



NATO UNCLASSIFIED

ACQUISITION DIRECTORATE

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NCIA/ACQ/2016/1506
24 August 2016

To : All Nominated Prospective Bidders

Subject : **INVITATION FOR BID**

Replace Submarine Broadcast Control Authority Communications Equipment

IFB-CO-14311-BCA

Reference(s) : A. AC/4-DS/2261 (1996 Edition)
B. AC/4-DS(2008)0002, AC/4-DS(2011)0009-FINAL-AS1 (Non Article 5 NATO-Led Operations Alliance Operation and Missions NSIP Procurement Regulations)
C. Serial 2015/1CM03027
D. AC/4/(PP)D/27480-ADD1
E. AC/4-DS(2016)0002
F. NCI Agency NOI NCIA/ACQ/2016/1306 dated 24 Jun 2016

Dear Sir / Madam,

1. Your firm is hereby invited to participate in an Alliance Operations and Mission International Competitive Bid (AOM ICB) under the Non Article 5 NATO-Led Operations Alliance Operation and Missions set forth in NATO document under Reference B, for the Replacement of Submarine Broadcast Control Authority Communications Equipment.
2. The scope of the envisaged project is to provide the Alliance with enhanced broadcast communications between Submarine Operating Authorities (SUBOPAETH) and submarines at sea delivering reliable and flexible communications within the NATO operational Area of Responsibility (AOR) with a 365, 24/7 availability. The full requirements are described in the prospective Contract, attached to this letter.
3. NATO intends placing one contract to cover the entire scope of the project. No partial bidding will be allowed.
4. Contract award will be based on the proposal evaluated as the lowest price, technically compliant in accordance with the selection criteria set forth in the Bidding Instructions.



NATO Communications
and Information Agency
Agence OTAN d'information
et de communication
Avenue du Bourget 140
1110 Brussels, Belgium
www.ncia.nato.int

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5. The reference for the Invitation for Bid is **IFB-CO-14311-BCA**, and all correspondence concerning the IFB should reference this number.

6. THE CLOSING TIME FOR SUBMISSION OF BIDS IN RESPONSE TO THIS INVITATION FOR BID IS 12:00 HOURS (BRUSSELS TIME) ON 3 OCTOBER 2016.

7. This Invitation for Bid consists of the Bidding Instructions, including Administrative Certificates and Bidding Sheets (Book I), and the Prospective Contract (Book II). The Prospective Contract contains the Schedule of Supplies and Services (Part I), Contract Special Provisions (Part II), Contract General Provisions (Part III), and the Statement of Work (SoW), to include Annexes A and B (Part IV). The SoW, and Annexes thereto set forth detailed specifications governing the performance requirements of the Contract.

8. The overall security classification of the Invitation for Bid is "NATO UNCLASSIFIED". This Invitation for Bid remains the property of the NCI Agency and shall be protected in accordance with the applicable national security regulations.

9. Bidders have the right to request IFB clarifications as outlined in section 2.6 of the Bidding Instructions (Book I). All requests for clarification will be dealt with strictly in accordance with the procedures at Reference A and Reference B.

11. Recipients are requested to complete and return the enclosed "Acknowledgement of Receipt" at Attachment A within 10 days of the date of this letter, informing the NCI Agency of their intention to bid/not to bid. Firms are not bound by their initial decision, and if a firm decides to reverse its stated intention at a later date, it is requested to advise the NCI Agency by a separate letter.

12. Bidders are advised that the NCI Agency reserves the right to cancel this IFB at any time in its entirety and bears no liability for bid preparation costs incurred by firms or any other collateral costs if bid cancellation occurs.

13. The NCI Agency point of contact for all information concerning this IFB is Mr. Joseph Vitale, Senior Contracting Officer, who may be reached at joseph.vitale@ncia.nato.int.

FOR THE GENERAL MANAGER:



Agata Szydelko
Deputy Director of Acquisition

Attachments:

A) Acknowledgement of Receipt of IFB-CO-14311-BCA

B) Invitation for Bid IFB-CO-14311-BCA

Distribution List

All Nominated Prospective Bidders 1

NATO Delegations (Attn: Infrastructure Adviser):

Belgium	1
Bulgaria	1
Canada	1
Czech Republic	1
Denmark	1
Estonia	1
Germany	1
Greece	1
Hungary	1
Iceland	1
Italy	1
Latvia	1
Lithuania	1
Luxembourg	1
The Netherlands	1
Norway	1
Poland	1
Portugal	1
Romania	1
Slovakia	1
Slovenia	1
Spain	1
Turkey	1
United Kingdom	1
United States	1

Embassies in Brussels (Attn: Commercial Attaché):

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Latvia	1
Lithuania	1
Luxembourg	1
The Netherlands	1
Norway	1
Poland	1
Portugal	1

Romania	1
Slovakia	1
Slovenia	1
Spain	1
Turkey	1
United Kingdom	1
United States (electronic copy to brussels.office.box@mail.doc.gov)	1
Belgian Ministry of Economic Affairs	1

Distribution for information

NATO HQ

NATO Office of Resources

Management and Implementation Branch – Attn: Deputy Branch Chief 1

Director, NATO HQ C3 Staff

Attn: Executive Co-ordinator 1

SACTREPEUR

Attn: Infrastructure Assistant 1

Strategic Commands

ACT

HQ SACT Attn: OF4 J. Maher, OF4 V. Bello 1

SHAPE

Attn: J6 – Mr Steve Wallis 1

Attn : J6 – Ms Kirsten Lund 1

NCI Agency – NATEXs

Belgium	1
Canada	1
Czech Republic	1
Denmark	1
Germany	1
Greece	1
Hungary	1
Italy	1
The Netherlands	1
Norway	1
Poland	1
Spain	1
Turkey	1
UK	1
USA	1

NCI Agency

ACQ Director of Acquisition – Mr P. Scaruppe	1
ACQ Deputy Director of Acquisition – Ms A. Szydelko	1
ACQ Contract Award Board Administrator - Ms M-L Le Bourlot	1
ACQ Chief of Contracts - Mr L.T. Herway	1
ACQ Principal Contracting Officer - Ms T. Pezzi	1
DIS – Chief NSII SL – Mr B. Kremer	1
DIS – NSII SL – Mr D. Kallgren.	1
DIS – Project Manager	1
DIS – Technical Lead	1
ACQ/ILS – Mr C. Lucas	1
NLO - Mr D. Harman	1
Legal Office	1
Registry	1

ATTACHMENT A
ACKNOWLEDGEMENT OF RECEIPT OF INVITATION FOR BID
IFB-CO-14311-BCA

Please complete and return (as .pdf scan) within 10 days
by e-mail to: Joseph.Vitale@ncia.nato.int

We hereby advise that we have received Invitation for Bid IFB-CO-14311-BCA
on _____, together with all enclosures listed in the Table of Contents.

PLEASE CHECK ONE:

- As of this date and without commitment on our part, we do intend to submit a bid.
- We do not intend to submit a bid.
- We are reviewing the requirements of the IFB and will notify you of our decision as soon as possible.

Signature: _____

Printed Name: _____

Title: _____

Company: _____

Address: _____

Bidders list for IFB-CO-14311 Replace Submarine Broadcast
Control Authority Communications Equipment

Vendor	Country
ATOS	BELGIUM
Equant	BELGIUM
Intersources N.V.	BELGIUM
NextiraOne	BELGIUM
RealDolmen NV	BELGIUM
Simac ICT Belgium	BELGIUM
Steria Benelux S.A	BELGIUM
-	
General Dynamics Canada Ltd.	CANADA
-	
Damasec Ltd	DENMARK
Integra Consult A/S	DENMARK
Systematic A/S	DENMARK
Terma A/S	DENMARK
-	
INEO Defense	FRANCE
LERC S.A.	FRANCE
-	
Atos Origin GmbH	GERMANY
FREQUENTIS Deutschland GmbH	GERMANY
Hagenuk Marinekommunikation GmbH	GERMANY
IABG mbH	GERMANY
Pan Dacom Direkt GmbH	GERMANY
Rockwell Collins Deutschland GmbH	GERMANY
Rohde & Schwarz GmbH & Co. KG	GERMANY
-	
ISI Hellas SA	GREECE
Space Hellas	GREECE
-	
Engineering Ingegneria Informatica S.p.A	ITALY
IDS Ingegneria dei Sistemi S.p.A.	ITALY
LOG.IN S.r.l	ITALY
SIRTI SpA	ITALY
-	
CGI Nederland B.V.	NETHERLANDS
Global Systems and Software	NETHERLANDS
Network Innovations B.V.	NETHERLANDS
UNI Business Centre BV	NETHERLANDS
Xantic B.V. (a Stratos company)	NETHERLANDS
-	

Airbus Defence and Space AS previously Astrium Services Enterprises	NORWAY
Datamatrix A.S	NORWAY
Kongsberg Defence & Aerospace AS	NORWAY
Thales Norway AS	NORWAY
-	
Asseco Poland S.A.	POLAND
Atende S.A.(prior ATM S.A.)	POLAND
COMARCH Spółka Akcyjna	POLAND
Designers S.J.	POLAND
OBR Centrum Techniki Morskiej	POLAND
Produs S.A.	POLAND
Solidex S.A.	POLAND
Sygnity S.A.	POLAND
-	
Informática El Corte Ingles (IECISA)	SPAIN
-	
Audax	UNITED KINGDOM
Babcock International Group	UNITED KINGDOM
BT Global Services	UNITED KINGDOM
Drumgrange Ltd.	UNITED KINGDOM
Isode Ltd	UNITED KINGDOM
-	
Affigent, LLC	UNITED STATES
International Solutions Group (ISG)	UNITED STATES
Mutual Telecom Services Inc. d/b/a BlackBox Network Services Government Solution	UNITED STATES
Sprint Communications Company, L.P.	UNITED STATES



NATO Communications and Information Agency
Agence OTAN d'information et de communication

**Replace Submarine Broadcast Control Authority
Communications Equipment**

IFB-CO-14311-BCA

BOOK I

INSTRUCTIONS TO BIDDERS

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1 INTRODUCTION

1.1 Purpose and Scope

- 1.1.1 The NATO Communications and Information Agency (NCI Agency), as designated Host Nation responsible for the implementation of the NATO Communications Infrastructure (NCI) is authorized to award a Contract to a Contractor (hereinafter referred to as “Contractor”).
- 1.1.2 This IFB consists of procurement and implementation of Hardware and Software under NATO Project “Replace Submarine Broadcast Control Authority Communications Equipment (BCA).”
- 1.1.3 The Broadcast Control Authority (BCA) is a portion of the NATO VLF MSK system, which is a ‘Mission Critical System’ (A system that directly supports or escalates command, control or intelligence functions essential for the successful execution of the operational mission). It is particularly vital for dissemination of Water Space Management (WSM) and Prevention of Mutual Interference (PMI) information.
- 1.1.4 The purpose is to replace the Broadcast Control Authority portion of the NATO VLF MSK broadcast system with modern and upgradeable equipment. The current system was implemented in 2002 and is experiencing regular and prolonged failures which is impacting on HQ MARCOM’s ability to provide safe Command and Control of NATO assigned submarines. Many items of hardware are obsolete or difficult to procure and are only provided with short warranty periods (30 days). The software is only compatible with outdated versions of Microsoft Windows and therefore also needs to be replaced.
- 1.1.5 This project will incorporate the main HQ MARCOM site located at Northwood, GBR and the alternate site at Whitehall, GBR referred to forthwith as HQ MARCOM sites.

1.2 Overview of the Prospective Contract

- 1.2.1 The Prospective Contract (Book II) requires the selected Contractor to deliver the NATO VLF MSK broadcast system and associated services. The Contractor shall perform all activities required as per Book II Part IV (Statement of Work – SOW) and shall deliver the associated deliverables as per Book II Part I (Schedule of Supplies and Services – SSS). The Contractor’s work encompass the activities described in the SSS and SOW. Final System Acceptance (FSA) for the contract is scheduled for 53 Weeks after Effective Date of Contract (EDC).

1.2.2 The Contract will be governed by Book II, Part II (General Provisions - GP), and Part III (Contract Special Provisions - CSP).

1.3 Governing Rules, Eligibility, and Exclusion Provisions

1.3.1 This solicitation is an Alliance Operations and Mission International Invitation for Bid (AOM IFB) and is issued in accordance with the procedures for International Competitive Bidding set forth in the NATO document AC/4-D/2261 (1996 Edition).

1.3.2 Pursuant to these procedures, bidding is restricted to companies from participating NATO member nations (see Para 2.1.1.5) for which a Declaration of Eligibility has been issued by their respective government authorities or have an existing Basic Ordering in place with the NCI Agency in which the company was nominated by their respective government authorities.

1.3.3 Lowest Price Technically Compliant Method

1.3.3.1 The evaluation method to be used in the selection of the successful Bidder under this solicitation shall follow the Non Article 5 NATO-Led Operations Alliance Operations and Missions set forth in AC/4-DS(2008)0002, and AC/4-DS(2011)0009-FINAL-AS1.. The successful bid pursuant to this IFB will be that bid which is the lowest price technically compliant in accordance with the evaluation criteria.

1.3.3.2 The bid evaluation criteria and the detailed evaluation procedures are described in Section 4.

1.3.4 This Invitation for Bid will not be the subject of a public Bid opening.

1.3.5 The Bidder shall refer to the Purchaser all queries for resolution of any conflicts found in information contained in this document in accordance with the procedures set forth in Section 2.6 "Request for IFB Clarifications".

1.4 Security

1.4.1 Contractor will be required to handle and store classified material to the level of "NATO SECRET" and the Contractor shall have the appropriate facility and personnel clearances. Should a Contractor be unable to perform the contract due to the fact that the facility clearance has not been provided by their respective national security agency, this lack of clearance cannot be the basis for a claim of adjustment or an extension of schedule, nor the lack of clearance be considered a mitigating circumstance in the case of an assessment of Liquidated Damages or a determination of Termination For Default by the Purchaser.

- 1.4.2 Contractor personnel working at NATO sites are required to possess a security clearance of "NATO SECRET". Contractor personnel without such a clearance, confirmed by the appropriate national security authority and transmitted to the cognisant NATO security officer at least fourteen (14) days prior to the site visit, will be denied access to the site. Denial of such access by the Purchaser may not be used by the Contractor as the basis for a claim of adjustment or an extension of schedule nor can the denial of access be considered a mitigating circumstance in the case of an assessment of Liquidated Damages or a determination of Termination for Default by the Purchaser. Contractor personnel who need System Administrator privileges when working on NATO SECRET systems shall be required to hold NATO CTS clearances (see SOW Section 12).
- 1.4.3 Bidders are advised that contract signature will not be delayed in order to allow the processing of security clearances for personnel or facilities and, should the otherwise successful Bidder not be in a position to accept the offered Contract within a reasonable period of time, due to the fact that its personnel or facilities do not possess the appropriate security clearance(s), the Purchaser may determine the Bidder's Offer to be non-compliant and offer the Contract to the next ranking Bidder. In such a case, the Bidder who would not sign the Contract shall be liable for forfeiture of the Bid Guarantee.

1.5 Documentation

- 1.5.1 All documentation, including the IFB itself, all applicable documents and any reference documents provided by the Purchaser are solely to be used for the purpose of preparing a response to this IFB. They are to be safeguarded at the appropriate level according to their classification and reference documents are provided "as is", without any warranty as to quality or accuracy.

2 GENERAL BIDDING INFORMATION

2.1 Definitions

2.1.1 In addition to the definitions and acronyms set in the Contract Special Provisions (Part II) of the prospective Contract, and the definitions and acronyms set in the Clause entitled "Definitions of Terms and Acronyms" of the Contract General Provisions (Part III) of the prospective Contract, the following terms and acronyms, as used in this Invitation for Bid shall have the meanings specified below:

2.1.1.1 "Bidder": a firm, consortium, or joint venture which submits an offer in response to this solicitation. Bidders are at liberty to constitute themselves into any form of Contractual arrangements or legal entity they desire, bearing in mind that in consortium-type arrangements a single judicial personality shall be established to represent that legal entity. A legal entity, such as an individual, Partnership or Corporation, herein referred to as the "Principal Contractor", shall represent all members of the consortium with the NCI Agency and/or NATO. The "Principal Contractor" shall be vested with full power and authority to act on behalf of all members of the consortium, within the prescribed powers stated in an irrevocable Power of Attorney issued to the "Principal Contractor" by all members associated with the consortium. Evidence of authority to act on behalf of the consortium by the "Principal Contractor" shall be enclosed and sent with the Bid. Failure to furnish proof of authority shall be a reason for the Bid being declared non-compliant.

2.1.1.2 "Compliance": strict conformity to the requirements and standards specified in this IFB and its attachments.

2.1.1.3 "Contractor": the awardee of this solicitation of offers, which shall be responsible for the fulfilment of the requirements established in the prospective contract.

2.1.1.4 "Firm of a Participating Country": a firm legally constituted or chartered under the laws of, and geographically located in, or falling under the jurisdiction of a Participating Country.

2.1.1.5 "Participating Country": any of the NATO nations contributing to the project, namely, (in alphabetical order): ALBANIA, BELGIUM, BULGARIA, CANADA, CROATIA, CZECH REPUBLIC, DENMARK, ESTONIA, FRANCE, GERMANY, GREECE, HUNGARY, ICELAND, ITALY, LATVIA, LITHUANIA, LUXEMBOURG, THE NETHERLANDS, NORWAY, POLAND,

PORTUGAL, ROMANIA, SLOVAKIA, SLOVENIA, SPAIN, TURKEY, THE UNITED KINGDOM and THE UNITED STATES.

2.1.1.6 “Quotation” or “Bid”: a binding offer to perform the work specified in the attached prospective Contract (Book II).

2.1.1.7 “IFB”: Invitation for Bid.

2.1.1.8 The Purchaser is defined as the current NCI Agency or its legal successor.

2.2 Eligibility and Origin of Equipment and Services

2.2.1 As stated in Section 1.3.2 above only firms from a Participating Country are eligible to engage in this competitive Bidding process.

2.2.2 In addition, all contractors, sub-contractors and manufacturers, at any tier, must be from Participating Countries.

2.2.3 None of the work, including project design, labour and services shall be performed other than by firms from and within Participating Countries.

2.2.4 No materials or items of equipment down to and including identifiable Sub-assemblies shall be manufactured or assembled by a firm other than from and within a Participating Country.

2.2.5 Unless otherwise authorised by the terms of the prospective Contract, the Intellectual Property Rights to all design documentation and related system operating software shall reside in NATO member countries, and no license fees or royalty charges shall be paid by the Contractor to firms, individuals or governments other than within the NATO member community.

2.3 Bid Delivery and Bid Closing

2.3.1 All Bids shall be in the possession of the Purchaser at the address given below in Section 2.3.2 on/or before 12.00 hours (Brussels Time) on **3 October 2016**, at which time and date Bidding shall be closed.

2.3.2 Bids shall be delivered to the following address:

2.3.2.1 By Post:

NCI Agency
ACQ/Contracting (ATTN: Mr. Joseph Vitale)
Boulevard Leopold III
1110 Brussels

Belgium

2.3.2.2 Hand Carried Service or courier:

NCI Agency
ACQ/Contracting (ATTN: Mr. Joseph Vitale)
Bâtiment Z
Avenue du Bourget 140
B-1110 Brussels
Belgium

2.3.3 Bids submitted by electronic means are not permitted and will not be considered. Bidders are advised that security or other personnel remaining on the premises outside of normal business hours may decline to sign or issue receipts for delivered items.

2.3.4 Late Bids

2.3.4.1 Bids which are delivered to the Purchaser after the specified time and date set forth above for Bid Closing are "Late Bids" and shall not be considered for award. Such Bids will be returned unopened to the Bidder at the Bidder's expense unless the Purchaser can determine that the Bid in question meets the criteria for consideration as specified below.

2.3.4.2 *Consideration of Late Bid* – The Purchaser considers that it is the responsibility of the Bidder to ensure that the Bid submission arrives by the specified Bid Closing time. Considering the number and quality of express delivery services, courier services and special services provided by the national postal systems, a late Bid shall only be considered for award under the following circumstances:

2.3.4.2.1 A contract has not already been awarded pursuant to the Invitation for Bid, and,

2.3.4.2.2 The Bid was sent to the address specified in the IFB by ordinary, registered or certified mail not later than ten (10) calendar days before the Bid closing date and the delay was due solely to the national or international postal system for which the Bidder bears no responsibility (the official postmark for ordinary and Registered Mail or the date of the receipt for Certified Mail will be used to determine the date of mailing), or,

2.3.4.2.3 The Bid was hand carried, or delivered by a private courier service and the Bidder can produce a receipt which demonstrates that the delivery was made to the correct address and received by a member of the NCI Agency and the failure to be received by the

Contracting Authority was due to mishandling within the Purchaser's organisation. Adverse weather, technical issues, traffic conditions, or circumstances of a similar nature will not be considered as grounds for acceptance of late bids.

2.3.4.3 A Late Bid which was hand-carried, or delivered by a private courier, for which a proper receipt cannot be produced, cannot be considered for award under any circumstances nor can late Bids which bear no post marks or for which documentary evidence of mailing date cannot be produced.

2.4 Requests for Extension of Bid Closing Date

2.4.1 Bidders are informed that requests for extension to the closing date for the IFB shall be submitted by the Bidder only through its respective country's NATO Delegation or Embassy to the Purchaser Point of Contact indicated in Section [2.5.1](#) below. Any request for extension shall be submitted by the respective NATO Delegation or Embassy no later than fourteen (14) calendar days prior to the established Bid closing date. Bidders are advised to submit their request in sufficient time as to allow their respective NATO Delegation or Embassy to deliver the formal request to the Purchaser within the above time limit.

