG3/4755.
d) NATO - ALCCP-1 NATO Guidance on Life Cycle Costs, EDITION B, Dec 17.

e) NATO SANREC 4739 on Risk Management EDITION, 11 April 2013 NSA/0496(2013)STR-CDS/4739.
f) NATO STANDARD ARAMP-1 NATO RISK MANAGEMENT GUIDE FOR ACQUISITION PROGRAMMES Edition 1 Version 1 FEBRUARY 2012.