2.5 Purchaser's Point of Contact

2.5.1 The Purchaser point of contact for all information concerning this Invitation for Bid is:

Mr. Joseph Vitale, Senior Contracting Officer
Acquisition
Fax: +32.2.707.87.70
E-mail: joseph.vitale@ncia.nato.int

2.5.2 All correspondence related to the IFB will be forwarded to:

NCI Agency
Boulevard Leopold III
1110 Brussels, Belgium
Acquisition Support Group
Attn: Mr. Joseph Vitale (contact details stated above).

2.6 Request for IFB Clarifications

2.6.1 Bidders, during the solicitation period, are encouraged to query and seek clarification of any matters of a contractual, administrative and technical nature pertaining to this IFB.

- 2.6.2 All questions and requests for clarification shall be forwarded to the Purchaser via email using the Clarification Request Form provided at Annex D of this Book I. Such questions shall be forwarded to the point of contact specified in Section 2.5.1 above and shall arrive not later than before half of the bidding period has passed prior to the stated "Bid Closing Date". The Purchaser is under no obligation to answer requests for clarification submitted after this time. Requests for clarification must address the totality of the concerns of the Bidder, as the Bidder will not be permitted to revisit areas of the IFB for additional clarification except as noted in Section 2.6.3, below.
- 2.6.3 Additional requests for clarification are limited only to the information provided as answers by the Purchaser to Bidder requests for clarification. Such additional requests shall arrive not later than fourteen (14) calendar days before the established Bid Closing Date.
- 2.6.4 It is the responsibility of the Bidders to ensure that all Clarification Requests submitted bear no mark, logo or any other form or sign that may lead to reveal the Bidders' identity in the language constituting the clarification itself. This prescription is not applicable to the means used for the transmission of the clarification (i.e. email or form by which the clarification is forwarded).
- 2.6.5 The Purchaser declines all responsibilities associated to any and all circumstances regardless of the nature or subject matter arising from the Bidders' failure or inability to abide to the prescription in Section 2.6.4.
- 2.6.6 The Purchaser may provide for the removal of any form of identification in the body of the clarification request in those instances in which such practice is feasible as well as providing for a re-wording of the clarification request in those cases in which the original language submitted is deemed ambiguous, unclear, subject to different interpretation or revelatory of the Bidder's identity.
- 2.6.7 Bidders are advised that subsequent questions and/or requests for clarification included in a Bid shall neither be answered nor considered for evaluation.
- 2.6.8 Except as provided above, all questions will be answered by the Purchaser and the questions and answers (but not the identity of the questioner) will be issued in writing to all prospective Bidders. The Bidders shall immediately inform the Purchaser in the event that questions posed are not reflected in the answers published.
- 2.6.9 Where the extent of the changes implied by the response to a clarification request is of such a magnitude that the Purchaser deems necessary to issue revised documentation, the Purchaser will do so

by the mean of the issuance of a formal IFB amendment pursuant to AC/4-DS-2261 and in accordance with Section [2.8](#) below.

2.6.10 The Purchaser reserves the right to reject frivolous clarification requests clearly devised or submitted for the purpose of artificially obtaining an extension of the bidding time (i.e. clarifications re-submitted using different wording where such wording does not change the essence of the clarification being requested).

2.6.11 The published responses issued by the Purchaser shall be regarded as the authoritative interpretation of the Invitation for Bid. Any amendment to the language of the IFB included in the answers will be issued as an IFB Amendment and shall be incorporated by the Bidder in his offer.

2.7 Requests for Waivers and Deviations

2.7.1 Bidders are informed that requests for alteration to, waivers or deviations from the terms and conditions of this IFB and attached Prospective Contract (Book II) will not be considered after the request for clarification process. Requests for alterations to the other requirements, terms or conditions of the Invitation for Bid or the Prospective Contract may only be considered as part of the clarification process set forth in Section [2.6](#) above. Requests for alterations to the specifications, terms and conditions of the Contract which are included in a Bid as submitted may be regarded by the Purchaser as a qualification or condition of the Bid and may be grounds for a determination of non-compliance.

2.8 Amendment of the Invitation for Bid

2.8.1 The Purchaser may revise, amend or correct the terms, conditions and/or specifications and provisions of the IFB at any time prior to the date set for the Bid Closing. Any and all modifications will be transmitted to all Bidders by an official amendment designated as such and signed by the Contracting Authority. Such amendment will be accompanied by an acknowledgement of receipt which the Bidder shall complete and enclose as part of its Bid. This process may be part of the clarification procedures set forth in Section 2.6 above or may be an independent action on the part of the Purchaser.

2.8.2 The Purchaser will consider the potential impact of amendments on the ability of prospective Bidders to prepare a proper Bid within the allotted time. The Purchaser may extend the "Bid Closing Date" at its discretion and such extension will be set forth in the amendment document.

2.8.3 All revision or amendments issued by the Purchaser shall also be acknowledged by the Bidder in its Bid by completing the

“Acknowledgement of Receipt of IFB Amendments” at Annex B-2. Failure to acknowledge receipt of all amendments may be grounds to determine the Bid to be non-compliant.

2.9 Modification and Withdrawal of Bids

2.9.1 Bids, once submitted, may be modified by Bidders, but only to the extent that the modifications are in writing, conform to the requirements of the IFB, and are received by the Purchaser prior to the exact time and date established for Bid Closing. Such modifications shall be considered as an integral part of the submitted Bid.

2.9.2 Modifications to Bids which arrive after the Bid Closing Date will be considered as "Late Modifications" and will be processed in accordance with the procedure set forth above concerning "Late Bids", except that unlike a "Late Bid", the Purchaser will retain the modification until a selection is made. A modification to a Bid which is determined to be late will not be considered in the evaluation and selection process. If the Bidder submitting the modification is determined to be the successful Bidder on the basis of the unmodified Bid, the modification may then be opened. If the modification makes the terms of the Bid more favourable to the Purchaser, the modified Bid may be used as the basis of contract award. The Purchaser, however, reserves the right to award a contract to the apparent successful Bidder on the basis of the Bid submitted and disregard the late modification.

2.9.3 A Bidder may withdraw its Bid at any time prior to Bid Opening without penalty. In order to do so, an authorised agent or employee of the Bidder must provide an original statement of the firm's decision to withdraw the Bid and remove the Bid from the Purchaser's premises.

2.9.4 Except as provided in Section 2.10.4.2 below, a Bidder may withdraw its Bid after Bid Opening only by forfeiture of the Bid Guarantee.

2.10 Bid Validity

2.10.1 Bidders shall be bound by the term of their Bids for a period of twelve (12) months starting from the Bid Closing Date specified in Section 2.3.1 above.

2.10.2 In order to comply with this requirement, the Bidder shall complete the Certificate of Bid Validity set forth in **Annex B-4**. Bids offering less than the period of time referred to above for acceptance by the Purchaser may be determined to be non-compliant.

- 2.10.3 The Purchaser will endeavour to complete the evaluation and make an award within the period referred to above. However, should that period of time prove insufficient to render an award, the Purchaser reserves the right to request an extension of the period of validity of all Bids which remain under consideration for award.
- 2.10.4 Upon notification by the Purchaser of such a request for a time extension, the Bidders shall have the right to:
- 2.10.4.1 accept this extension of time in which case Bidders shall be bound by the terms of their offer for the extended period of time and the Bid Guarantee and Certificate of Bid Validity extended accordingly; or
 - 2.10.4.2 refuse this extension of time and withdraw the Bid, in which case the Purchaser will return to the Bidder its Bid Guarantee in the full amount without penalty.
- 2.10.5 Bidders shall not have the right to modify their Bids due to a Purchaser request for extension of the Bid validity unless expressly stated in such request.

2.11 Bid Guarantee

- 2.11.1 The Bidder shall furnish with its Bid a guarantee in an amount equal to one Hundred Thousand Euro (€100,000). The Bid Guarantee shall be substantially similar to Annex C as an irrevocable, unqualified and unconditional Standby Letter of Credit (SLC) issued by a Belgian banking institution fully governed by Belgian legislation or issued by a non-Belgian financial institution and confirmed by a Belgian banking institution fully governed by Belgian legislation. In the latter case signed original letters from both the issuing institution and the confirming institution must be provided. The confirming Belgian bank shall clearly state that it will guarantee the funds, the drawing against can be made by the NCI Agency at its premises in Belgium. Bid Guarantees shall be made payable to the Treasurer, NCI Agency.
- 2.11.2 Alternatively, a Bidder may elect to post the required Guarantee by certified cheque. If the latter method is selected, Bidders are informed that the Purchaser will cash the cheque on the Bid Closing Date.
- 2.11.3 If the Bid Closing Date is extended after a Bidder's financial institution has issued a Bid Guarantee, it is the obligation of the Bidder to have such Bid Guarantee (and confirmation, as applicable) extended to reflect the revised Bid Validity date occasioned by such extension.

- 2.11.4 Failure to furnish the required Bid Guarantee in the proper amount, and in the proper form and for the appropriate duration by the Bid Closing Date may be cause for the Bid to be determined non-compliant.
- 2.11.5 In the event that a Bid Guarantee is submitted directly by a banking institution, the Bidder shall furnish a copy of said document in the Bid Administration Package.
- 2.11.6 The Purchaser will make withdrawals against the amount stipulated in the Bid Guarantee under the following conditions:
- 2.11.6.1 The Bidder has submitted a bid and, after Bid Closing Date (including extensions thereto) and prior to the selection the compliant bid, withdraws its Bid, or states that he does not consider its bid valid or agree to be bound by its bid;
- 2.11.6.2 The Bidder has submitted a compliant bid, but the Bidder declines to sign the contract offered by the Agency, such contract being consistent with the terms of the Invitation for Bid;
- 2.11.6.3 The Purchaser has offered the Bidder the contract for execution but the Bidder has been unable to demonstrate compliance with the security requirements of the contract within a reasonable time; or
- 2.11.6.4 The Purchaser has entered into the contract with the Bidder but the Bidder has been unable or unwilling to provide the Performance Guarantee required under the terms of the contract within the time frame required.
- 2.11.7 Bid Guarantees will be returned to Bidders as follows:
- 2.11.7.1 To non-compliant Bidders forty-five (45) days after notification by the Purchaser of a non-compliant Bid (except where such determination is challenged by the Bidder; in which case the Bid Guarantee will be returned forty-five (45) days after a final determination of non-compliance);
- 2.11.7.2 To all other unsuccessful Bidders within thirty (30) days following the award of the contract to the successful Bidder;
- 2.11.7.3 To the successful Bidder upon submission of the Performance Guarantee required by the Contract or, if there is no requirement for such a Performance Guarantee, upon contract execution by both parties;
- 2.11.7.4 Pursuant to Section 2.10.4.2 above:

2.11.8 "Standby Letter of Credit" or "SLC" as used herein, means a written commitment by a Belgian financial institution either on its own behalf or as a confirmation of the Standby Letter of Credit issued by a non-Belgian bank to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Purchaser of a written demand therefore. Neither the financial institution nor the Contractor can revoke or condition the Standby Letter of Credit. The term "Belgian financial institution" includes non-Belgian financial institutions licensed to operate in Belgium.

2.12 Cancellation of Invitation for Bid

2.12.1 The Purchaser may cancel, suspend or withdraw for re-issue at a later date this IFB at any time prior to contract award. No legal liability on the part of the Purchaser for payment of any sort shall arise and in no event will any Bidder have cause for action against the Purchaser for the recovery of costs incurred in connection with preparation and submission of a Bid in response to this IFB.

2.13 Electronic Transmission of Information and Data

2.13.1 The Purchaser will endeavour to communicate answers to requests for clarification and amendments to this IFB to the prospective Bidders as soon as practicable.

2.13.2 Bidders are cautioned that the Purchaser, when permissible under security classifications, will rely exclusively on electronic mail or portal communication to manage all correspondence related to this IFB, including IFB amendments and clarifications.

2.14 Supplemental Agreements

2.14.1 Bidders are required, in accordance with the certificate at **Annex B-7** of these Instructions to Bidders, to disclose any prospective Supplemental Agreements that are required by national governments to be executed by NATO/NCI Agency or successor organisations as a condition of contract performance.

2.14.2 Supplemental Agreements are typically associated with, but not necessarily limited to, national export control regulations, technology transfer restrictions and end user agreements or undertakings.

2.14.3 Bidders are cautioned that failure to provide full disclosure of the anticipated requirements and the terms thereof, to the best of the Bidder's knowledge and experience, may result in the Purchaser withholding award of the contract or cancelling an executed contract if it is discovered that the terms of such Supplemental Agreements contradict salient conditions of the Prospective Contract to the extent

that either key objectives cannot be accomplished or basic contract principles and Purchaser rights have been abridged.

2.15 Notice of Limitations on Use of Intellectual Property Delivered to the Purchaser

2.15.1 Bidders are instructed to review Clauses 8 and 9 of the Contract Special Provisions and Clause 30 of the Contract General Provisions set forth Parts II and III of Book II herein. These Clauses sets forth the definitions, terms and conditions regarding the rights of the Parties concerning Intellectual Property developed and/or delivered under this contract or used as a basis of development under this contract.

2.15.2 Bidders are required to disclose, in accordance with Annex B-10 and Annex B-11, the Intellectual Property proposed to be used by the Bidder that will be delivered with either Background Intellectual Property Rights or Third Party Intellectual Property Rights. Bidders are required to identify such Intellectual Property and the basis on which the claim of Background or Third Party Intellectual Property is made.

2.15.3 Bidders are further required to identify any restrictions on Purchaser use of the Intellectual Property that is not in accordance with the definitions and rights set forth in the provisions of the Book II prospective Contract concerning use or dissemination of such Intellectual Property.

2.15.4 Bidders are reminded that restrictions on use or dissemination of Intellectual Property conflicting with the Book II terms and conditions or with the objectives and purposes of the Purchaser as stated in the Prospective Contract shall result in a determination of non-compliant bid.

2.16 Mandatory Quality Assurance and Quality Control Standards

2.16.1 Bidders are requested to note that, in accordance with the Certificate at Annex B-8 hereto, Bidders shall provide documentary evidence that the Bidder possesses a current certification that is compliant with the requirements of Allied Quality Assurance Publication (AQAP) 2110, ISO 9001:2008, or an equivalent QA/QC regime.

2.16.2 Bidders shall further demonstrate that such regime is applied within the Bidder's internal organisation, as well as extended to its relationships with Subcontractors.

2.16.3 If the Bidder is offering a QA/QC regime that is claimed to be equivalent to AQAP 2110 or ISO 9001:2008, the burden of proof of such equivalency shall

be on the Bidder and such evidence of equivalency shall be submitted with the Certificate at Annex B-8 in the Bid Administration Package.

- 2.16.4 Failure to execute this Certificate, or failure to provide documentary evidence of compliance with this requirement may result in a determination of non-compliance for the submitted Bid.

3 BID PREPARATION INSTRUCTIONS

3.1 General

- 3.1.1 Bidders shall prepare and submit their Bid in accordance with the requirements and format set forth in this IFB. Compliance with all bid submission requirements is mandatory. Failure to submit a bid in conformance with the stated requirements may result in a determination of non-compliance by the Purchaser and the elimination of the bid from further consideration.
- 3.1.2 Bidders shall not simply restate the IFB requirements. A Bid shall demonstrate that the Bidder understands the terms, conditions and requirements of the IFB and shall demonstrate the Bidder's ability to provide all the services and deliverables listed in the Schedules of the prospective Contract. Bidders shall take good note of Para 4.1.4 below in this regard.
- 3.1.3 Bidders are informed that the quality, thoroughness and clarity of the bid will affect the overall evaluation of the bid. Although the Purchaser may request clarification of the bid, it is not required to do so and may make its determination on the content of the bid as written. Therefore, Bidders shall assume that inconsistencies, omissions, errors, lack of detail and other qualitative deficiencies in the submitted bid will have a negative impact.
- 3.1.4 Partial Bids and/or bids containing conditional statements will be declared non-compliant.
- 3.1.5 Bidders are advised that the Purchaser reserves the right to incorporate the successful Bidder's Offer in whole or in part by reference in the resulting contract.
- 3.1.6 If no specific format has been established for electronic versions, Bidders shall deliver documentation in an electronic format which is best suited for review and maintenance by the Purchaser (e.g., Project Master Schedule in MS Project format, Project Highlight Reports in MS Word).
- 3.1.7 All documentation submitted as part of the Bid shall be classified no higher than "NATO RESTRICTED".

3.2 Bid Package Content

- 3.2.1 The complete Bid shall consist of three distinct and separated parts described in the following subparagraphs. Detailed requirements for the structure and content of each of these packages are contained in these Bidding Instructions.

- 3.2.2 The Bid Administration Package, containing one (1) hard copy and one (1) soft copy of the documents specified in Section 3.4 below.
- 3.2.3 The Price Quotation Envelope, containing one (1) paper copy, one (1) Original and two (2) CD ROMs or DVDs) soft copy in MS Excel format of the Price Quotation specified in Section 3.5. The soft copy shall be in MS Excel format which can be manipulated i.e. not an image and be the full and complete price proposal including the CLIN (Contract Line Item Number) Price breakdown sheets.
- 3.2.4 The Technical Proposal Package consisting of three (3) volumes as specified below. Each Volume shall be in a separate binder or file for ease of segregation and handling and shall each be submitted in one (1) hard copy and three (3) soft copies.
 - 3.2.4.1 Volume 1 – Corporate Organisation / Capital Facilities
 - 3.2.4.2 Volume 2 – Corporate Experience
 - 3.2.4.3 Volume 3 – Preliminary Project Implementation Plan (PIP)
 - 3.2.4.4 Bidding instructions describing the expected contents of each of the three (3) volumes constituting the Technical Proposal Package are in Section 3.6 of this document. Advice to Bidders on how the Purchaser plans to conduct the technical evaluation of each of the three (3) volumes is contained in Section 4.5 of this document.

3.3 Package Marking

- 3.3.1 The separate parts of the bid shall be placed in outer containers for delivery. All outer containers into which bidding documents are placed shall be opaque or wrapped in opaque paper, sealed and identified with the following markings:
 - 3.3.1.1 SEALED BID IFB-CO-14311-BCA
 - 3.3.1.2 BOX X of Y (1 of 3, 2 of 3, etc.)
 - 3.3.1.3 NOTIFY Mr. Joseph Vitale (Ext. 8321) UPON RECEIPT
- 3.3.2 Each of the bid parts placed in the outer container(s) shall be separately wrapped (multiple copies of the same document may be wrapped together), and marked as follows:
 - 3.3.2.1 Name and address of the Bidder, and

3.3.2.2 The words "SEALED BID" followed by the reference "IFB-CO-14311-BCA"; and the appropriate package marking (i.e., Administration Documentation, Price Proposal etc.).

3.4 Administrative Documentation Package

3.4.1 The Package must include the original of the Bid Guarantee required by Section 2.11 of the Bidding Instructions. If the Bid Guarantee is sent to the Purchaser directly from the Bidder's bank, a letter, in lieu of the actual Guarantee, shall be included specifying the details of the transmittal. Bidders are reminded that the Bid Guarantee shall reflect any extensions to the Bid Validity Date due to extensions in the Bid Closing Date.

3.4.2 The Package shall include the Certificates set forth in Annex B to these Bidding Instructions, signed in the original by an authorised representative of the Bidder. The Certificates are as follows:

3.4.2.1 Annex B-1 (Certificate of Legal Name of Bidder);

3.4.2.2 Annex B-2 (Acknowledgement of Receipt of IFB Amendments);

3.4.2.3 Annex B-3 (Certificate of Independent Determination);

3.4.2.4 Annex B-4 (Certificate of Bid Validity);

3.4.2.5 Annex B-5 (Certificate of Exclusion of Taxes, Duties and Charges);

3.4.2.6 Annex B-6 (Comprehension and Acceptance of Contract Special and General Provisions);

3.4.2.7 Annex B-7 (Disclosure of Requirements for NCI Agency Execution of Supplemental Agreements) with the prospective text of such Agreements, as applicable;

3.4.2.8 Annex B-8 (Certificate of Compliance AQAP 2110 or ISO 9001:2008 or Equivalent), with a copy of the relevant quality certification attached to it;

3.4.2.9 Annex B-9 (List of Prospective Major Subcontractors);

3.4.2.10 Annex B-10 (Bidder Background IPR);

3.4.2.11 Annex B-11 (List of Subcontractor IPR);

3.4.2.12 Annex B-12 (Certificate of Origin of Equipment, Services, and Intellectual Property);

3.4.2.13 Annex B-13 (List of Proposed Key Personnel);

3.4.3 In accordance with Section 3.2.2, the administrative package shall include a hard copy and a CD-ROM/or DVD containing an electronic version of the documentation stated in Sections 3.4.2.1 through 3.4.2.16 above.

3.5 Price Quotation

3.5.1 Package Contents

3.5.1.1 This envelope must contain the following documentation and media in the quantities provided in Section 3.2.3:

3.5.1.1.1 Annex A-1 "Bidding Sheets" and, as an annex, the complete set of sheets contained in the electronic file number "2" ("2_IFB-CO-14311-BCA Book I Annex A Bidding Sheets.xlsx") issued as part of this IFB; and

3.5.1.1.2 CD or DVDs (two (2) copies) each containing an electronic version, in MS Excel, of the documentation stated in Section 3.5.1.1.1 above.

3.5.2 General Rules

3.5.2.1 Bidders shall prepare their Price Quotation by completing the Bidding Sheets referred in Section 3.5.1.1.1 above, in accordance with the instructions specified in Book I Annex A-2.

3.5.2.2 The structure of the Bidding Sheets shall not be changed, other than as indicated elsewhere, nor should any quantity or item description in the Bidding Sheets. The currency(ies) of each Contract Line Item and sub-item shall be shown. The prices provided shall be intended as the comprehensive total price offered for the fulfilment of all requirements as expressed in the IFB documentation including but not limited to those expressed in the SOW.

3.5.2.3 When completing the Bidding Sheets the Bidder shall insert information in all yellow/white cells of the Bidding Sheets and complete the Pricing Summary as instructed. A price for each specified element needs to be supplied on each CLIN. Prices should not be grouped. The prices and quantities entered on the document shall reflect the total items required to meet the contractual requirements. The total price shall be indicated in the appropriate columns and in the currency quoted. If the price of a line item is expressed in different currencies, these shall be identified, and there shall be as many totals on that line item as there are currencies. In preparing the Price Quotation, Bidders

shall ensure that the prices of the Sub-items total the price of the major item of which they constitute a part.

- 3.5.2.4 Bidders shall furnish Firm Fixed Prices for all required items in accordance with the format set forth in the Instructions for preparation of the Bidding Sheets.
- 3.5.2.5 Bidders shall furnish Firm Fixed Prices for all CLINs as defined in the SOW. Purchaser evaluation of the submitted bids will be on the basis of the complete submission including administrative, price and technical components for all CLINs. The Contract will be awarded for CLINs 1 thru 6. CLIN 7 is an unevaluated option.
- 3.5.2.6 Offered prices shall not be "conditional" in nature. Any comments supplied in the Bidding Sheets or in any part of the bid package which are conditional in nature, relative to the offered prices may result in a determination that the bid is non-compliant.
- 3.5.2.7 Bidders are responsible for the accuracy of their Price Quotations. Price Quotations that have apparent computational errors may have such errors resolved in the Purchaser's favour or, in the case of gross omissions, inconsistencies or errors, may be determined to be non-compliant. In the case of inconsistencies between the electronic version of the Bidding Sheets and the paper "hard copy" of the Bidding Sheets, the "hard copy" will be considered by the Purchaser to have precedence over the electronic version.
- 3.5.2.8 Bidders shall quote in their own national currency or in EURO. Bidders may also submit bids in multiple currencies including other NATO member states' currencies under the following conditions:
- 3.5.2.8.1 The currency is of a "participating country" in the project; and
- 3.5.2.8.2 The Bidder can demonstrate, either through sub-contract arrangements or in its proposed work methodology, that it will have equivalent expenses in that currency. All major subcontracts and their approximate anticipated value should be listed on a separate sheet and included with the Price Quotation.
- 3.5.2.9 The Purchaser, by virtue of his status under the terms of Article IX and X of the Ottawa Agreement, is exempt from all direct and indirect taxes (incl. VAT) and all customs duties on merchandise imported or exported.
- 3.5.2.10 Bidders shall therefore exclude from their price Bid all taxes, duties and customs charges from which the Purchaser is exempted by international agreement and are required to certify

that they have done so through execution of the Certificate at Annex B-5.

3.5.2.11 Unless otherwise specified in the instructions for the preparation of Bidding Sheets in Annex A-1, all prices quoted in the proposal shall be on the basis that all deliverable items shall be delivered "Delivery Duty Paid (DDP)" in accordance with the International Chamber of Commerce INCOTERMS ® 2010.

3.5.2.12 The Bidder's attention is directed to the fact that Price Quotation shall contain no document and/or information other than the priced copies of the Bidding Sheets. Any other document will not be considered for evaluation.

3.5.2.13 All prices bid shall be clearly traceable in the detailed bidding sheets.

3.5.2.14 Any adjustment or discount to prices should be clearly traceable to the lowest level of breakdown in the bidding sheets and should not be aggregated or summed. Any lack of clarity or traceability may render the bid non-compliant.

3.5.2.15 The Bidder understands that there is no obligation under this contract for the Purchaser to exercise any of the optional line items and that the Purchaser bears no liability should it decide not to exercise the options (totally or partially). Further, the Purchaser reserves the right to order another Contractor (or the same), to perform the tasks described in the optional line items of the current contract through a new contract with other conditions.

3.6 Technical Proposal Package

3.6.1 It is of the utmost importance that Bidders respond to all of the technical requirements of the Purchaser Statement of Work (including all Annexes) and all the bidding instructions, not only with an affirmation of compliance but also with an explanation of how each requirement will be met. To facilitate bidding and the subsequent evaluation of the Bidder's response to the various sections of the Statement of Work (including all Annexes), bids shall be organised and submitted as follows:

3.6.1.1 Table of Contents

3.6.1.2 Executive Summary

3.6.1.3 Volume 1 – Corporate Organisation/ Capital Facilities

3.6.1.4 Volume 2 – Corporate Experience

3.6.1.5 Volume 3 – Preliminary Project Implementation Plan (PIP) to include the following sections:

- i. PIP Section 1 Project Management (PM) and Control
- ii. PIP Section 2 System Engineering and Design
- iii. PIP Section 3 Quality Assurance (QA)
- iv. PIP Section 4 Configuration Management (CM)
- v. PIP Section 5 Integrated Logistics Support (ILS)
- vi. PIP Section 6 Test and Evaluation
- vii. PIP Section 7 Documentation
- viii. PIP Section 8 System Acceptance
- ix. PIP Section 9 Training
- x. PIP Section 10 Reliability, Availability, Maintainability and Testability (RAMT)
- xi. PIP Section 11 Security Accreditation
- xii. PIP Section 12 Risk Assessment and Management
- xiii. PIP Section 13 Site Installation

3.6.2 Bidders shall include only material relating to the Table of Contents, Executive Summary and the volumes 1 through 3 above in the Technical Proposal. Additional materials such as brochures, sales literature, product endorsements and unrelated technical or descriptive narratives shall not be included in the Technical Proposal. These materials may be included in a separate volume but must not be labelled as the Technical Proposal.

3.6.3 Table of Contents: Bidder shall demonstrate a detailed understanding of the technical requirements. Bidders shall compile a detailed Table of Contents that lists not only the Section Headings but also the major sub-sections, and topic headings required set forth in these Instructions or implicit in the organisation of the Technical Proposal.

3.6.4 Technical Proposal Cross-Reference (Requirement Traceability) Table (BOOK I Annex C): The Bidder shall confirm that he accepts and will perform the requirements described in the Statement of

Work, if awarded the Contract, by completing and submitting the Cross Reference/ Compliance Table as detailed in Annex C. The Bidder shall complete Column three (3) (Bid Reference) of the Table, citing the appropriate section of the Technical Proposal that corresponds to each paragraph of these Instructions for the Preparation of the Technical Proposal that describes how the respective requirements will be met. The completed Table serves as an index for the Purchaser's Technical Evaluation Panel and also as an aide memoire to the Bidder to ensure that all the required information has been provided in the Technical Proposal.

3.6.4.1 The Bidder shall provide as an introduction to this Section, a Cross-Reference (Requirement Traceability) Matrix that lists sequentially, by every paragraph in Statement of Work (SOW) and all Annexes of the SOW of the Prospective Contract, each specified System Requirement Specification of the BCA Replacement Systems and matches that stated System Requirement with the location of the corresponding information in the preliminary design as prepared by the Bidder.

3.6.5 Executive Summary: Bidders shall provide an overview of the salient features of their technical proposal in the form of an executive summary.

3.6.5.1 This summary shall provide general description of the major points contained in each of the required sections of the Technical Proposal and shall demonstrate the Bidder's comprehension of the project systems, their constraints, implementation environment and the problems and risks of project implementation.

3.6.5.2 The Bidder shall discuss not only how the proposal meets the requirements but also how the Bidder intends to overcome the problems and mitigate the risks.

3.6.6 Volume 1 – Corporate Organisation/Capital Facilities

3.6.6.1 This section shall describe the Corporate Structure and organization of the Prime Contractor and the administration of the prospective BCA Replacement Systems Contract within the overall corporate structure. This section shall indicate the chain of authority within the Prime Contractor's organisation from the Project Manager to the Chief Executive Officer.

3.6.6.2 The Bidder shall describe the corporate resources (with posts or names) that are available to support the BCA Replacement Systems Contract that are resident in the organisation of the

Prime Contractor but not directly under the authority of the Project Manager.

- 3.6.6.3 The Bidder shall describe the process by which the Project Manager may have access to these “in-house” corporate resources and what level of authority is required in the Corporation hierarchy to secure the needed resources.
- 3.6.6.4 The Bidder shall provide evidence that the Proposed Project Manager and the Deputy Project Manager (where applicable) are experienced senior personnel with demonstrated capability in managing an acquisition programme of this magnitude. The positions shall have sufficient inherent authority and visibility in the overall corporate structure to properly execute the decisions that will be required to be made in the successful implementation of a project of this size and complexity.
- 3.6.6.5 The Bidder shall describe the responsibilities of its Project Management Office (PMO) and describe the associated staffing and resources.
- 3.6.6.6 The Bidder shall identify his major proposed prospective sub-Contractors for the BCA Replacement Systems, in compliance with Book I Annex B-9. The Bidder shall also submit a detailed and thorough subcontracting plan that identifies subcontractors/sub-vendors and their areas of responsibility/delivery. The plan shall also demonstrate that the prospective sub-contractor(s) will agree to abide by the requirements of the prime contract.
- 3.6.6.7 The Bidder shall include a draft copy of the proposed sub-Contract and a summary of the supplies and or/services to be furnished by the prospective sub-contractor. The Bidder shall include a letter of intent from the proposed sub-Contractor that details its willingness to enter into a sub-Contract with the Bidder if the Bidder shall receive award of the BCA Replacement Systems Contract.
- 3.6.6.8 With regard to major sub-Contracts, the Bidder shall identify those items that are sub-Contracted (assemblies and sub-assemblies) and that are considered to be on the “Critical Path” to meeting the delivery schedule of the Contract.
- 3.6.6.9 For these sub-Contracted items, the Bidder shall provide a rationale for the selection of the sub-Contracted vendor, and an analysis of the vendor. The Bidder shall provide a description of possible alternative sources of supply should the selected sub-

Contractor fail to deliver the required items within the time schedule.

3.6.6.10 The Bidder shall provide a sub-section that identifies the items (assemblies, sub-assemblies) and services that are to be fabricated and/or performed by the corporate resources of the Prime Contractor.

3.6.6.11 The Bidder shall identify the location of the production facilities which will be utilized, and/or the source within the corporate organisation of the services and expertise required.

3.6.6.12 The Bidder shall show existing capital assets and provide a detailed proposal of what additional equipment or facilities that will be acquired or constructed in order to meet the Contract schedule.

3.6.6.13 The Bidder shall further provide a description of any retooling efforts required and a time forecast of when these efforts can be completed.

3.6.6.14 The Bidder shall describe the distribution, warehousing, or order-processing capabilities the Bidder has that enables it to provide efficient and prompt delivery of hardware in satisfaction of short-notice or unpredictable customer orders.

3.6.7 Volume 2: Corporate Experience

3.6.7.1 The Bidder shall detail his experience in the design, development, fabrication, installation, maintenance and support of Defence Communication and Information (CIS) Systems.

3.6.7.2 The Bidder shall detail his experience over the last three (3) years in the design, manufacture and installation of CIS defence systems in general.

3.6.7.3 The Bidder shall detail his experience of the Bidder over the last three (3) years in the maintenance and support of similarly sized CIS Systems.

3.6.7.4 The Bidder shall detail his experience in delivery of a defence system as offered in its proposal that has been delivered and accepted within the last three (3) years, or that the Bidder is currently under Contract to deliver such system.

3.6.7.5 The Bidder shall demonstrate that its sub-contracted source(s) for critical items have the same level of experience for their respective areas of expertise as is required of the Prime Contractor. Corporate experience encompasses sub-contractors.

- 3.6.7.6 The Bidder shall describe its experience and expertise in providing warranty support and repair-and-replacement service for similar CIS systems for large, geographically-dispersed organisations.
- 3.6.7.7 The bidder shall confirm his and his subcontractor's experience in providing the implementation + Warranty demonstrating examples of work performed for either other NATO or National Contracts.
- 3.6.7.8 Individual skill and experience: The Bidder shall provide resumes of the proposed individuals to perform the technical tasks under the proposed Work Packages and the resumes of the individuals designated as Key Personnel in Annex B-13.
- 3.6.8 Volume 3: Preliminary Project Implementation Plan (PIP):
- 3.6.8.1 The Preliminary PIP shall provide detailed descriptions of how the proposed design will meet each of the specific requirements of the IFB.
- 3.6.8.2 PIP Section 1: Project Management and Control Plan (PMCP)
- 3.6.8.2.1 The Bidder shall develop a preliminary Project Management and Control Plan (PMCP) in accordance with Statement of Work (SOW) paragraph 2.3.of the Prospective Contract. This plan shall identify the significant tasks required to be accomplished and the items to be delivered in the execution of the Contract. The Plan will centre on a preliminary Project Work Breakdown Structure (PWBS) and supporting charts in accordance with SOW paragraph 2.3 of the Prospective Contract.
- 3.6.8.2.2 The Contractor shall also develop a preliminary Project Master Schedule (PMS) in accordance with SOW paragraph 2.3 of the Prospective Contract that shall contain all Contract events and milestones.
- 3.6.8.2.3 The Bidder shall demonstrate the realism of approach to accomplish the work within the time schedule defined in the IFB.
- 3.6.8.2.4 In PMS, the relationship between the Work Packages and project deliverables shall be clearly demonstrated as well as the schedule of sub-contracted performance.
- 3.6.8.2.5 This preliminary PMCP shall also consider all aspects of project management and control and shall demonstrate how all the critical milestones defined in the BOOK II Part I Section 2 will be met.

- 3.6.8.2.6 The Bidder shall not alter or amend the dates for Milestones (BOOK II Part I).
- 3.6.8.2.7 The Bidder shall demonstrate the realism of approach to accomplish the work within the time schedule defined in the IFB. The dates set forth in BOOK II Part I shall be fully supported and coherent by/with the Gantt/PERT diagrams as well as the PWBS.
- 3.6.8.2.8 The Bidder shall demonstrate that he has taken into account the constraints of the implementation environment and reflect this understanding in his draft preliminary Project Management and Control Plan.
- 3.6.8.2.9 The Bidder shall describe the Bidder's approach to supporting the monthly Project Review Meetings.

3.6.8.3 PIP Section 2: System Engineering and Design

- 3.6.8.3.1 In this Section, the Bidder shall submit a preliminary System Engineering and Design Plan, including a preliminary System Safety Engineering Plan as a sub-plan, describing the preliminary design of the proposed System.
- 3.6.8.3.2 The Bidder shall support his design with such information as to convincingly demonstrate that the proposed design will meet the safety and security requirements as set forth in SOW Section 4 and Section 5 of the Prospective Contract as well as functional and technical requirements as set forth in SOW Annex A, and Annex-B of the Prospective Contract.
- 3.6.8.3.3 The Preliminary System Engineering and Design Plans shall provide detailed descriptions of how the proposed designs of the projects shall meet each of the specific performance requirements/parameters.
- 3.6.8.3.4 The bidders shall take into account the constraints of the site(s) and number of simultaneous transmissions, as well EMC, in his technical proposal.
- 3.6.8.3.5 The Preliminary System Engineering and Design Plans shall demonstrate that the system as delivered will meet the safety and security requirements.
- 3.6.8.3.6 The Bidder shall describe the Bidder's approach to preparing and maintaining the Engineering Documentation Package.
- 3.6.8.3.7 The Bidder shall provide equipment specification for each capability separately as specified at Book I paragraph 4.4.6.2.6.
- 3.6.8.3.8 The Bidder shall furnish drawings, diagrams and specifications.

- 3.6.8.3.9 The Bidder shall provide predicted performance characteristics and specifications based on engineering analysis and/or extrapolations from previous data.
- 3.6.8.3.10 Bidder shall provide assurance that they understand both the requirements and viable methods for attaining accreditation for their solution in accordance with SOW Section 5 and SOW Annex-A. Failure to provide detailed technical information of these sensitive bidding requirements or omission of any critical information may result in a determination of non-compliance for the entire Bid.
- 3.6.8.3.11 The Bidder shall agree to abide by and implement the security mechanism as defined in the NATO Security Policy and supporting directives as per the IFB references.
- 3.6.8.3.12 The Bidder shall propose automated tools to process classified data and information that shall meet the respective performance and security requirements as stated at Section 5 of the SOW.
- 3.6.8.3.13 This Section (security related) shall be submitted as a self-contained volume or volumes of the Technical Proposal and shall be segregated from the other materials insofar as the nature of the responses will be subject to Security Classification.
- 3.6.8.3.14 The Bidder shall demonstrate and confirm that the hardware to be procured in accordance with this IFB meets the hardware specifications as defined in SOW Annex-A and SOW Annex-B.
- 3.6.8.3.15 The Bidder shall describe the Bidder's Risk Assessment including proposing any appropriate change requests against the Functional Baseline.

3.6.8.4 PIP Section 3: Quality Assurance (QA)

- 3.6.8.4.1 The Bidder shall provide information sufficient to demonstrate that the Quality Assurance and Quality Control (QA/QC) Programme meets the requirements of the Prospective Contract. The Bidder shall provide certification confirming that the Quality Programme meets the equivalent national and/or international standards.
- 3.6.8.4.2 The Bidder shall also describe the QA/QC organisation of his Company and the position it occupies within the management structure of the Company. This shall include the proposed overall QA Manager as well as detailing how the Software, Hardware and Documentation aspects of QA Management shall be exercised.
- 3.6.8.4.3 The proposed Quality Assurance / Quality Control Plan shall show how procedures are developed, implemented and maintained to adequately control the design, integration, production, purchasing, installation,

inspection, testing, configuration management and customer support of all services and all products (both management products and specialist products), in accordance with the requirements of this Contract.

- 3.6.8.4.4 The proposed QA/QC Plan shall describe the quality criteria that will be applied to each of the deliverables under this contract (i.e. the documentation as well as the system and all of its components).
- 3.6.8.4.5 The proposed QA/QC Plan shall describe the Bidder's internal process for the quality review of the deliverables before their release to the Purchaser.
- 3.6.8.4.6 The proposed Quality Plan shall describe how all necessary assistance shall be provided to the Quality Assurance Representative, and how quality records for the prime and any Sub-contractors or consortium members shall be made available for evaluation.
- 3.6.8.4.7 The Bidder shall clearly indicate the Quality-related activities, responsibilities, and controls for the prime and any Sub-contractors and shall state how he intends to ensure compliance of his prospective sub-Contractors and, as applicable, of the prospective suppliers of Commercial-Off-The-Shelf (COTS) equipment with QA/QC requirements of the SOW of the Prospective Contract.

3.6.8.5 PIP Section 4: Configuration Management

- 3.6.8.5.1 The Bidder shall provide a preliminary version of the Bidder's Configuration Management (CM) Plan for BCA Replacement in accordance with SOW Section 7 of the Prospective Contract that shall detail the processes, methods and procedures that would be used to implement the requirements as set forth in the SOW of the Prospective Contract.
- 3.6.8.5.2 The Bidder shall outline how he adopts the Configuration Management processes and deliverables to the scope of this contract as requested in the SOW Section 7.
- 3.6.8.5.3 The Bidder shall demonstrate that the various baselines referred under SOW Section 7 will be established using automated tools.
- 3.6.8.5.4 In addition, the Bidder shall demonstrate that a Configuration Status Accounting (CSA) database will be maintained using software tools during the Contract.
- 3.6.8.5.5 The Bidder shall describe the Bidder's approach to conduct the Physical Configuration Audit for each site, including the verification of delivered configuration items against the Product Baseline.

3.6.8.5.6 The Bidder shall provide, as part of the CM Plan, A project specific, Configuration Control process description; an initial set of project specific Configuration Item selection criteria for the capabilities; an initial set of project specific Configuration Items (CI) including their attributes and relationships among each other for the Capabilities.

3.6.8.6 PIP Section 5: Integrated Logistics Support

3.6.8.6.1 The Bidder shall provide a high level description of the proposed Integrated Logistics Support Plan. This plan shall cover the requirements of the Prospective Contract as set forth in Section 8 of the Statement of Work.

3.6.8.6.2 The Bidder shall describe its approach to the BCA Replacement system maintenance and Supply Support for both hardware and software and shall describe how it will meet the requirements in accordance with SOW paragraph 8.1 to 8.13 of the SOW of the Prospective Contract. The Bidder shall describe the proposed spares provisioning methodology.

3.6.8.6.3 The Bidder shall prepare draft Customer Support Concept and outline how it adopts the Support processes and deliverables to the scope of this Contract.

3.6.8.7 Section 6: Test and Evaluation

3.6.8.7.1 The Bidder shall describe in detail its approach to develop test and evaluation documentation.

3.6.8.7.2 The Bidder shall identify its proposed test organisation and provide preliminary Test and Evaluation plan by WBS for the allocation of personnel and the time line for the Test activities set forth as requirements in SOW Section 10 of the Prospective Contract.

3.6.8.7.3 This plan shall also include a preliminary Security Test and Verification Plan (STVP) that meets the requirements set forth as in SOW Section 5 of the Prospective Contract.

3.6.8.7.4 The Bidder shall describe the major components, sub-assemblies and assemblies that proposed to be submitted for acceptance on the basis of prior testing and qualification and that are expected to undergo partial testing and extensive testing and evaluation.

3.6.8.7.5 If there are elements of the System that are proposed to be submitted on the basis of a Certificate of Conformity based on prior test and qualification, the Bidder shall provide a summary of the particulars and especially the dates of the prior tests and for whom the testing was executed.

3.6.8.7.6 The Bidder shall describe how the proposed Certificate of Conformity or request for exemption of testing based on prior qualification will be processed from QA and CM aspects.

3.6.8.7.7 The Bidder shall describe the preliminary version of procedures and controls to be employed for testing of components, sub-assemblies and assemblies that are sub-Contracted and tested at sub-Contractor's facilities.

3.6.8.8 PIP Section 7: Documentation

3.6.8.8.1 In this Section, the Bidder shall provide a preliminary Documentation Plan by WBS to detail the resources allocated and the schedule of work to deliver the documentation required in SOW Section 13 of the Prospective Contract.

3.6.8.8.2 In this plan, The Bidder shall describe how it proposes to comply with each of the documentation requirements detailed in SOW Section 13 of the Prospective Contract.

3.6.8.8.3 The Bidder shall also identify the documentation team and the individual responsible within its organisation for ensuring such documentation is delivered on schedule and to the Contract requirements.

3.6.8.9 PIP Section 8: System Acceptance

3.6.8.9.1 The Bidder shall develop a System Acceptance Plan in accordance with Statement of Work (SOW) Section 11 of the Prospective Contract. The Bidder shall provide a preliminary System Acceptance Plan by WBS for the allocation of personnel and the time schedule to accomplish all the activities required and ensure the timely delivery of all documentation and other deliverables required for successful Final Systems Acceptance (FSA).

3.6.8.10 PIP Section 9: Training

3.6.8.10.1 The Bidder shall provide a preliminary Training Plan in accordance with SOW Section 14 of the Prospective Contract, detailing the training methodology for training of test personnel, operators, maintainers and system administrators, schedules for the initial training of personnel, the proposed training materials and the proposed delivery schedule of those materials.

3.6.8.10.2 The Bidder shall describe its training organisation and demonstrate that adequate staffing in its organisation will be available to train the student population and meet the schedule without impacting on other activities.

3.6.8.10.3 The Bidder shall describe its approach regarding how support staff designated by the Site POC will be provided training on all tasks required to operate the system, perform daily maintenance and administration, disaster recovery, and problem isolation. The Bidder shall describe the Bidder's approach regarding how this training shall be structured according to the First, Second, and Third-Level support concept.

3.6.8.11 PIP Section 10: Reliability, Availability, Maintainability and Testability.

3.6.8.11.1 The Bidder shall provide a preliminary Reliability, Availability, Maintainability and Testability (RAMT) plan compliant with the requirements stated in SOW Section 9 of the Prospective Contract

3.6.8.11.2 The Bidder shall provide calculations that demonstrate that the BRASS BGR and Systems meets the RAMT requirements set forth in SOW Section 9 of the Prospective Contract. The Bidders shall provide these calculations based as much as possible on actual data derived from operational experience of fielded systems and components and extrapolations therefrom, and shall provide a full description of the source data utilised, providing equipment numbers, owners, location and inclusive dates.

3.6.8.11.3 The Bidder shall predict the MTBF (Main Time Between Failure) of the system it proposed and justify that the total availability of the system is within the requested values as specified at SOW.

3.6.8.12 PIP Section 11: Security Accreditation Plan

3.6.8.12.1 In this Section, the Bidder shall provide a preliminary Security Accreditation Plan (SAP) by WBS to detail the resources allocated and the schedule of work to obtain the Security Accreditation and to meet the security requirements set forth in SOW Section 5 of the Prospective Contract.

3.6.8.12.2 The Bidder shall confirm that it understands and accepts security accreditation documentation review and approval procedures, as defined in the IFB Book II Part III Contract General Provisions, Clause 22.

3.6.8.13 PIP Section 12: Risk Assessment and Management Plan

3.6.8.13.1 In order to demonstrate overall comprehension of the requirements set forth in the Prospective Contract, the Bidder shall provide a preliminary Risk Assessment and Management Plan (RAMP) defining his strategy for risk management to meet the requirements as set forth in SOW paragraph 2.7 of the Prospective Contract.

3.6.8.14 PIP Section 13: Site Installation

- 3.6.8.14.1 In this Section, the Bidder shall provide a preliminary plan that thoroughly describes the civil works, power and site preparation requirements that must be accomplished to properly install and operate the proposed BCA Replacement system as set forth in SOW Section 12 , SOW Annex A, and SOW Annex B of the Prospective Contract.
- 3.6.8.14.2 The Bidder shall provide adequate information regarding the requirements in order to quantify the magnitude of total civil works that must be accomplished on site prior to arrival of the equipment for installation.
- 3.6.8.14.3 The Bidder shall specify any characteristics of the BCA Replacement systems that constrain the type of civil works that are to be performed to prepare the sites.
- 3.6.8.14.4 Bidder shall confirm its understanding and acceptance of the site access requirements as defined in the IFB.

4 BID EVALUATION AND CONTRACT AWARD

4.1 General

- 4.1.1 The evaluation of Bids will be made by the Purchaser solely on the basis of the requirements specified in this IFB.
- 4.1.2 All bids will be evaluated solely using the formulae, evaluation criteria and factors contained herein. Technical Proposals will be evaluated strictly against the technical criteria and not against other Technical Proposals submitted.
- 4.1.3 The evaluation of bids will be based only on that information furnished by the Bidder and contained in its Bid. The Purchaser shall not be responsible for locating or securing any information that is not identified in the Bid.
- 4.1.4 The Bidder shall furnish with its Bid all information requested by the Purchaser in Book 1, **Section 3 Bid Preparation Instructions**. Significant omissions and/or cursory submissions may result in a determination of non-compliance without recourse to further clarification. The information provided by the Bidder in its proposal shall be to a level of detail necessary for the Purchaser to fully comprehend exactly what the Bidder proposes to furnish as well as its approach and methodologies.

- 4.1.5 During the evaluation, the Purchaser may request clarification of the Bid from the Bidder and the Bidder shall provide sufficient detailed information in connection with such requests as to permit the Purchaser to make a final assessment of the bid based upon the facts. The purpose of such clarifications will be to resolve ambiguities in the bid and to permit the Bidder to state its intentions regarding certain statements contained therein. The purpose of the clarification stage is not to elicit additional information from the Bidder that was not contained in the original submission or to allow the Bidder to supplement cursory answers or omitted aspects of the Bid. The Bidder is not permitted any cardinal alteration of the Bid regarding technical matters and shall not make any change to its price quotation at any time.
- 4.1.6 The Purchaser reserves the right, during the evaluation and selection process, to verify any statements made concerning experience, facilities, or existing designs or materials by making a physical inspection of the Bidder's facilities and capital assets. This includes the right to validate, by physical inspection, the facilities and assets of proposed subcontractors.
- 4.1.7 The Contract resulting from this IFB will be awarded to the Bidder whose offer, as evaluated by the Purchaser, is the lowest priced Bid in compliance with the requirements of this IFB. The evaluation will be conducted in accordance with NATO Bidding Procedures as set forth in document AC/4-D/2261 (1996 Edition). Evaluation of this IFB will be conducted in accordance with the "One Envelope" procedure in which only the Technical Proposal of the lowest Bidder is evaluated for compliance with the requirements of the IFB. The Bidder who has offered the lowest priced, technically compliant Bid will then be offered the Contract for award.

4.2 Administrative Evaluation

- 4.2.1 Prior to opening the Price Proposal Package, Bids will be reviewed for compliance with the Bid Submission Requirements of this Invitation for Bid. These are as follows:
- 4.2.1.1 The Bid was received by the Bid Closing Date and Time;
- 4.2.1.2 The Bid was packaged and marked properly;
- 4.2.1.3 The Bidder has submitted a Bid Guarantee in the required form, in the required amount and for the required validity in the Administrative Package;
- 4.2.1.4 The Administrative Package contained all the information required in the originally signed copies of the required Certificates in BOOK I Annex B hereto;

- 4.2.1.5 A Bid that fails to conform to the above requirements may be declared non-compliant and may not be evaluated further by the Purchaser;
- 4.2.1.6 A Bid that fails to conform to the above requirements may be declared non-compliant and may not be evaluated further by the Purchaser;
- 4.2.1.7 If it is discovered, during either the Technical or Price evaluation, that the Bidder has taken exception to the Terms and Conditions of the Prospective Contract, or has qualified and/or otherwise conditioned its offer on a modification or alteration of the Terms and Conditions or the language of the Statement of Work, the Bidder **may be determined to have submitted a non-compliant Bid.**

4.3 Price Evaluation

- 4.3.1 The Bidder's Price Quotation will be first assessed for compliance against the following criteria:
 - 4.3.1.1 The Price Quotation meets the requirements set forth in the Bid Preparation Section and the Instructions for Preparation of the Bidding Sheets in Annex A-2;
 - 4.3.1.2 Detailed pricing information has been provided and is adequate, accurate, traceable, and complete; and
 - 4.3.1.3 The Price Quotation meets requirements for price realism and balance as described below in Section 4.3.2;
 - 4.3.1.4 A bid which fails to meet the compliance standards defined in this section may be declared non-compliant and may not be evaluated further by the Purchaser.
 - 4.3.1.5 Basis of Price Comparison:
 - 4.3.1.6 The Purchaser will convert all prices quoted into EURO for purposes of comparison and computation of grand total price. The exchange rate to be utilised by the Purchaser will be the average of the official buying and selling rates of the European Central Bank at close of business on the last working day preceding the Bid Closing Date.
 - 4.3.1.7 The Evaluated Bid Price will be the summation of CLINs 1-6. CLIN 7 is an unevaluated priced option and not included as a part of the ranking of the bids.

	Priced CLINs Apart of the Evaluation
CLIN 1	Project Activities and Project Management
CLIN 2	Engineering
CLIN 3	Implementation
CLIN 4	Test and Acceptance
CLIN 5	Support
CLIN 6	Equipment Delivery

4.3.1.8 Inconsistencies and discrepancies in bid price quotation.

4.3.1.8.1 In case of inconsistencies, discrepancies and/or contradictory pricing information in the different parts of the bid price submission and notwithstanding the possibility for the Purchaser, at its sole discretion to obtain clarification from the bidder, for the purpose of determining the total price of the Bid, the following order of precedence shall apply:

4.3.1.8.1.1 Hard Copies Submission;

4.3.1.8.1.2 Bidding Sheet Grand Total as indicated by the Bidder;

4.3.1.8.1.3 Total of the Bid calculated from the indicated Total Prices(s) indicated per CLIN(s);

4.3.1.8.1.4 Electronic Submission;

4.3.1.8.1.5 Bidding Sheet Grand Total as indicated by the Bidder;

4.3.1.8.1.6 Total of the Bid calculated from the indicated Total Prices(s) indicated per CLIN(s).

4.3.2 Price Balance and Realism

4.3.2.1.1 Otherwise successful Bidders that submit a price quotation so low that it is not a realistic reflection of the objective cost of performance of the associated technical proposal may be considered by the Purchaser to have submitted an unrealistic offer and that offer may be determined to be non-compliant.

4.3.2.1.2 Indicators of an unrealistically low bid may be the following, amongst others:

4.3.2.1.3 Labour Costs that, when amortised over the expected or proposed direct labour hours, indicate average labour rates far below those prevailing in the Bidders locality for the types of labour proposed;

- 4.3.2.1.4 Direct Material costs that are considered to be too low for the amounts and types of material proposed, based on prevailing market prices for such material;
- 4.3.2.1.5 Numerous Line Item prices for supplies and services that are provided at no cost or at nominal prices.
- 4.3.2.1.6 If the Purchaser has reason to suspect that a Bidder has artificially debased its prices in order to secure Contract award, the Purchaser will request clarification of the bid in this regard and the Bidder shall provide explanation on one of the following bases:
- 4.3.2.1.6.1 An error was made in the preparation of the price quotation. The Bidder must document the nature of the error and show background documentation regarding the preparation of the price quotation that convincingly demonstrates that an error was made by the Bidder. In such a case the Bidder may request to remain in the competition and accept the contract at the bid price, or to withdraw from the competition;
- 4.3.2.1.6.2 The Bidder has a competitive advantage due to prior experience or internal business/technological processes that demonstrably reduce cost to the Bidder resulting in an offered price that is realistic. The Bidders explanation must support the technical proposal offered and convincingly and objectively describe the competitive advantage of and savings achieved by the advantage over the standard marked costs, practices and technology;
- 4.3.2.1.6.3 The Bidder understands that the submitted price quotations are unrealistically low in comparison with the level of effort required. In this case, the Bidder is required to estimate the potential loss and show that the financial resources of the Bidder are adequate to withstand such a reduction in revenue.
- 4.3.2.1.7 If a Bidder fails to submit a comprehensive and convincing explanation for one of the based above, the Purchaser shall declare the bid non-compliant and the Bidder will so be notified in accordance with the procedures set forth in paragraph 13(iii)(b) of AC/4-D/2261(1996 Edition). Non-compliance for reasons of bid realism is a basis for lodging a complaint under the dispute procedure.
- 4.3.2.1.8 If the Purchaser accepts the Bidder's explanation of mistake in paragraph 4.3.2.1.6 and allows the Bidder to accept the Contract at the offered price, or the Purchaser accepts the Bidder's explanation pursuant to paragraph 4.3.2.1.6 above, the Bidder shall agree that the supporting pricing data submitted with its Bid will be incorporated by reference in the resultant Contract. The

Bidder shall agree as a condition of Contract signature, that the pricing data will be the basis of determining fair and reasonable pricing for all subsequent negotiations for modifications of or additions to the Contract and that no revisions of proposed prices will be made.

4.3.2.1.9 If the Bidder presents a convincing rationale pursuant to paragraph 4.3.2.1.6 above, no additional action will be warranted. The Purchaser, however, reserves its right to reject such an argument if the rationale is not compelling or capable of objective analysis. In such a case the Bid may be determined to be non-compliant.

4.3.2.1.10 In the case of incrementally funded projects, the cost and pricing methodology used by the winning Bidder on the base contract will be used as the basis for all follow-on contracts or amendments to the base contract where these are proposed for IC agreement without competition.

4.4 Technical Evaluation

4.4.1 Upon determination of the lowest-priced Bid as described above, the Bid shall be evaluated to confirm compliance with the SOW associated with the respective sections of the Technical Proposal.

4.4.2 In order for a Bid to be determined to be technically compliant, the Bidder shall have submitted a Technical Proposal (TP) that has met the following criteria after evaluation by the Purchaser:

4.4.2.1 Following the Table of Contents, the Bidder shall have included the completed Technical Proposal Cross-Reference (Requirement Traceability) Table at BOOK I Section IV Annex C. The Bidder shall have completed Column 3 (Bid Reference) of the Table referred above, citing the appropriate section of the Technical Proposal that corresponds to each paragraph of these Instructions for the Preparation of the Technical Proposal. The completed Table serves as an index for the Purchaser's Technical Evaluation Panel and also as an aide memoire to the Bidder to ensure that all the required information has been provided in the Technical Proposal.

4.4.2.2 The Bidder shall have provided an overview of the salient features of their technical proposal in the form of an executive summary.

4.4.2.3 This summary shall have provided general description of the major points contained in each of the required sections of the Technical Proposal and shall have demonstrated the Bidder's

understanding of the project, implementation environment and the problems and risks of project implementation.

4.4.2.4 The Bidder shall have discussed in detail not only how the proposal meets the requirements but also how the Bidder intends to overcome the problems and mitigate the risks.

4.4.3 The Technical Evaluation Criteria is cited in the following paragraphs below:

4.4.4 Volume 1: Corporate Organisation/Capital Facilities

4.4.4.1 The Bidder shall have proposed a Corporate Structure and organization of the Prime Contractor and the administration demonstrating that the BCA Replacement Systems Contract has high visibility within the overall corporate organisation. This section shall have indicated the chain of authority within the Prime Contractor's organisation from the Project Manager to the Chief Executive Officer. The Corporate Structure described shall have adequate depth of resources with the overall corporate organisation to ensure a reserve capability in order to successfully perform the Contract.

4.4.4.2 The Corporate Structure described shall have demonstrated that the Project Manager has sufficient authority and priority within the organisation to access in timely manner corporate resources that are not directly under his control as Project Manager.

4.4.4.3 The Bidder shall have described the process by which the Project Manager may have access to these "in-house" corporate resources and what level of authority is required in the Corporation hierarchy to secure the needed resources.

4.4.4.4 The Bidder shall have provided the comprehensive Curriculum Vitae (CV) for the Project Manager proposed for this project and also the Deputy Project Manager (where applicable). The Bidder shall have provided a narrative describing the rationale for the selection of these individuals for these posts and have provided detailed descriptions of the experience of the individuals in managing procurement programmes of this magnitude. This section shall have described the authority and responsibility (and the limits) of the Project Manager and the Deputy Project Manager within the overall corporate organisation. The narrative shall have described the circumstances at which the Project Manager must refer decision-making authority to the next level of corporate management.

4.4.4.5 The Bidder shall have described the responsibilities of its Project Management Office (PMO) and described the associated staffing

and resources. The description of the staffing and resources shall have covered everything needed to conduct and support the management and administration of operations in order to meet the objectives of the project, including taking all reasonable steps to ensure continuity of personnel assigned to work on this project.

- 4.4.4.6 The Bidder shall have identified his major proposed prospective sub-Contractors for the BCA Replacement Systems, as stated in Book I Section IV Annex-B-14. The Bidder shall have also submitted a detailed and thorough sub-Contracting plan that identifies major sub-Contractors/sub-vendors and their areas of responsibility/delivery. The plan shall have agreed with the Project Control Plan, in that delivery of sub-Contracted items and assemblies, critical components is identified. The plan shall have demonstrated that the Bidder can effectively manage, monitor and control the proposed sub-Contractors and that the sub-Contractors will agree to abide by the requirements of the prime Contract as pertains to flow-down provisions. Such a declaration of sub-contractors to abide by the requirements of the prime contract shall have been available in the Bidder's proposal.
- 4.4.4.7 The Bidder shall have included a draft copy of the proposed sub-contract, as applicable. The Bidder shall have included a letter of intent from the proposed sub-contractor that details its willingness to enter into a sub-contract with the Bidder if the Bidder shall receive award of the BCA Replacement Systems Contract and a summary of the supplies and/or services to be furnished by the prospective sub-contractor.
- 4.4.4.8 With regard to major sub-Contracts, the Bidder shall have identified those items that are sub-Contracted (assemblies and sub-assemblies) and that are considered to be on the "Critical Path" to meeting the delivery schedule of the Contract.
- 4.4.4.9 The Bidder shall have provided a description of the parts of the project that he intends to sub-Contract and demonstrate that the chosen sub-Contractors have adequate assets and capacity to fulfil their role to that they have been allocated. The Bidder shall have demonstrated that such sub-Contracted facilities and assets are available to meet the anticipated schedule, and have provided sufficient alternative arrangements in case of the failure to deliver of critical sub-Contracted items.
- 4.4.4.10 The Bidder shall have provided a sub-section that identifies the items (assemblies, sub-assemblies) and services that are to be fabricated and/or performed by the corporate resources of the Prime Contractor.

4.4.4.11 The Bidder shall have identified the location of the production facilities that will be utilized, and/or the source within the corporate organisation of the services and expertise required. For corporate production facilities, the Bidder shall have provided analytical evidence that adequate capacity exists in order that the required items may be made within the time schedule of the Prospective Contract.

4.4.4.12 The Bidder shall have demonstrated existing capital assets and provide a detailed proposal of what additional equipment or facilities will be acquired or constructed in order to meet the Contract schedule.

4.4.4.13 The Bidder shall further have provided a description of any retooling efforts required and a time forecast of when these efforts can be completed.

4.4.4.14 The Bidder shall have described the distribution, warehousing, or order-processing capabilities the Bidder has that enables it to provide efficient and prompt delivery of hardware in satisfaction of short-notice or unpredictable customer orders. The description must have provided sufficient evidence to confirm that the Bidder will be able to meet the timelines and other shipment and task requirements of the SOW.

4.4.5 Volume 2: Corporate Experience

4.4.5.1 The Bidder shall have been an established system developer having substantial experience in the last three (3) years in the design, manufacturing, installation, maintenance and support of Defence Communication and Information Systems (CIS).

4.4.5.2 The Bidder shall have demonstrated that he has delivered within the last three (3) years, or is under Contract to deliver CIS Defence systems. Alternatively, the Bid shall be based on an existing design that has been operationally tested and the test results certified by national authorities. The design need not be identical to the requirements of this Contract but must be of sufficient similarity that cardinal modifications to the basic design will not have to be undertaken, thus increasing the confidence of the Bidder's ability to deliver within schedule.

4.4.5.3 The Bidder shall have demonstrated the experience over the last three (3) years in the maintenance and support of similarly sized Defence Communication and Information Systems.

4.4.5.4 The Bidder shall have documented that it has delivered a CIS defence system as offered in its proposal and gained acceptance in the last three (3) years, or be currently under contract to deliver

such system in an operational capacity. In this sense, “operational capacity” shall not include a current research and development contract or a contract for prototype system(s) but a system to be used and operated as part of a National and/or NATO communications system.

- 4.4.5.5 The Bidder shall have provided the same information required above for the major sub-contractors for critical assemblies and subassemblies. The sub-contractors need not be manufacturers of the Communication and Information Systems as a whole, but must demonstrate the level of experience for which they are proposed to deliver or services for which they are proposed to perform.
 - 4.4.5.6 The Bidder shall have described its experience and expertise in providing warranty support and repair-and-replacement service for similar Defence Communication and Information systems for large, geographically-dispersed organisations. The bidder shall have proven his experience and expertise for warranty support, repair and replacement service with required documentation.
 - 4.4.5.7 The bidder shall have confirmed his and his subcontractor’s experience in providing the implementation + warranty by demonstrating examples of work performed for either other NATO or National Contracts.
 - 4.4.5.8 Individual skill and experience: The Bidder shall have provided resumes of the proposed individuals to perform the technical tasks under the proposed Work Packages and the resumes of the individuals designated as Key Personnel in Annex B-13. For each role identified, the resumes shall have demonstrated that they have the expected knowledge, capability and experience to meet the requirements of this Contract.
- 4.4.6 Volume 3: Preliminary Project Implementation Plan (PIP)
- 4.4.6.1 PIP Section 1: Project Management and Control Plan (PMCP)
 - 4.4.6.1.1 The Bidder shall have submitted a preliminary Project Management and Control Plan (PMCP) that conforms with the requirements of SOW paragraph 2.3 of the Prospective Contract. This plan shall have identified the significant tasks required to be accomplished and the items to be delivered in the execution of the Contract. The preliminary Project Work Breakdown Structure (PWBS), the preliminary Project Master Schedule (PMS) and supporting charts shall have thoroughly described the steps necessary to achieve delivery of the BCA Replacement Systems within the Contract terms and schedule. The preliminary PMCP shall have been logical

and realistic, demonstrating the Bidder's appreciation of the complexity of the Project and his experience in managing large programmes.

- 4.4.6.1.2 The Bidder shall also have developed a preliminary Project Master Schedule (PMS) in accordance with SOW paragraph 2.3 of the Prospective Contract that shall contain all Contract events and milestones. The PMS shall have correlated with the PWBS. The PMS shall have included activity network, activity GANTT / Program Evaluation Review Technique (PERT) charts, milestone, and critical path views of the project schedule, showing detailed and high level schedules with associated resources. This Plan shall have been detailed to the level at which all deliverable items required under the Contract are identified and accounted for by a work path that shows the interconnectivity of the various task.
- 4.4.6.1.3 The Bidder shall have demonstrated the realism of approach to accomplish the work within the time schedule defined in the IFB. The Bidder shall have submitted a PMCP compliant with BOOK II Part I and the Gantt/PERT diagrams set forth in BOOK II Part I.
- 4.4.6.1.4 In the PMS, the relationship between the Work Packages and project deliverables shall have been clearly demonstrated as well as the schedule of sub-Contracted performance and deliveries shall have been clearly integrated into this Plan.
- 4.4.6.1.5 This preliminary PMCP shall also have considered all aspects of project management and control and shall have demonstrated how all the critical milestones defined in the BOOK II Part I Section2 will be met.
- 4.4.6.1.6 The Bidder shall have not altered or amended the dates for Milestones (BOOK II Part I). These dates shall have been incorporated into the resultant Contract of the successful Bidder.
- 4.4.6.1.7 The Bidder shall have demonstrated the realism of approach to accomplish the work within the time schedule defined in the IFB. The dates set forth in BOOK II Part I shall have been fully supported and coherent by/with the Gantt/PERT diagrams as well as the PWBS. Separately, Bidders may propose earlier delivery dates than those stated in BOOK II Part I. Where dates offered are earlier than those set forth in the Prospective Contract, the Purchaser may, at its discretion, accept such dates and the alternative Milestone Schedule will be inserted in the resultant contract.
- 4.4.6.1.8 The Bidder shall have demonstrated that he has taken into account the constraints of the implementation environment and reflected

this understanding in his draft preliminary Project Management and Control Plan.

4.4.6.2 PIP Section 2: System Engineering and Design

- 4.4.6.2.1 The Bidder shall have submitted a Preliminary System Engineering and Design Plan, describing the preliminary design of the proposed BCA Replacement System and including a preliminary System Safety Engineering Plan as sub-plan that conform to the requirements of SOW Section 4 of the Prospective Contract.
- 4.4.6.2.2 The Bidder shall have supported this design with such information as to convincingly demonstrate that the proposed design will meet the safety and security requirements as set forth in SOW Section 4 and Section 5 of the Prospective Contract as well as functional and technical requirements as set forth in SOW Annex A, and Annex-B of the Prospective Contract. Bidder's technical proposed design shall have provided detailed information on how the Bidder intends to meet performance, functional or architectural requirements defined in the IFB. Failure to provide detailed technical information any of the bidding requirements or omission of the critical information may result in a determination of non-compliance for the entire Bid.
- 4.4.6.2.3 The Preliminary System Engineering and Design Plans shall have provided detailed descriptions of how the proposed designs of both projects shall have met each of the specific performance requirements/parameters of the areas detailed at SOW paragraph 4.2 of the Prospective Contract.
- 4.4.6.2.4 The Preliminary System Engineering and Design Plans shall have contained as much detail as is practicable in order to demonstrate that the system as delivered will meet the safety and security requirements as set forth in SOW Section 4 and SOW Section 5 of the Prospective Contract as well as functional and technical requirements as set forth in SOW Annex A, and Annex-B of the Prospective Contract.
- 4.4.6.2.5 The Bidder shall have described the Bidder's approach to preparing and maintaining the Engineering Documentation Package throughout the design, integration, test and site surveys activities, ensuring consistency between all the documents included in that documentation package.
- 4.4.6.2.6 For each Hardware Contract Line Item Number (CLIN); the Bidder shall have included in his bid a detailed list of the COTS components proposed to be supplied as part of that CLIN. The product name, manufacturer name, and manufacturer's part

number, version, or release number shall have been stated. If a generic or non-vendor specific component is proposed, the Bidder shall have provided the item name.

- 4.4.6.2.7 The Bidder shall have included in his bid a detailed specification sheet for each item of equipment the Bidder proposes to provide in satisfaction of contractual requirements.
- 4.4.6.2.8 The Bidder shall furnish drawings, diagrams and specifications. If the proposed BCA Replacement Systems are based on a design that has been tested and the results certified by a national authority, the test performance data shall also have been provided and data projections included for elements that were not tested.
- 4.4.6.2.9 The Bidder shall have provided predicted performance characteristics and specifications based on engineering analysis and/or extrapolations from previous data.
- 4.4.6.2.10 Bidder's technical proposed designs for BCA Replacement systems shall have provided detailed information on how the Bidder intends to meet performance, functional or architectural requirements defined in the SOW and all Annexes. Failure to provide detailed technical information any of the bidding requirements or omission of the critical information may result in a determination of non-compliance for the entire Bid.
- 4.4.6.2.11 Bidder shall have provided assurance that they understand both the requirements on the isolator functionality and viable methods for attaining accreditation for their solution in accordance with SOW Section 5 and SOW Annex-A. Failure to provide detailed technical information of these sensitive bidding requirements or omission of any critical information may result in a determination of non-compliance for the entire Bid.
- 4.4.6.2.12 The Bidder shall have agreed to abide by and implement the security mechanism as defined in the NATO Security Policy and supporting directives as per Section 5 of the SOW.
- 4.4.6.2.13 The Bidder shall have proposed automated tools to process classified data and information that shall meet the respective security requirements as stated at Section 5 of the SOW.
- 4.4.6.2.14 The Section related to security shall have been submitted as a self-contained volume or volumes of the Technical Proposal and shall have been segregated from the other materials insofar as the nature of the responses will be subject to Security Classification.

4.4.6.2.15 The Bidder shall have demonstrated and confirmed that the hardware and software to be procured in accordance with this IFB meets the specifications as defined in SOW Annex-A.

4.4.6.2.16 The Bidder shall have described the Bidder's Risk Assessment including proposing any appropriate change requests against the Functional Baseline.

4.4.6.3 PIP Section 3: Quality Assurance (QA)

4.4.6.3.1 The Bidder shall have submitted a preliminary version of the Quality Assurance/Quality Control (QA/QC) Plan in accordance with SOW Section 6 of the Prospective Contract. Within this plan, the Bidder shall have addressed all the requirements of the Contract concerning QA and QC as set forth in Article 25 of the Contract Special Provisions and SOW Section 6 of the Prospective Contract. The Bidder shall have also identified the QA/QC systems (that he intended to apply to the performance of this contract and shall demonstrate that his choice complies with the applicable requirements).

4.4.6.3.2 The Bidder shall have provided that the QA/QC organization in his company has enough competence with demonstrated capability in managing Quality Programme of a project of this magnitude. The QA/QC organization and the QA Manager have sufficient inherent authority and visibility in the overall corporate structure to properly execute the Software, Hardware and Documentation aspects of QA Management of a project of this size and complexity.

4.4.6.3.3 The proposed Quality Assurance / Quality Control Plan shall have demonstrated how procedures are developed, implemented and maintained to adequately control the design, integration, production, purchasing, installation, inspection, testing, configuration management and customer support of all services and all products (both management products and specialist products), in accordance with the requirements of this Contract.

4.4.6.3.4 The proposed QA/QC Plan shall have described the quality criteria that will be applied to each of the deliverables under this contract (i.e. the documentation as well as the system and all of its components).

4.4.6.3.5 The proposed QA/QC Plan shall have described the Bidder's internal process for the quality review of the deliverables before their release to the Purchaser.

4.4.6.3.6 The proposed Quality Plan shall have described how all necessary assistance shall be provided to the Quality Assurance Representative or his delegated National QAR, and how quality

records for the prime and any Sub-contractors or consortium members shall be made available for evaluation.

4.4.6.3.7 The Bidder shall have provided information similar to that set forth in sub-paragraphs of 4.5.9.c above in order to demonstrate the conformance to the QA/QC Contract requirements by the major sub-Contractors and suppliers and shall have stated how he intends to ensure compliance of his prospective sub-Contractors and, as applicable, of the prospective suppliers of Commercial-Off-The-Shelf (COTS) equipment with QA/QC requirements of the SOW of the Prospective Contract.

4.4.6.4 PIP Section 4: Configuration Management

4.4.6.4.1 The Bidder shall have submitted a preliminary Configuration Management Plan, for BCA Replacement that conforms with the requirements of SOW Section 7 of the Prospective Contract. The Bidder shall have demonstrated that his proposed Configuration Management procedures meet the requirements of SOW Section 7 of the Prospective Contract. The Bidder shall further provide details of his existing CM organisation.

4.4.6.4.2 The Bidder shall have outlined how he adopts the Configuration Management processes and deliverables to the scope of this contract as requested in the SOW Section 7.

4.4.6.4.3 The Bidder shall have demonstrated that the various baselines referred under SOW paragraph 7.5 will be established using automated tools.

4.4.6.4.4 In addition, the Bidder shall have demonstrated that a Configuration Status Accounting (CSA) database will be maintained using software tools during the Contract.

4.4.6.4.5 The Bidder shall have described the Bidder's approach to conducting the Physical Configuration Audit for each site, including the verification of delivered configuration items against the Product Baseline.

4.4.6.4.6 The Bidder shall have provided, as part of the CM Plan, A project specific, Configuration Control process description; an initial set of project specific Configuration Item selection criteria for the capabilities; an initial set of project specific Configuration Items (CI) including their attributes and relationships among each other for the Capabilities.

4.4.6.5 PIP Section 5: Integrated Logistics Support

- 4.4.6.5.1 The Bidder shall have provided a high level description of the proposed Integrated Logistics Support Plan. This plan shall have covered the requirements of the Prospective Contract as set forth in Section 8 of the Statement of Work.
- 4.4.6.5.2 The Bidder shall have described his approach and how he will meet the requirements for the BCA Replacement systems maintenance and Supply Support for both hardware and software in accordance with SOW paragraph 8.1 to 8.13 of the Prospective Contract. The Bidder shall have described the proposed spares provisioning methodology.
- 4.4.6.5.3 The Bidder shall have prepared draft Customer Support Concept and outlined how he adopts the Support processes and deliverables to the scope of this contract. The Bidder shall have provided as part of the following Draft Support Concept:
- 4.4.6.5.3.1 A project specific, Problem Management process description including all Bidder resources (number and labour categories of staff, nature and quantities of any other required resources) that he will use to provide this 2nd Level Support.
- 4.4.6.5.3.2 A "Problem Analysis Report"- Template;
- 4.4.6.5.3.3 Draft Maintenance Concept. The Bidder shall have outlined how he adapts the Maintenance processes and deliverables to the scope of this contract;
- 4.4.6.5.3.4 Draft Transportation Plan. The Bidder shall have outlined how he adopts the Transportation processes and deliverables to the scope of this contract.
- 4.4.6.6 PIP Section 6: Test and Evaluation
- 4.4.6.6.1 The bidder shall have described in detail his approach to developing test and evaluation documentation.
- 4.4.6.6.2 The Bidder shall have submitted a preliminary version of the Test and Evaluation Plan for BCA Replacement system for FAT, and SAT for the allocation of personnel and the time line for the Test activities that meets the overall requirements and objectives of SOW Section 10 of the Prospective Contract.
- 4.4.6.6.3 The Bidder shall have submitted as integral part of the testing activities provide a preliminary Security Test and Verification Plan (STVP) that meets the requirements set forth as in SOW Section 5 of the Prospective Contract.

4.4.6.6.4 The Bidder shall have provided comprehensive information about the major components, sub-assemblies and assemblies that are expected to undergo partial testing and extensive testing and evaluation prior to FAT, and SAT.

4.4.6.6.5 If there are elements of the System that are proposed to be submitted on the basis of a Certificate of Conformity based on prior test and qualification, the Bidder shall also have provided a summary of the particulars and especially the dates of the prior tests and for whom the testing was executed.

4.4.6.6.6 The Bidder shall have described how the proposed Certificate of Conformity will be processed from QA and CM aspects.

4.4.6.6.7 The Bidder shall have adequately described his proposed methods to ensure the testing in compliance with Contract requirements of components, sub-assemblies and assemblies that are sub-Contracted and tested at sub-Contractor facilities.

4.4.6.7 PIP Section 7: Documentation

4.4.6.7.1 In this Section, the Bidder shall have provided a preliminary Documentation Plan by WBS to detail the resources allocated and the schedule of work to deliver the documentation required in SOW Section 13 of the Prospective Contract.

4.4.6.7.2 In this plan, The Bidder shall have described how he proposes to comply with each of the documentation requirements detailed in SOW Section 13 of the Prospective Contract.

4.4.6.7.3 The Bidder shall also have identified the documentation team and the individual responsible within his organisation for ensuring such documentation is delivered on schedule and to the Contract requirements.

4.4.6.8 PIP Section 8: System Acceptance

4.4.6.8.1 The Bidder shall have provided a preliminary System Acceptance Plans for the BCA Replacement system by WBS for the allocation of personnel and the time schedule to accomplish all the activities required and ensure the timely delivery of all documentation and other deliverables required for successful Final Systems Acceptance (FSA) in order to meet the requirements as set forth in SOW Section 11 of the Prospective Contract.

4.4.6.9 PIP Section 9: Training

4.4.6.9.1 The Bidder shall have submitted two preliminary Training Plans for the BCA Replacement system, that demonstrate that he fully

understands the Training requirements set forth in SOW Section 14 of the Prospective Contract detailing the training methodology for training of test personnel, operators, maintainers and system administrators, schedules for the initial training of personnel, the proposed training materials and the proposed delivery schedule of those materials and thoroughly addresses the salient features of such requirements, such as schedule, material, media and content.

4.4.6.9.2 The Bidder shall have described his training organisation and demonstrated that adequate staffing in his organisation will be available to train the student population and meet the schedule without impacting on other activities. The Bidder shall have described the medium/media to be utilised in his proposed training method.

4.4.6.9.3 The Bidder shall have described his approach regarding how support staff designated by the Site POC will be provided training on all tasks required to operate the system, perform daily maintenance and administration, disaster recovery, and problem isolation. The Bid shall have described the Bidder's approach regarding how this training shall be structured according to the First, Second, and Third-Level support concept.

4.4.6.10 PIP Section 10: Reliability, Availability, Maintainability and Testability

4.4.6.10.1 The Bidder shall have provided a preliminary Reliability, Availability, Maintainability and Testability (RAMT) plan compliant with the requirements stated in SOW Section 9 of the Prospective Contract.

4.4.6.10.2 The Bidder shall have provided calculations that convincingly demonstrated that the proposed BCA Replacement systems design will meet the Reliability, Availability, Maintainability and Testability (RAMT) requirements set forth in the SOW Section 9 of the Prospective Contract. The Bidders shall have provided these calculations based as much as possible on actual data derived from operational experience of fielded systems and components and extrapolations therefrom, and shall have provided a full description of the source data utilised, providing equipment numbers, owners, location and inclusive dates.

4.4.6.10.3 The Bidder shall have predicted the MTBF of the system he proposed and justify that the total availability of the system is within the requested values as specified at SOW. The Bidder shall provide calculations that demonstrate that the BCA Replacement System meets the RAMT requirements of the IFB.

4.4.6.11 PIP Section 11: Security Accreditation

- 4.4.6.11.1 The Bidder shall have submitted a preliminary Security Accreditation Plan and shall have convincingly demonstrated that the proposed plan will meet the Security requirements set forth in SOW Section 5 of the Prospective Contract.
- 4.4.6.11.2 The Bidder shall have confirmed that he understands and accepts security accreditation documentation review and approval procedures, as defined in the IFB Book II Part II Section 2 Contract General Provisions, paragraph 22.

4.4.6.12 PIP Section 12: Risk Assessment and Management

- 4.4.6.12.1 The Bidder shall have provided a preliminary Risk Assessment and Management Plan (RAMP) defining his strategy for risk management to meet the requirements as set forth in SOW paragraph 2.7 of the Prospective Contract. The Bidder shall have demonstrated the adequacy of monitoring and control activities to ensure early detection of problem areas and to schedule risk. The Bidder shall have identified the possible risks involved in the performance of the Contract and shall have convincingly demonstrated that his approach offers adequate, logical and pragmatic means for risk identification, assessment, mitigation, monitoring, and reporting the risks, as well as methods for overcoming setbacks to the project throughout the Contract duration.

4.4.6.13 PIP Section 13: Site Installation

- 4.4.6.13.1 The Bidder shall have provided specific and comprehensive information concerning the civil works, Power and site preparation requirements that must be accomplished to properly install and operate the proposed BCA Replacement systems as set forth in SOW Section 12, SOW Annex A, and SOW Annex B of the Prospective Contract. The bidder shall have demonstrated his concept and technical solutions including sufficient degree of details. The Bidder shall also have provided specific and comprehensive information concerning the civil works, power and site preparation requirements necessary to have been completed prior to the installation of the delivered BCA Replacement Systems.
- 4.4.6.13.2 The Bidder shall have confirmed his understanding and acceptance of the site access requirements as defined in the IFB.

Annex A Bidding Sheets

Provided as Excel Workbook file (“2_IFB-CO-14311-BCA Book I Annex A Bidding Sheets.xlsx”)

Annex A-1. Bidding Sheets

On behalf of the firm stated below I hereby offer the Purchaser the services and deliverables (collectively referred as "ITEMS") set forth in the attached schedules¹, at the specified prices, and subject to the terms and conditions stated in IFB-CO-14311-BCA.

Date :

Signature :

Name & Title :

Company :

Bid Reference :

¹ Bidders must fill out, print, and attach to this cover page a hardcopy of the worksheets contained in the file "2_IFB-CO-14311-BCA - Book I Annex A Bidding Sheets.xlsx" that was provided to them as part of the IFB package.

Annex A-2. Instructions for the Preparation of Bidding Sheets

1. INTRODUCTION

Bid pricing requirements as addressed in this Annex are mandatory. Failure to abide to the prescriptions of bid submission referred in this section may lead to the bid being declared non-compliant and not being taken into consideration for award.

No alteration of the bidding sheets including but not limited to quantity indications, descriptions or titles are allowed with the sole exception of those explicitly indicated as allowed in this document. Additional price columns may be added if multiple currencies are bid, including extra provisions for all totals.

2. GENERAL REQUIREMENTS

Bidders shall follow the specific instructions provided in each worksheet.

Bidders shall insert information in all yellow cells.

The prices and quantities entered on the document shall reflect the total items required to meet the contractual requirements. The total price shall be indicated in the appropriate columns.

In preparing the Bidding Sheets, Bidders shall ensure that the prices of the Sub-items total the price of the major item of which they constitute a part.

All metrics (e.g., cost associated with labour) will be assumed to be standard or normalised to 7.6 hour/day, for a five day working week at NATO sites and Contractor facilities located within Europe and 8 hours/day at NATO sites and Contractor facilities located in the United States.

Should the bid be in other than Euro currency, the award of the contract will be made in the currency or currencies of the bid.

Bidders are advised that formulae are designed to ease evaluation of the Bidders proposal have been inserted in the electronic copies of the Bidding Sheets. Notwithstanding this the Bidder remains responsible for ensuring that their figures are correctly calculated and should not rely on the accuracy of the formulae electronic copies of the Bidding Sheets.

If the Bidder identifies an error in the spreadsheet, it should notify the Purchaser who will make a correction and notify all the Bidders of the update.

Any discounted or reduced prices offered by the Bidder must be traceable to a CLIN or CLINs at the lowest level. Prices and detail of the traceability of application of the discount shall be clearly identified in the supporting detail sheets and applied at the unit price level.

3. STRUCTURE OF BIDDING SHEETS.

The Bidding Sheets provided in MS Office Excel format are organised according to the following structure:

- Instructions
- Section 1:
 - Offer Summary
 - CLIN Summary Sheet
- Section 2:
 - Detailed Bidding Sheets

4. COMPLETING SECTION 1 (Offer Summary & CLIN Summary Sheet)

Section 1, CLIN X Sheets correspond to the Schedule of Supplies and Services of the Prospective Contract. Each Work Package (WP) included in the contract is represented by a detailed schedule showing the Contract Line Items (CLINs) included within the scope of the Work Package (Detailed bidding sheet tabs) and a detailed cost breakdown attached to each WP schedule.

4.1 Filling the CLIN Summary & Offer Sheet

Bidders shall fill in the CLIN summary sheet based on the information provided in the detailed bidding sheets (CLIN Price Breakdown sheets). The detailed bidding sheets are broken down in to the categories listed in Section 5. Bidders are expected to aggregate the prices in the detailed bidding sheets that make up the line items in the CLIN summary sheet. The line items in the CLIN Summary Sheet shall be all INCLUSIVE of the price being bid in order to fulfil the requirement for the line item in the CLIN Summary Sheet. Bidders shall make sure that the total price indicated in the Detailed Bidding Sheets matches the price stated in the CLIN summary sheet for the same corresponding CLIN or sub-CLIN. The Offer Summary must be traceable to the CLIN Summary Sheet to provide a high level summary.

5. COMPLETING SECTIONS (Detailed Bidding Sheets)

Bidders are instructed to prepare their cost proposals in sufficient detail to permit thorough and complete evaluation. For each of the CLINs the Bidder shall use the separate Detailed CLIN Breakdown Sheets as provided, adding additional sheets if multiple currencies are used. Bidders shall change the currency in the header of the Sheets if necessary. Bidders do not need to fill in yellow cells not pertinent to their bid.

5.1. MATERIAL

A. Purchased Parts: Provide a consolidated priced summary of individual material quantities included in the various tasks, orders, or contract line items being proposed and the basis for pricing.

(1) Raw Material: Consists of material in a form or state that requires further processing. Provide priced quantities of items required for the proposal. Show total cost.

(2) Standard Commercial Items: Consists of items that the Bidder normally fabricates, in whole or in part, and that are generally stocked in inventory. Provide an appropriate explanation of the basis for pricing on attached schedule.

(3) The Bidder shall provide a level of detail down the unique sellable item level (e.g. smartcards, OCSP, RAs, etc.)

(4) The Bidder shall provide unit prices that shall be EXCLUSIVE of any applicable overhead, general and administrative costs, profit, costs associated to travel, per-diem and/or incidentals as well as Personnel Installation costs at the sites of performance. Factors for overhead shall be applied in the MATERIAL LABOUR OVERHEAD section of the detailed bidding sheet to the total cost of material.

5.2 DIRECT LABOUR

Show the hourly rate by year and the total hours for the categories and disciplines of direct labour proposed.

Unit prices shall be EXCLUSIVE of any applicable overhead, general and administrative costs, profit, costs associated to travel, per-diem and/or incidentals as well as Personnel Installation costs at the sites of performance. Factors for overhead shall be applied in the DIRECT LABOUR OVERHEAD section of the detailed bidding sheet to the total cost of direct labour.

5.3 SUBCONTRACT LABOUR

Show the hourly rate by year and the total hours for the categories and disciplines of subcontract labour proposed. Unit prices shall be EXCLUSIVE of any applicable overhead, general and administrative costs, profit, costs associated to travel, per-diem and/or incidentals as well as Personnel Installation costs at the sites of performance. Factors for overhead shall be applied in the SUBCONTRACT LABOUR OVERHEAD section of the detailed bidding sheet to the total cost of subcontract labour.

5.4 TRAVEL

Show the number of trips being made, the number of people travelling, the number of days per trip, the cost of traveling (e.g. flight costs), and the daily per diem rate.

Insert comments/descriptions/references/explanation of calculation method under the 'Notes' column including the location & reference to SOW.

5.5 OTHER DIRECT COSTS

- a. Special Tooling/Equipment. Identify and support specific equipment and unit prices. Use a separate schedule if necessary.
- b. Individual Consultant Services. Identify and support the proposed contemplated consulting. State the amount of services estimated to be required and the consultant's quoted daily or hourly rate.
- c. Other Costs. List all other direct charge costs not otherwise included in the categories described above (e.g., services of specialized trades, computer services, preservation, packaging and packing, leasing of equipment, ex-pat costs etc.) and provide bases for pricing.

6. GRAND TOTAL

This is the Bidders final Firm Fixed Price total for the identified CLIN or sub-CLIN and should match the price entered in the corresponding summary sheets in Section 1 of the bidding sheets.

Annex B Prescribed Administrative Forms and Certificates

Annex B-1. Certificate of Legal Name of Bidder

This Bid is prepared and submitted on behalf of the legal corporate entity specified below:

FULL NAME OF CORPORATION: _____

DIVISION (IF APPLICABLE): _____

SUB DIVISION (IF APPLICABLE): _____

OFFICIAL MAILING ADDRESS

E-MAIL ADDRESS: _____

TELEFAX No: _____

POINT OF CONTACT REGARDING THIS BID:

NAME: _____

POSITION: _____

TELEPHONE: _____

ALTERNATIVE POINT OF CONTACT:

NAME: _____

POSITION: _____

TELEPHONE: _____

Date

Signature of Authorised Representative

Printed Name

Title

Company

Annex B-2. Acknowledgement of Receipt of IFB Amendments

I confirm that the following amendments to Invitation for Bid IFB-CO-14311-BCA have been received and the Bid, as submitted, reflects the content of such amendments.

Amendment no.	Date of Issued	Date of receipt	Initials

Date

Signature of Authorised Representative

Printed Name

Title

Company

Annex B-3. Certificate of Independent Determination

It is hereby stated that:

- a. We have read and understand all documentation issued as part of IFB-CO-14311-BCA. Our Bid submitted in response to the referred solicitation is fully compliant with the provisions of the IFB and the prospective contract.
- b. Our Bid has been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition, with any other Bidder or with any competitor;
- b. The contents of our Bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to award, directly or indirectly to any other Bidder or to any competitor; and
- c. No attempt has been made, or will be made by the Bidder to induce any other person or firm to submit, or not to submit, a Bid for the purpose of restricting competition.

Date :

Signature :

Name & Title :

Company :

Bid Reference :

Annex B-4. Certificate of Bid Validity

I, the undersigned, as an authorised representative of the firm submitting this Bid, do hereby certify that the pricing and all other aspects of our Bid will remain valid for a period of twelve months from the Bid Closing Date of this Invitation for Bid.

.....
Date

.....
Signature of Authorised Representative

.....
Title

.....
Company

Annex B-5. Certificate of Exclusion of Taxes, Duties and Charges

I hereby certify that the prices offered in the price quotation of this Bid exclude all taxes, duties and customs charges from which the Purchaser has been exempted by international agreement.

.....
Date

.....
Signature of Authorised Representative

.....
Title

.....
Company

Annex B-6. Comprehension and Acceptance of Contract Special and General Provisions

The Bidder hereby certifies that he has reviewed the Special Contract Provisions and the NCI Agency General Provisions set forth in the Prospective Contract, Book II of this Invitation for Bid. The Bidder hereby provides its confirmation that he fully comprehends the rights, obligations and responsibilities of the Contractor as set forth in the Articles and Clauses of the Prospective Contract. The Bidder additionally certifies that the offer submitted by the Bidder is without prejudice, qualification or exception to any of the Terms and Conditions and he will accept and abide by the stated Special and General Provisions if awarded the contract as a result of this Invitation for Bid.

.....
Date

.....
Signature of Authorised Representative

.....
Title

.....
Company

Annex B-7. Disclosure of Requirements for NCI Agency Execution of Supplemental Agreements

I, the undersigned, as an authorised representative of _____, certify the following statement:

All supplemental agreements, defined as agreements, documents and/or permissions outside the body of the Contract but are expected to be required by my Government, and the governments of my subcontractors, to be executed by the NCI Agency, or its legal successors, as a condition of my firm's performance of the Contract, have been identified, as part of the Bid.

These supplemental agreements are listed as follows:

Examples of the terms and conditions of these agreements have been provided in our Offer. The anticipated restrictions to be imposed on NATO, if any, have been identified in our offer along with any potential conflicts with the terms, conditions and specifications of the Prospective Contract. These anticipated restrictions and potential conflicts are based on our knowledge of and prior experience with such agreements and their implementing regulations. We do not certify that the language or the terms of these agreements will be exactly as we have anticipated.

The processing time for these agreements has been calculated into our delivery and performance plans and contingency plans made in the case that there is delay in processing on the part of the issuing government(s).

We recognise that additional supplemental agreements, documents and permissions presented as a condition of Contract performance or MOU signature after our firm would be selected as the successful Bidder may be cause for the NCI Agency, or its legal successors, to determine the submitted bid to be non-compliant with the requirements of the IFB;

We accept that should the resultant supplemental agreements issued in final form by the government(s) result in an impossibility to perform the Contract in accordance with its schedule, terms or specifications, the contract may be terminated by the Purchaser at no cost to either Party.

.....
Date

.....
Signature of Authorised Representative

.....
Title

.....
Company

Annex B-8. Certificate of Compliance AQAP 2110 or ISO 9001:2008 or Equivalent

I hereby certify that _____ (name of Company) possesses and applies Quality Assurance Procedures/Plans that are equivalent to the AQAP 2110 or ISO 9001:2008 as evidenced through the attached documentation².

Date

Signature of Authorised Representative

Printed Name

Title

Company

² Bidders must attach copies of any relevant quality certification.

Annex B-9. List of Prospective Major Subcontractors

Name and Address of Subcontractor	DUNS Number ³	Primary Location of Work	Items/Services to be Provided	Estimated Value of Subcontract

_____ Date

_____ Signature of Authorized Representative

_____ Printed Name

_____ Title

_____ Company

³ Data Universal Numbering System (DUNS). Bidders are requested to provide this data in order to help NCIA to correctly identify major (one that exceeds 15% of total contract value) Subcontractors. If a Subcontractor's DUNS is not known this field may be left blank.

Annex B-10. Bidder Background IPR

I, the undersigned, as an authorised representative of Bidder _____, warrant, represent, and undertake that:

- a. The Contractor Background IPR specified in the table below will be used for the purpose of carrying out work pursuant to the prospective Contract.

ITEM	DESCRIPTION

- b. The stated Bidder has and will continue to have, for the duration of the prospective Contract, all necessary rights in and to the Background IPR specified above.
- c. The Background IPR stated above complies with the terms specified in the Book II prospective contract General and Special Provisions.

Date

Signature of Authorised Representative

Printed Name

Title

Company

Annex B-11. List of Subcontractor IPR

I, the undersigned, as an authorised representative of Bidder _____, warrant, represent, and undertake that:

- a. The Subcontractor IPR specified in the table below will be used for the purpose of carrying out work pursuant to the prospective Contract.

ITEM	DESCRIPTION

- b. The stated Bidder has and will continue to have, for the duration of the prospective Contract, all necessary rights in and to the IPR specified above necessary to perform the Contractor’s obligations under the Contract.
- c. The Subcontractor IPR stated above complies with terms specified in the Book II prospective contract General and Special Provisions.

Date

Signature of Authorised Representative

Printed Name

Title

Company

Annex B-12. Certificate of Origin of Equipment, Services, and Intellectual Property

The Bidder hereby certifies that, if awarded the Contract pursuant to this solicitation, he will perform the Contract subject to the following conditions:

(a) none of the work, including project design, labour and services shall be performed other than by firms from and within participating NATO member countries;

(b) no material or items of equipment down to and including identifiable sub-assemblies shall be manufactured or assembled by a firm other than from and within a participating NATO member country. (A sub-assembly is defined as a portion of an assembly consisting of two or more parts that can be provisioned and replaced as an entity); and

(c) the intellectual property rights for all software and documentation incorporated by the prospective Contractor and/or its Sub-contractors into the work shall vest with persons or legal entities from and within NATO participating nations and no royalties or licence fees for such software and documentation shall be paid by the Contractor to any source that does not reside within a NATO participating nation

Date

Signature of Authorised Representative

Printed Name

Title

Company

Annex B-13. List of Proposed Key Personnel

Position	SOW Reference	Labour Category	Name	Designation Period
Project Manager	2.3.2.ii			EDC through Contract completion
Technical Lead	2.3.2.ii			EDC through Contract completion
Service Manager	2.3.2.ii			EDC through Contract completion

Date

Signature of Authorised Representative

Printed Name

Title

Company

Annex C Bid Guarantee - Standby Letter of Credit

Standby Letter of Credit Number:

Issue Date: _____

Beneficiary: NCI Agency, Financial Management Office
Boulevard Leopold III, B-1110, Brussels
Belgium

Expiry Date: _____

1. We, (issuing bank) hereby establish in your favour our irrevocable standby letter of credit number {number} by order and for the account of (NAME AND ADDRESS OF BIDDER) in the original amount of € 100,000 (One Hundred Thousand Euro). We are advised this Guarantee fulfils a requirement under Invitation for Bid IFB-CO-14311-BCA dated _____.

2. Funds under this standby letter of credit are available to you upon first demand and without question or delay against presentation of a certificate from the NCI Agency Contracting Officer that:

a) (NAME OF BIDDER) has submitted a Bid and, after Bid Closing Date (including extensions thereto) and prior to the selection of the lowest priced, technically compliant Bid, has withdrawn its Bid, or stated that he does not consider its Bid valid or agree to be bound by its Bid, or

b) (NAME OF BIDDER) has submitted a Bid determined by the Agency to be the lowest priced, technically compliant Bid, but (NAME OF BIDDER) has declined to execute the contract offered by the Agency, such contract being consistent with the terms of the Invitation for Bid, or

c) The NCI Agency has offered (NAME OF BIDDER) the contract for execution but (NAME OF BIDDER) has been unable to demonstrate compliance with the security requirements of the contract within a reasonable time, or

d) The NCI Agency has entered into the contract with (NAME OF BIDDER) but (NAME OF BIDDER) has been unable or unwilling to provide the Performance Guarantee required under the terms of the contract within the time frame required.

3. This Letter of Credit is effective the date hereof and shall expire at our office located at (Bank Address) on _____. All demands for payment must be made prior to the expiry date.

4. It is a condition of this letter of credit that the expiry date will be automatically extended without amendment for a period of sixty (60) calendar days from the current or any successive expiry date unless at least thirty (30) calendar days prior to the then

current expiry date the NCI Agency Contracting Officer notifies us that the Letter of Credit is not required to be extended or is required to be extended for a shorter duration.

5. We may terminate this letter of credit at any time upon sixty (60) calendar days notice furnished to both (NAME OF BIDDER) and the NCI Agency by registered mail.

6. In the event we (the issuing bank) notify you that we elect not to extend the expiry date in accordance with paragraph 4 above, or, at any time, to terminate the letter of credit, funds under this credit will be available to you without question or delay against presentation of a certificate signed by the NCI Agency Contracting Officer which states

“The NCI Agency has been notified by {issuing bank} of its election not to automatically extend the expiry date of letter of credit number {number} dated {date} pursuant to the automatic renewal clause (or to terminate the letter of credit). As of the date of this certificate, no suitable replacement letter of credit, or equivalent financial guarantee has been received by the NCI Agency from, or on behalf of (NAME OF BIDDER), and the NCI Agency, as beneficiary, hereby draws on the standby letter of credit number _____ in the amount of € (Amount up to the maximum available under the LOC), such funds to be transferred to the account of the Beneficiary number _____ (to be identified when certificate is presented).”

Such certificate shall be accompanied by the original of this letter of credit and a copy of the letter from the issuing bank that it elects not to automatically extend the standby letter of credit, or terminating the letter of credit.

7. The Beneficiary may not present the certificate described in paragraph 6 above until 20 (twenty) calendar days prior to a) the date of expiration of the letter of credit should {issuing bank} elect not to automatically extend the expiration date of the letter of credit, b) the date of termination of the letter of credit if {issuing bank} notifies the Beneficiary that the letter of credit is to be terminated in accordance with paragraph 6 above.

8. Multiple drawings are allowed.

9. Drafts drawn hereunder must be marked, “Drawn under {issuing bank} Letter of Credit No. {number}” and indicate the date hereof.

10. This letter of credit sets forth in full the terms of our undertaking, and this undertaking shall not in any way be modified, amended, or amplified by reference to any document, instrument, or agreement referred to herein (except the International Standby Practices (ISP 98) hereinafter defined) or in which this letter of credit is referred to or to which this letter of credit relates, and any such reference shall not be deemed to incorporate herein by reference any document, instrument, or agreement.

11. We hereby engage with you that drafts drawn under and in compliance with the terms of this letter of credit will be duly honoured upon presentation of documents to us on or before the expiration date of this letter of credit.

12. This Letter of Credit is subject to The International Standby Practices-ISP98 (1998 Publication) International Chamber of Commerce Publication No.590.

Annex D Clarification Request Form

INSERT COMPANY NAME HERE
INSERT SUBMISSION DATE HERE

INVITATION FOR BID
IFB-CO-14311-BCA

**Procurement of Hardware and Software under NATO Project “Replace NATO VLF
MSK Broadcast Control Authority (BCA)”**

Annex D CLARIFICATION REQUEST FORM

INSERT COMPANY NAME HERE
INSERT SUBMISSION DATE HERE

ADMINISTRATION or CONTRACTING				
Serial NR	IFB REF	QUESTION	ANSWER	Status
A.1.				
A.2.				
A.3.				
A.4.				

INSERT COMPANY NAME HERE
INSERT SUBMISSION DATE HERE

PRICE				
Serial NR	IFB REF	QUESTION	ANSWER	Status
P.1				
P.2				
P.3				
P.4				
P.5				
P.6				

INSERT COMPANY NAME HERE
INSERT SUBMISSION DATE HERE

TECHNICAL				
Serial NR	IFB REF	QUESTION	ANSWER	Status
T.1				
T.2				
T.3				

Annex E Bid-Requirements Cross Reference Matrix (BRCM)

Bidders shall complete the columns:

- “Bid Reference” indicating where in their Bid the associated Bid Instruction Reference is addressed. Bid Reference shall be provided in the form “Volume # - Doc # - Section #”

One copy of the duly completed BRCM shall be included in the Technical Proposal Package (Volume 3).

The Bidders shall note that the traceability between Bidding Instructions and the SOW (including annexes A, and B.) is not necessarily both ways. Therefore the Bidders shall indicate “n/a” (not applicable) in the BRCM as needed.

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.6 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>3.6.6.1 This Volume shall describe the Corporate Structure and organization of the Prime Contractor and the administration of the prospective BCA Replacement Systems Contract within the overall corporate structure. This Volume shall indicate the chain of authority within the Prime Contractor’s organisation from the Project Manager to the Chief Executive Officer.</p>	<p>Paragraph 4.4.4 Volume 1: Corporate Organisation/Capital Facilities</p> <p>4.4.4.1. The Bidder shall have proposed a Corporate Structure and organization of the Prime Contractor and the administration demonstrating that the BCA Replacement Systems Contract has high visibility within the overall corporate organisation. This Volume shall have indicated the chain of authority within the Prime Contractor’s organisation from the Project Manager to the Chief Executive Officer. The Corporate Structure described shall have adequate depth of resources with the overall corporate organisation to ensure a reserve capability in order to successfully perform the Contract.</p>	
<p>Paragraph 3.6.6 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>3.6.6.2 The Bidder shall describe the corporate resources (with posts or names) that are available to support the BCA Replacement Systems Contract that are resident in the organisation of the Prime Contractor but not directly under the authority of the Project Manager.</p>	<p>Paragraph 4.4.4 Volume 1: Corporate Organisation/Capital Facilities</p> <p>4.4.4.2. The Corporate Structure described shall have demonstrated that the Project Manager has sufficient authority and priority within the organisation to access in timely manner corporate resources that are not directly under his control as Project Manager.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.6 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>3.6.6.3 The Bidder shall describe the process by which the Project Manager may have access to these “in-house” corporate resources and what level of authority is required in the Corporation hierarchy to secure the needed resources.</p>	<p>Paragraph 4.4.4 Volume 1: Corporate Organisation/Capital Facilities</p> <p>4.4.4.3. The Bidder shall have described the process by which the Project Manager may have access to these “in-house” corporate resources and what level of authority is required in the Corporation hierarchy to secure the needed resources.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.6 – Volume 1:</p> <p>Corporate Organisation/Capital Facilities</p> <p>3.6.6.4 The Bidder shall provide evidence that the Proposed Project Manager and the Deputy Project Manager are experienced senior personnel with demonstrated capability in managing an acquisition programme of this magnitude. The positions shall have sufficient inherent authority and visibility in the overall corporate structure to properly execute the decisions that will be required to be made in the successful implementation of a project of this size and complexity.</p>	<p>Paragraph 4.4.4. Volume 1:</p> <p>Corporate Organisation/Capital Facilities</p> <p>4.4.4.4. The Bidder shall have provided the comprehensive Curriculum Vitae (CV) for the Project Manager proposed for this project and also the Deputy Project Manager (where applicable). The Bidder shall have provided a narrative describing the rationale for the selection of these individuals for these posts and have provided detailed descriptions of the experience of the individuals in managing procurement programmes of this magnitude. This Volume shall have described the authority and responsibility (and the limits) of the Project Manager and the Deputy Project Manager within the overall corporate organisation. The narrative shall have described the circumstances at which the Project Manager must refer decision-making authority to the next level of corporate management.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.6 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>3.6.6.5 The Bidder shall describe the responsibilities of its Project Management Office (PMO) and describe the associated staffing and resources.</p>	<p>Paragraph 4.4.4. Volume 1: Corporate Organisation/Capital Facilities</p> <p>4.4.4.4.6 The Bidder shall have described the responsibilities of its Project Management Office (PMO) and described the associated staffing and resources. The description of the staffing and resources shall have covered everything needed to conduct and support the management and administration of operations in order to meet the objectives of the project, including taking all reasonable steps to ensure continuity of personnel assigned to work on this project.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.6 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>3.6.6.6 The Bidder shall identify his major proposed prospective sub-Contractors for the BCA Replacement Systems, in compliant with Book I Annex B-9. The Bidder shall also submit a detailed and thorough subcontracting plan that identifies subcontractors/sub-vendors and their areas of responsibility/delivery. The plan shall also demonstrate that the prospective sub-contractor(s) will agree to abide by the requirements of the prime contract.</p>	<p>Paragraph 4.4.4. Volume 1: Corporate Organisation/Capital Facilities</p> <p>4.4.4.6. The Bidder shall have identified his major proposed prospective sub-Contractors for the BCA Replacement Systems, as stated in Book I Annex-B-9. The Bidder shall have also submitted a detailed and thorough sub-Contracting plan that identifies major subcontractors/sub-vendors and their areas of responsibility/delivery. The plan shall have agreed with the Project Control Plan, in that delivery of sub-Contracted items and assemblies, critical components is identified. The plan shall have demonstrated that the Bidder can effectively manage, monitor and control the proposed sub-Contractors and that the sub-Contractors will agree to abide by the requirements of the prime Contract as pertains to flow-down provisions. Such a declaration of sub-contractors to abide by the requirements of the prime contract shall have been available in the Bidder’s proposal.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.6 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>3.6.6.7 The Bidder shall include a draft copy of the proposed sub-Contract and a summary of the supplies and or/services to be furnished by the prospective sub-contractor. The Bidder shall include a letter of intent from the proposed sub-Contractor that details its willingness to enter into a sub-Contract with the Bidder if the Bidder shall receive award of the BCA Replacement Systems Contract.</p>	<p>Paragraph 4.4.4. Volume 1: Corporate Organisation/Capital Facilities</p> <p>4.4.4.7. The Bidder shall have included a draft copy of the proposed sub-contract, as applicable. The Bidder shall have included a letter of intent from the proposed sub-contractor that details its willingness to enter into a sub-contract with the Bidder if the Bidder shall receive award of the BCA Replacement Systems Contract and a summary of the supplies and/or services to be furnished by the prospective sub-contractor.</p>	
<p>Paragraph 3.6.6 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>3.6.6.8 With regard to major sub-contracts, the Bidder shall identify those items that are sub-contracted (assemblies and sub-assemblies) and that are considered to be on the “Critical Path” to meeting the delivery schedule of the Contract.</p>	<p>Paragraph 4.4.4. Volume 1: Corporate Organisation/Capital Facilities</p> <p>4.4.4.8. With regard to major sub-Contracts, the Bidder shall have identified those items that are sub-Contracted (assemblies and sub-assemblies) and that are considered to be on the “Critical Path” to meeting the delivery schedule of the Contract.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.6 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>3.6.6.9 For these sub-contracted items, the Bidder shall provide a rationale for the selection of the sub-contracted vendor, and an analysis of the vendor. The Bidder shall provide a description of possible alternative sources of supply should the selected sub-contractor fail to deliver the required items within the time schedule.</p>	<p>Paragraph 4.4.4. Volume 1: Corporate Organisation/Capital Facilities</p> <p>4.4.4.9. The Bidder shall have provided a description of the parts of the project that he intends to sub-contract and demonstrate that the chosen subcontractors have adequate assets and capacity to fulfil their role to that they have been allocated. The Bidder shall have demonstrated that such subcontracted facilities and assets are available to meet the anticipated schedule, and have provided sufficient alternative arrangements in case of the failure to deliver of critical sub-contracted items.</p>	
<p>Paragraph 3.6.6 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>3.6.6.10 The Bidder shall provide a sub-section that identifies the items (assemblies, sub-assemblies) and services that are to be fabricated and/or performed by the Corporate resources of the Prime Contractor.</p>	<p>Paragraph 4.4.4. Volume 1: Corporate Organisation/Capital Facilities</p> <p>4.4.4.10. The Bidder shall have provided a sub-section that identifies the items (assemblies, sub-assemblies) and services that are to be fabricated and/or performed by the Corporate resources of the Prime Contractor.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.6 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>3.6.6.11 The Bidder shall identify the location of the production facilities that will be utilized, and/or the source within the corporate organisation of the services and expertise required.</p>	<p>Paragraph 4.4.4 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>4.4.4.11 The Bidder shall have identified the location of the production facilities that will be utilized, and/or the source within the corporate organisation of the services and expertise required. For corporate production facilities, the Bidder shall have provided analytical evidence that adequate capacity exists in order that the required items may be made within the time schedule of the Prospective Contract.</p>	
<p>Paragraph 3.6.6 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>3.6.6.12 The Bidder shall show existing capital assets and provide a detailed proposal of what additional equipment or facilities will be acquired or constructed in order to meet the Contract schedule.</p>	<p>Paragraph 4.4.4 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>4.4.4.12 The Bidder shall have demonstrated existing capital assets and provide a detailed proposal of what additional equipment or facilities will be acquired or constructed in order to meet the Contract schedule.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.6 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>3.6.6.13 The Bidder shall further provide a description of any retooling efforts required and a time forecast of when these efforts can be completed.</p>	<p>Paragraph 4.4.4 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>4.4.4.13 The Bidder shall further have provided a description of any retooling efforts required and a time forecast of when these efforts can be completed.</p>	
<p>Paragraph 3.6.6 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>3.6.6.14 The Bidder shall describe the distribution, warehousing, or order-processing capabilities the Bidder has that enables it to provide efficient and prompt delivery of hardware in satisfaction of short-notice or unpredictable customer orders.</p>	<p>Paragraph 4.4.4 – Volume 1: Corporate Organisation/Capital Facilities</p> <p>4.4.4.14 The Bidder shall have described the distribution, warehousing, or order-processing capabilities the Bidder has that enables it to provide efficient and prompt delivery of hardware in satisfaction of short-notice or unpredictable customer orders. The description must have provided sufficient evidence to confirm that the Bidder will be able to meet the timelines and other shipment and task requirements of the SOW.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.7 – Volume 2: Corporate Experience</p> <p>3.6.7.1 The Bidder shall detail his experience in the design, development, fabrication, installation, maintenance and support of Defence Communication and Information (CIS) Systems Specifically, the Bidder shall describe:</p>	<p>Paragraph 4.4.5 Volume 2: Corporate Experience</p> <p>4.4.5.1 The Bidder shall have been an established systems developer having substantial experience in the last three (3) years in the design, manufacturing, installation, maintenance and support of Defence Communication and Information Systems (CIS).</p>	
<p>Paragraph 3.6.7 – Volume 2: Corporate Experience</p> <p>3.6.7.2 The Bidder shall detail his experience over the last three (3) years in the design, manufacture and installation of CIS defence systems in general.</p>	<p>Paragraph 4.4.5 Volume 2: Corporate Experience</p> <p>4.4.5.2 The Bidder shall have demonstrated that he has delivered within the last three (3) years, or is under Contract to deliver CIS Defence Systems. Alternatively, the Bid shall be based on an existing design that has been operationally tested and the test results certified by national authorities. The design need not be identical to the requirements of this Contract but must be of sufficient similarity that cardinal modifications to the basic design will not have to be undertaken, thus increasing the confidence of the Bidder's ability to deliver within schedule.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.7 – Volume 2: Corporate Experience</p> <p>3.6.7.3 The Bidder shall detail his experience of the Bidder over the last three (3) years in the maintenance and support of similarly sized CIS Systems.</p>	<p>Paragraph 4.4.5 Volume 2: Corporate Experience</p> <p>4.4.5.3 The Bidder shall have demonstrated the experience over the last three (3) years in the maintenance and support of similarly sized Defence CIS Systems.</p>	
<p>Paragraph 3.6.7 – Volume 2: Corporate Experience</p> <p>3.6.7.4 The Bidder shall detail his experience in delivery of a defence system as offered in its proposal that has been delivered and accepted within the last three (3) years, or that the Bidder is currently under Contract to deliver such system.</p>	<p>Paragraph 4.4.5 Volume 2: Corporate Experience</p> <p>4.4.5.4 The Bidder shall have documented that it has delivered a CIS defence system as offered in its proposal and gained acceptance in the last three (3) years, or be currently under contract to deliver such system in an operational capacity. In this sense, “operational capacity” shall not include a current research and development contract or a contract for prototype system(s) but a system to be used and operated as part of a National and/or NATO communications system.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.7 – Volume 2: Corporate Experience</p> <p>3.6.7.5 The Bidder shall demonstrate that its sub-contracted source(s) for critical items have the same level of experience for their respective areas of expertise as is required of the Prime Contractor. Corporate experience encompasses sub-contractors.</p>	<p>Paragraph 4.4.5 Volume 2: Corporate Experience</p> <p>4.4.5.5 The Bidder shall have provided the same information required above for the major sub-contractors for critical assemblies and subassemblies. The sub-contractors need not be manufacturers of the CIS Systems as a whole, but must demonstrate the level of experience for which they are proposed to deliver or services for which they are proposed to perform.</p>	
<p>Paragraph 3.6.7 – Volume 2: Corporate Experience</p> <p>3.6.7.6 The Bidder shall describe its experience and expertise in providing warranty support and repair-and-replacement service for similar Defence CIS systems for large, geographically-dispersed organisations.</p>	<p>Paragraph 4.4.5. Volume 2: Corporate Experience</p> <p>4.4.5.6 The Bidder shall have described its experience and expertise in providing warranty support and repair-and-replacement service for similar Defence CIS systems for large, geographically-dispersed organisations. The bidder shall have proven his experience and expertise for warranty support and repair and replacement service with required documentation.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.7 – Volume 2: Corporate Experience</p> <p>3.6.7.7. The bidder shall confirm his and his subcontractor’s experience in providing the implementation + warranty demonstrating examples of work performed for either other NATO or National Contracts.</p>	<p>Paragraph 4.4.5 Volume 2: Corporate Experience</p> <p>4.4.5.7. The bidder shall have confirmed his and his subcontractor’s experience in providing implementation + warranty in demonstrating examples of work performed for either other NATO or National Contracts.</p>	
<p>Paragraph 3.6.7 – Volume 2: Corporate Experience</p> <p>3.6.7.8. Individual skill and experience: The Bidder shall provide resumes of the proposed individuals to perform the technical tasks under the proposed Work Packages and the resumes of the individuals designated as Key Personnel in Annex B-13.</p>	<p>Paragraph 4.4.5 Volume 2: Corporate Experience</p> <p>4.4.5.8. Individual skill and experience: The Bidder shall have provided resumes of the proposed individuals to perform the technical tasks under the proposed Work Packages and the resumes of the individuals designated as Key Personnel in Annex B-13. For each role identified, the resumes shall have demonstrated that they have the expected knowledge, capability and experience to meet the requirements of this Contract.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8 The Preliminary PIP shall provide detailed descriptions of how the proposed design will meet each of the specific requirements of the IFB.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6 Bidders shall have demonstrated that the Preliminary PIP provides detailed descriptions of how the proposed design will meet each of the specific requirements of the IFB.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3:</p> <p>Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.2. PIP Section 1: Project Management and Control Plan (PMCP)</p> <p>3.6.8.2.1 The Bidder shall develop a preliminary Project Management and Control Plan (PMCP) in accordance with Statement of Work (SOW) paragraph 2.3 of the Prospective Contract. This plan shall identify the significant tasks required to be accomplished and the items to be delivered in the execution of the contract. The Plan will centre on a preliminary Project Work Breakdown Structure (PWBS) and supporting charts in accordance with SOW paragraph 2.3 of the Prospective Contract.</p>	<p>Paragraph 4.4.6. Volume 3:</p> <p>Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.1. PIP Section 1: Project Management and Control Plan (PMCP)</p> <p>4.4.6.1.1 The Bidder shall have submitted a preliminary Project Management and Control Plan (PMCP) that conforms with the requirements of SOW paragraph 2.3 of the Prospective Contract. This plan shall have identified the significant tasks required to be accomplished and the items to be delivered in the execution of the Contract. The preliminary Project Work Breakdown Structure (PWBS), the preliminary Project Master Schedule (PMS) and supporting charts shall have thoroughly described the steps necessary to achieve delivery of the BCA Replacement Systems within the Contract terms and schedule. The preliminary PMCP shall have been logical and realistic, demonstrating the Bidder’s appreciation of the complexity of the Project and his experience in managing large programmes.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.2. PIP Section 1: Project Management and Control Plan (PMCP)</p> <p>3.6.8.2.2. The Contractor shall also develop a preliminary Project Master Schedule (PMS) in accordance with SOW paragraph 2.3 of the Prospective Contract, that shall contain all contract events and milestones.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.1. PIP Section 1: Project Management and Control</p> <p>4.4.6.1.2 The Contractor shall also have developed a preliminary Project Master Schedule (PMS) in accordance with SOW paragraph 2.3 of the Prospective Contract that shall contain all Contract events and milestones. The PMS shall have correlated with the PWBS. The PMS shall have included activity network, activity GANTT / Program Evaluation Review Technique (PERT) charts, milestone, and critical path views of the project schedule, showing detailed and high level schedules with associated resources. This Plan shall have been detailed to the level at which all deliverable items required under the Contract are identified and accounted for by a work path that shows the interconnectivity of the various task.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.2. PIP Section 1: Project Management and Control Plan (PMCP).</p> <p>3.6.8.2.3 The Bidder shall demonstrate the realism of approach to accomplish the work within the time schedule defined in the IFB.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.1. PIP Section 1: Project Management and Control.</p> <p>4.4.6.1.3The Bidder shall have demonstrated the realism of approach to accomplish the work within the time schedule defined in the IFB. The Bidder shall have submitted a PMCP compliant with BOOK II Part I and the Gantt/PERT diagrams, set forth in BOOK II Part I.</p>	
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.2. PIP Section 1: Project Management and Control Plan (PMCP).</p> <p>3.6.8.2.4 In PMS, the relationship between the Work Packages and project deliverables shall be clearly demonstrated as well as the schedule of sub-contracted performance.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.1. PIP Section 1: Project Management and Control.</p> <p>4.4.6.1.4 In PMS, the relationship between the Work Packages and project deliverables shall have been clearly demonstrated as well as the schedule of sub-Contracted performance and deliveries shall have been clearly integrated into this Plan.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.2. PIP Section 1: Project Management and Control Plan (PMCP).</p> <p>3.6.8.2.5 This preliminary PMCP shall also consider all aspects of project management and control and shall demonstrate how all the critical milestones defined in the BOOK II Part I Section 2 will be met.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.1. PIP Section 1: Project Management and Control.</p> <p>4.4.6.1.5 This preliminary PMCP shall also have considered all aspects of project management and control and shall have demonstrated how all the critical milestones defined in the BOOK II Part I Section 2 will be met.</p>	
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.2. PIP Section 1: Project Management and Control Plan (PMCP).</p> <p>3.6.8.2.6 The Bidder shall not alter or amend the dates for Milestones (BOOK II Part I).</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.1. PIP Section 1: Project Management and Control.</p> <p>4.4.6.1.6 The Bidder shall have not altered or amended the dates for Milestones (BOOK II Part I). These dates shall have been incorporated into the resultant Contract of the successful Bidder.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.2. PIP Section 1: Project Management and Control.</p> <p>3.6.8.2.7 The Bidder shall demonstrate the realism of approach to accomplish the work within the time schedule defined in the IFB. The dates set forth in BOOK II Part I shall be fully supported and coherent by/with the Gantt/PERT diagrams as well as the PWBS.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.1. PIP Section 1: Project Management and Control.</p> <p>4.4.6.1.7 The Bidder shall have demonstrated the realism of approach to accomplish the work within the time schedule defined in the IFB The dates set forth in BOOK II Part I shall have been fully supported and coherent by/with the Gantt/PERT diagrams as well as the PWBS. Separately, Bidders may propose earlier delivery dates than those stated in BOOK II Part I. Where dates offered are earlier than those set forth in the Prospective Contract, the Purchaser may, at its discretion, accept such dates and the alternative Milestone Schedule will be inserted in the resultant contract.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.2. PIP Section 1: Project Management and Control.</p> <p>3.6.8.2.8 The Bidder shall demonstrate that he has taken into account the constraints of the implementation environment and reflect this understanding in his draft preliminary Project Management and Control Plan.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.1. PIP Section 1: Project Management and Control.</p> <p>4.4.6.1.8 The Bidder shall have demonstrated that he has taken into account the constraints of the implementation environment and reflected this understanding in his Draft preliminary Project Management and Control Plan.</p>	
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.3. PIP Section 2: System Engineering and Design.</p> <p>3.6.8.3.1 In this Volume, the Bidder shall submit a preliminary System Engineering and Design Plan) including a preliminary System Safety Engineering Plan as sub plan, describing the preliminary design of the proposed System.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.2. PIP Section 2: System Engineering and Design.</p> <p>4.4.6.2.1 The Bidder shall have submitted a Preliminary System Engineering and Design Plan, describing the preliminary design of the proposed System and including a preliminary System Safety Engineering Plan as sub-plan, that conform with the requirements of SOW Section 4 of the Prospective Contract.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.3. PIP Section 2: System Engineering and Design.</p> <p>3.6.8.3.2 The Bidder shall support his design with such information as to convincingly demonstrate that the proposed design will meet the safety and security requirements as set forth in SOW Section 4 and Volume 5 of the Prospective Contract as well as functional and technical requirements as set forth in SOW Annex A, and Annex-B of the Prospective Contract.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.2. PIP Section 2: System Engineering and Design.</p> <p>4.4.6.2.2 The Bidder shall have supported this design with such information as to convincingly demonstrate that the proposed design will meet the safety and security requirements as set forth in SOW Section 4 and Volume 5 of the Prospective Contract as well as functional and technical requirements as set forth in SOW Annex A, and Annex-B of the Prospective Contract. Bidder’s technical proposed design shall have provided detailed information on how the Bidder intends to meet performance, functional or architectural requirements defined in the IFB. Failure to provide detailed technical information any of the bidding requirements or omission of the critical information may result in a determination of non-compliance for the entire Bid.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.3. PIP Section 2: System Engineering and Design.</p> <p>3.6.8.3.3 The Preliminary System Engineering and Design Plans shall provide detailed descriptions of how the proposed designs of both projects shall meet each of the specific performance requirements/parameters.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.2. PIP Section 2: System Engineering and Design.</p> <p>4.4.6.2.3 The Preliminary System Engineering and Design Plans shall have provided detailed descriptions of how the proposed designs of both projects shall have met each of the specific performance requirements/parameters of the areas detailed at SOW paragraph 4.2 of the Prospective Contract.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.3. PIP Section 2: System Engineering and Design.</p> <p>3.6.8.3.5 The Preliminary System Engineering and Design Plan shall demonstrate that the system as delivered will meet the safety and security requirements.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.2. PIP Section 2: System Engineering and Design.</p> <p>4.4.6.2.4 The Preliminary System Engineering and Design Plan shall have contained as much detail as is practicable in order to demonstrate that the system as delivered will meet the safety and security requirements as set forth in SOW Section 4 and SOW Section 5 of the Prospective Contract as well as functional and technical requirements as set forth in SOW Annex A, and Annex-B of the Prospective Contract.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.3. PIP Section 2: System Engineering and Design.</p> <p>3.6.8.3.6 The Bidder shall describe the Bidder’s approach to preparing and maintaining the Engineering Documentation Package.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.2. PIP Section 2: System Engineering and Design.</p> <p>4.4.6.2.5 The Bidder shall have described the Bidder’s approach to preparing and maintaining the Engineering Documentation Package throughout the design, integration, test and site surveys activities, ensuring consistency between all the documents included in that documentation package.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.3. PIP Section 2: System Engineering and Design.</p> <p>3.6.8.3.7 The Bidder shall provide equipment specification for each capability separately as specified at Book I paragraph 4.4.6.2.6.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.2. PIP Section 2: System Engineering and Design.</p> <p>4.4.6.2.6 For each Hardware Contract Line Item Number (CLIN); the Bidder shall have included in his bid a detailed list of the COTS components proposed to be supplied as part of that CLIN. The product name, manufacturer name, and manufacturer’s part number, version, or release number shall have been stated. If a generic or non-vendor specific component is proposed, the Bidder shall have provided the item name.</p> <p>And;</p> <p>4.4.6.2.7 The Bidder shall have included in his bid a detailed specification sheet for each item of equipment the Bidder proposes to provide in satisfaction of contractual requirements.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.3. PIP Section 2: System Engineering and Design.</p> <p>3.6.8.3.8 The Bidder shall furnish drawings, diagrams and specifications.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.2. PIP Section 2: System Engineering and Design.</p> <p>4.4.6.2.8 The Bidder shall have furnished drawings, diagrams and specifications. If the proposed BCA Replacement Systems are based on a design that has been tested and the results certified by a national authority, the test performance data shall also have been provided and data projections included for elements that were not tested.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.3. PIP Section 2: System Engineering and Design.</p> <p>3.6.8.3.9 The Bidder shall provide predicted performance characteristics and specifications based on engineering analysis and/or extrapolations from previous data.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.2. PIP Section 2: System Engineering and Design.</p> <p>4.4.6.2.9 The Bidder shall have provided predicted performance characteristics and specifications based on engineering analysis and/or extrapolations from previous data. and;</p> <p>4.4.6.2.10 Bidder’s technical proposed designs for BCA Replacement systems shall have provided detailed information on how the Bidder intends to meet performance, functional or architectural requirements defined in the SOW and all Annexes. Failure to provide detailed technical information any of the bidding requirements or omission of the critical information may result in a determination of non-compliance for the entire Bid.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.3. PIP Section 2: System Engineering and Design.</p> <p>3.6.8.3.10 Bidder shall provide assurance that they understand both the requirements on the isolator functionality and viable methods for attaining accreditation for their solution in accordance with SOW Section 5 and SOW Annex A. Failure to provide detailed technical information of these sensitive bidding requirements or omission of any critical information may result in a determination of non-compliance for the entire Bid.</p>	<p>Paragraph 4.4.6 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.2. PIP Section 2: System Engineering and Design.</p> <p>4.4.6.2.11 Bidder shall have provided assurance that they understand both the requirements stated on the isolator functionality and viable methods for attaining accreditation for their solution in accordance with SOW Section 5 and SOW Annex A. Failure to provide detailed technical information of these sensitive bidding requirements or omission of any critical information may result in a determination of non-compliance for the entire Bid.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.3. PIP Section 2: System Engineering and Design.</p> <p>3.6.8.3.11 The Bidder shall agree to abide by and implement the security mechanism as defined in the NATO Security Policy and supporting directives as per the IFB references.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.2. PIP Section 2: System Engineering and Design.</p> <p>4.4.6.2.12 The Bidder shall have agreed to abide by and implement the security mechanism as defined in the NATO Security Policy and supporting directives as per the Volume 5 of the SOW.</p>	
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP).</p> <p>3.6.8.3. PIP Section 2: System Engineering and Design.</p> <p>3.6.8.3.12 The Bidder shall propose automated tools to process classified data and information, that shall meet the respective performance and security requirements as stated at Volume 5 of the SOW.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP).</p> <p>4.4.6.2. PIP Section 2: System Engineering and Design.</p> <p>4.4.6.2 13 The Bidder shall have proposed automated tools to process classified data and information that shall meet the respective performance and security requirements. as stated at Volume 5 of the SOW.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.3. PIP Section 2: System Engineering and Design.</p> <p>3.6.8.3.13 This Section (security related) shall be submitted as a self-contained volume or volumes of the Technical Proposal and shall be segregated from the other materials insofar as the nature of the responses will be subject to Security Classification.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.2. PIP Section 2: System Engineering and Design.</p> <p>4.4.6.2.14 This Section related to security shall have been submitted as a self-contained volume or volumes of the Technical Proposal and shall have been segregated from the other materials insofar as the nature of the responses will be subject to Security Classification.</p>	
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.3. PIP Section 2: System Engineering and Design..</p> <p>3.6.8.3.14 The Bidder shall demonstrate and confirm that the hardware and software to be procured in accordance with this IFB meets the specifications as defined in SOW Annex A and SOW Annex B.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.2. PIP Section 2: System Engineering and Design</p> <p>4.4.6.2.15 The Bidder shall have demonstrated and confirmed that the hardware and software to be procured in accordance with this IFB meets the specifications as defined in SOW Annex A.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.3. PIP Section 2: System Engineering and Design.</p> <p>3.6.8.3.15 The Bidder shall describe the Bidder’s Risk Assessment including proposing any appropriate change requests against the Functional Baseline.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.2. PIP Section 2: System Engineering and Design.</p> <p>4.4.6.2.16 The Bidder shall have described the Bidder’s Risk Assessment including proposing any appropriate change requests against the Functional Baseline.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.4. PIP Section 3: Quality Assurance (QA).</p> <p>3.6.8.4.1 The Bidder shall provide information sufficient to demonstrate that the Quality Assurance and Quality Control (QA/QC) Programme meets the requirements of the Prospective Contract. The Bidder shall provide certification confirming that the Quality Programme meets the equivalent national and/or international standards.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.3. PIP Section 3: Quality Assurance (QA).</p> <p>4.4.6.3.1 The Bidder shall have submitted a preliminary version of the Quality Assurance/Quality Control (QA/QC) Plan in accordance with SOW Section 6 of the Prospective Contract. Within this plan, the Bidder shall have addressed all the requirements of the Contract concerning QA and QC as set forth in Article 25 of the Contract Special Provisions and SOW Section 6 of the Prospective Contract. The Bidder shall have also identified the QA/QC systems that he intended to apply to the performance of this contract and shall demonstrate that his choice complies with the applicable requirements.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3:</p> <p>Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.4. PIP Section 3: Quality Assurance (QA.)</p> <p>3.6.8.4.2 The Bidder shall also describe the QA/QC organisation of his Company and the position it occupies within the management structure of the Company. This shall include the proposed overall QA Manager as well as detailing how the Software, Hardware and Documentation aspects of QA Management shall be exercised.</p>	<p>Paragraph 4.4.6 Volume 3:</p> <p>Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.3. PIP Section 3: Quality Assurance (QA).</p> <p>4.4.6.3.2 The Bidder shall have provided that the QA/QC organization in his company has enough competence with demonstrated capability in managing Quality Programme of a project of this magnitude. The QA/QC organization and the QA Manager have sufficient inherent authority and visibility in the overall corporate structure to properly execute the Software, Hardware and Documentation aspects of QA Management of a project of this size and complexity.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.4. PIP Section 3: Quality Assurance (QA).</p> <p>3.6.8.4.3 The proposed Quality Assurance / Quality Control Plan shall show how procedures are developed, implemented and maintained to adequately control the design, integration, production, purchasing, installation, inspection, testing, configuration management and customer support of all services and all products (both management products and specialist products), in accordance with the requirements of this Contract.</p>	<p>Paragraph 4.4.6 Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.3. PIP Section 3: Quality Assurance (QA).</p> <p>4.4.6.3.3 The proposed Quality Assurance / Quality Control Plan shall have demonstrated how procedures are developed, implemented and maintained to adequately control the design, integration, production, purchasing, installation, inspection, testing, configuration management and customer support of all services and all products (both management products and specialist products), in accordance with the requirements of this Contract.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.4. PIP Section 3: Quality Assurance (QA).</p> <p>3.6.8.4.4 The proposed QA/QC Plan shall describe the quality criteria that will be applied to each of the deliverables under this contract (i.e. the documentation as well as the system and all of its components).</p>	<p>Paragraph 4.4.6 Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.3. PIP Section 3: Quality Assurance (QA).</p> <p>4.4.6.3.4 The proposed QA/QC Plan shall have described the quality criteria that will be applied to each of the deliverables under this contract (i.e. the documentation as well as the system and all of its components).</p>	
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.4. PIP Section 3: Quality Assurance (QA).</p> <p>3.6.8.4.5 The proposed QA/QC Plan shall describe the Bidder’s internal process for the quality review of the deliverables before their release to the Purchaser.</p>	<p>Paragraph 4.4.6 Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.3. PIP Section 3: Quality Assurance (QA).</p> <p>4.4.6.3.5 The proposed QA/QC Plan shall have described the Bidder’s internal process for the quality review of the deliverables before their release to the Purchaser.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.4. PIP Section 3: Quality Assurance (QA).</p> <p>3.6.8.4.6 The proposed Quality Plan shall describe how all necessary assistance shall be provided to the Quality Assurance Representative or his delegated National QAR, and how quality records for the prime and any Sub-contractors or consortium members shall be made available for evaluation.</p>	<p>Paragraph 4.4.6 Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.3. PIP Section 3: Quality Assurance (QA).</p> <p>4.4.6.3.6 The proposed Quality Plan shall have described how all necessary assistance shall be provided to the Quality Assurance Representative or his delegated National QAR, and how quality records for the prime and any Sub-contractors or consortium members shall be made available for evaluation.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.4. PIP Section 3: Quality Assurance (QA).</p> <p>3.6.8.4.7 The Bidder shall clearly indicate the Quality-related activities, responsibilities, and controls for the prime and any Sub-contractors and shall state how he intends to ensure compliance of his prospective sub-Contractors and, as applicable, of the prospective suppliers of Commercial-Off-The-Shelf (COTS) equipment with QA/QC requirements of the SOW of the Prospective Contract.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.3. PIP Section 3: Quality Assurance (QA).</p> <p>4.4.6.3.7 The Bidder shall have provided information similar to that set forth in BOOK I paragraph 4.4.6.c.above in order to demonstrate the conformance to the QA/QC contract requirements by the major sub-contractors and suppliers and shall have stated how he intends to ensure compliance of his prospective sub-Contractors and, as applicable, of the prospective suppliers of Commercial-Off-The-Shelf (COTS) equipment with QA/QC requirements of the SOW of the Prospective Contract.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.5. PIP Section 4: Configuration Management.</p> <p>3.6.8.5.1 The Bidder shall provide a preliminary version of the Bidder’s Configuration Management (CM) Plan for BCA Replacement in accordance with SOW Section 7 of the Prospective Contract that shall detail the processes, methods and procedures that would be used to implement the requirements as set forth in the SOW of the Prospective Contract.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.4. PIP Section 4: Configuration Management.</p> <p>4.4.6.4.1 The Bidder shall have submitted a preliminary Configuration Management Plan for BCA Replacement that conforms with the requirements of SOW Section 7 of the Prospective Contract. The Bidder shall have demonstrated that his proposed Configuration Management procedures meet the requirements of SOW Section 7 of the Prospective Contract. The Bidder shall further provide details of his existing CM organization.</p>	
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.5. PIP Section 4: Configuration Management.</p> <p>3.6.8.5.2 The Bidder shall outline how he adopts the Configuration Management processes and deliverables to the scope of this contract as requested in the SOW Section 7.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.4. PIP Section 4: Configuration Management.</p> <p>4.4.6.4.2 The Bidder shall have outlined how he adopts the Configuration Management processes and deliverables to the scope of this contract as requested in the SOW Section 7.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.5. PIP Section 4: Configuration Management.</p> <p>3.6.8.5.3 The Bidder shall demonstrate that the various baselines referred under SOW Section 7 will be established using automated tools.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.4. PIP Section 4: Configuration Management.</p> <p>4.4.6.4.3 The Bidder shall have demonstrated that the various baselines referred under SOW paragraph 7.5 will be established using automated tools.</p>	
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.5. PIP Section 4: Configuration Management.</p> <p>3.6.8.5.4 In addition, the Bidder shall demonstrate that a Configuration Status Accounting (CSA) database will be maintained using software tools during the Contract.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.4. PIP Section 4: Configuration Management.</p> <p>4.4.6.4.4 In addition, the Bidder shall have demonstrated that a Configuration Status Accounting (CSA) database will be maintained using software tools during the Contract.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.5. PIP Section 4: Configuration Management.</p> <p>3.6.8.5.5 The Bidder shall describe the Bidder’s approach to conduct the Physical Configuration Audit for each site, including the verification of delivered configuration items against the Product Baseline.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.4. PIP Section 4: Configuration Management.</p> <p>4.4.6.4.5 The Bidder shall have described the Bidder’s approach to conducting the Physical Configuration Audit for each site, including the verification of delivered configuration items against the Product Baseline.</p>	
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.5. PIP Section 4: Configuration Management.</p> <p>3.6.8.5.6 The Bidder shall provide, as part of the CM Plan, A project specific, Configuration Control process description; an initial set of project specific Configuration Item selection criteria for the capabilities; an initial set of project specific Configuration Items (CI) including their attributes and relationships among each other for the Capabilities.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.4. PIP Section 4: Configuration Management.</p> <p>4.4.6.4.6 The Bidder shall have provided, as part of the CM Plan, A project specific, Configuration Control process description; an initial set of project specific Configuration Item selection criteria for the capabilities; an initial set of project specific Configuration Items (CI) including their attributes and relationships among each other for the Capabilities.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.6. PIP Section 5: Integrated Logistics Support.</p> <p>3.6.8.6.1 The Bidder shall provide a high level description of the proposed Integrated Logistics Support Plan. This plan shall cover the requirements of the Prospective Contract as set forth in Volume 8 of the Statement of Work.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.5. PIP Section 5: Integrated Logistics Support.</p> <p>4.4.6.5.1 The Bidder shall have provided a high level description of the proposed Integrated Logistics Support Plan. This plan shall have covered the requirements of the Prospective Contract as set forth in Section 8 of the Statement of Work.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.6. PIP Section 5: Integrated Logistics Support.</p> <p>3.6.8.6.2 The Bidder shall describe his approach to the BCA Replacement systems maintenance and Supply Support for both hardware and software and shall describe how he will meet the requirements in accordance with SOW paragraph 8.1 to 8.13 of the SOW of the Prospective Contract. The Bidder shall describe the proposed spares provisioning methodology.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.5. PIP Section 5: Integrated Logistics Support.</p> <p>4.4.6.5.2 The Bidder shall have described his approach and how he will meet the requirements for the BCA Replacement systems maintenance and Supply Support for both hardware and software in accordance with SOW paragraph 8.1 to 8.13 of the Prospective Contract. The Bidder shall have described the proposed spares provisioning methodology.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.6. PIP Section 5: Integrated Logistics Support.</p> <p>3.6.8.6.3 The Bidder shall prepare draft Customer Support Concept and outline how he adopts the Support processes and deliverables to the scope of this contract.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.5. PIP Section 5: Integrated Logistics Support.</p> <p>4.4.6.5.3 The Bidder shall have prepared draft Customer Support Concept and outlined how he adopts the Support processes and deliverables to the scope of this contract. The Bidder shall have provided as part of the following Draft Support Concept:</p> <p>A project specific, Problem Management process description including all Bidder resources (number and labour categories of staff, nature and quantities of any other required resources) that he will use to provide this 2nd Level Support;</p> <p>A “Problem Analysis Report”- Template.;</p> <p>Draft Maintenance Concept. The Bidder shall outline how he adapts the Maintenance processes and deliverables to the scope of this contract.;</p> <p>Draft Transportation Plan. The Bidder shall outline how he adapts the Transportation processes and deliverables to the scope of this contract.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.7. PIP Section 6: Test and Evaluation.</p> <p>3.6.8.7.1 The bidder shall describe in detail his approach to develop test and evaluation documentation.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.6. PIP Section 6: Test and Evaluation.</p> <p>4.4.6.6.1 The bidder shall have described in detail his approach to developing test and evaluation documentation.</p>	
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.7. PIP Section 6: Test and Evaluation.</p> <p>3.6.8.7.2 The Bidder shall identify his proposed test organisation and provide preliminary Test and Evaluation plan by WBS for the allocation of personnel and the time line for the Test activities set forth as requirements in SOW Section 10 of the Prospective Contract.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.6. PIP Section 6: Test and Evaluation.</p> <p>4.4.6.6.2 The Bidder shall have submitted a preliminary version of the Test and Evaluation Plan (as separate sub-Volumes for BCA Replacement) for FAT, and SAT, for the allocation of personnel and the time line for the Test activities that meets the overall requirements and objectives of SOW Section 10 of the Prospective Contract.</p>	

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<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.7. PIP Section 6: Test and Evaluation.</p> <p>3.6.8.7.3 This plan shall also include a preliminary Security Test and Verification Plan (STVP) that meets the requirements set forth as in SOW Section 5 of the Prospective Contract.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.6. PIP Section 6: Test and Evaluation.</p> <p>4.4.6.6.3 The Bidder shall have submitted as integral part of the testing activities provide a preliminary Security Test and Verification Plan (STVP) that meets the requirements set forth as in SOW Section 5 of the Prospective Contract.</p>	
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.7. PIP Section 6: Test and Evaluation.</p> <p>3.6.8.7.4 The Bidder shall describe the major components, sub-assemblies and assemblies that are proposed to be submitted for acceptance on the basis of prior testing and qualification and that are expected to undergo partial testing and extensive testing and evaluation.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.6. PIP Section 6: Test and Evaluation.</p> <p>4.4.6.6.4 The Bidder shall have provided comprehensive information about the major components, sub-assemblies and assemblies that are expected to undergo partial testing and extensive testing and evaluation prior to FAT, and SAT.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.7. PIP Section 6: Test and Evaluation.</p> <p>3.6.8.7.5 If there are elements of the System that are proposed to be submitted on the basis of a Certificate of Conformity based on prior test and qualification, the Bidder shall provide a summary of the particulars and especially the dates of the prior tests and for whom the testing was executed.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.6. PIP Section 6: Test and Evaluation.</p> <p>4.4.6.6.5 If there are elements of the System that are proposed to be submitted on the basis of a Certificate of Conformity based on prior test and qualification, the Bidder shall also have provided a summary of the particulars and especially the dates of the prior tests and for whom the testing was executed.</p>	
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.7. PIP Section 6: Test and Evaluation.</p> <p>3.6.8.7.6 The Bidder shall describe how the proposed Certificate of Conformity or request for exemption of testing based on prior qualification will be processed from QA and CM aspects.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.6. PIP Section 6: Test and Evaluation.</p> <p>4.4.6.6.6 The Bidder shall have described how the proposed Certificate of Conformity will be processed from QA and CM aspects.</p>	

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<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.7. PIP Section 6: Test and Evaluation.</p> <p>3.6.8.7.7 The Bidder shall describe the preliminary version of procedures and controls to be employed for testing of components, sub-assemblies and assemblies that are sub-contracted and tested at sub-contractor’s facilities.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.6. PIP Section 6: Test and Evaluation.</p> <p>4.4.6.6.7 The Bidder shall have adequately described his proposed methods to ensure the testing in compliance with Contract requirements of components, sub-assemblies and assemblies that are sub-contracted and tested at sub-contractor facilities.</p>	
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.8. PIP Section 7: Documentation.</p> <p>3.6.8.8.1 In this Section, the Bidder shall provide a preliminary Documentation Plan by WBS to detail the resources allocated and the schedule of work to deliver the documentation required in SOW Section 13 of the Prospective Contract.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.7. PIP Section 7: Documentation.</p> <p>4.4.6.7.1 In this Volume, the Bidder shall have provided a preliminary Documentation Plan by WBS to detail the resources allocated and the schedule of work to deliver the documentation required in SOW Section 13 of the Prospective Contract.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.8. PIP Section 7: Documentation.</p> <p>3.6.8.8.2 In this plan, The Bidder shall describe how he proposes to comply with each of the documentation requirements detailed in SOW Section 13 of the Prospective Contract.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.7. PIP Section 7: Documentation.</p> <p>4.4.6.7.2 In this plan, The Bidder shall have described how he proposes to comply with each of the documentation requirements detailed in SOW Section 13 of the Prospective Contract.</p>	
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.8. PIP Section 7: Documentation.</p> <p>3.6.8.8.3 The Bidder shall also identify the documentation team and the individual responsible within his organisation for ensuring such documentation is delivered on schedule and to the Contract requirements.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.7. PIP Section 7: Documentation.</p> <p>4.4.6.7.3 The Bidder shall also have identified the documentation team and the individual responsible within his organisation for ensuring such documentation is delivered on schedule and to the Contract requirements.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.9. PIP Section 8: System Acceptance.</p> <p>3.6.8.9.1 The Bidder shall develop a System Acceptance Plan in accordance with Statement of Work (SOW) Section 11 of the Prospective Contract. The Bidder shall provide a preliminary System Acceptance Plan by WBS for the allocation of personnel and the time schedule to accomplish all the activities required and ensure the timely delivery of all documentation and other deliverables required for successful Final Systems Acceptance (FSA).</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.8. PIP Section 8: System Acceptance.</p> <p>4.4.6.8.1 The Bidder shall have provided a preliminary System Acceptance Plans plan (as separate sub-Volumes for BCA Replacement) by WBS for the allocation of personnel and the time schedule to accomplish all the activities required and ensure the timely delivery of all documentation and other deliverables required for successful Final Systems Acceptance (FSA) in order to meet the requirements as set forth in SOW Section 11 of the Prospective Contract.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.10. PIP Section 9: Training.</p> <p>3.6.8.10.1 The Bidder shall provide a preliminary Training Plan in accordance with SOW Section 14 of the Prospective Contract, detailing the training methodology for training of test personnel, operators, maintainers and system administrators, schedules for the initial training of personnel, the proposed training materials and the proposed delivery schedule of those materials.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.9. PIP Section 9: Training.</p> <p>4.4.6.9.1 The Bidder shall have submitted two preliminary Training Plans, as separate sub-Volumes for both systems BCA Replacement, that demonstrates that he fully understands the Training requirements set forth in SOW Section 14 of the Prospective Contract detailing the training methodology for training of test personnel, operators, maintainers and system administrators, schedules for the initial training of personnel, the proposed training materials and the proposed delivery schedule of those materials and thoroughly addresses the salient features of such requirements, such as schedule, material, media and content.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.10. PIP Section 9: Training.</p> <p>3.6.8.10.2 The Bidder shall describe his training organisation and demonstrate that adequate staffing in his organisation will be available to train the student population and meet the schedule without impacting on other activities.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.9. PIP Section 9: Training.</p> <p>4.4.6.9.2 The Bidder shall have described his training organisation and demonstrated that adequate staffing in his organisation will be available to train the student population and meet the schedule without impacting on other activities. The Bidder shall have described the medium/media to be utilised in his proposed training method.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.10. PIP Section 9: Training.</p> <p>3.6.8.10.3 The Bidder shall describe his approach regarding how support staff designated by the Site POC will be provided training on all tasks required to operate the system, perform daily maintenance and administration, disaster recovery, and problem isolation. The Bidder shall describe the Bidder’s approach regarding how this training shall be structured according to the First, Second, and Third-Level support concept.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.9. PIP Section 9: Training.</p> <p>4.4.6.9.3 The Bidder shall have described his approach regarding how support staff designated by the Site POC will be provided training on all tasks required to operate the system, perform daily maintenance and administration, disaster recovery, and problem isolation. The Bid shall have described the Bidder’s approach regarding how this training shall be structured according to the First, Second, and Third-Level support concept.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.11. PIP Section 10: Reliability, Availability, Maintainability and Testability.</p> <p>3.6.8.11.1 The Bidder shall provide a preliminary Reliability, Availability, Maintainability and Testability (RAMT) plan compliant with the requirements stated in SOW Section 9 of the Prospective Contract.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.10. PIP Section 10: Reliability, Availability, Maintainability and Testability.</p> <p>4.4.6.10.1 The Bidder shall have provided a preliminary Reliability, Availability, Maintainability and Testability (RAMT) plan compliant with the requirements stated in SOW Section 9 of the Prospective Contract.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3:</p> <p>Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.11. PIP Section 10: Reliability, Availability, Maintainability and Testability.</p> <p>3.6.8.11.2 The Bidder shall provide calculations that demonstrate that the BCA Replacement Systems meets the RAMT requirements set forth in SOW Section 9 of the Prospective Contract. The Bidders shall provide these calculations based as much as possible on actual data derived from operational experience of fielded systems and components and extrapolations therefrom, and shall provide a full description of the source data utilised, providing equipment numbers, owners, location and inclusive dates.</p>	<p>Paragraph 4.4.6. Volume 3:</p> <p>Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.10. PIP Section 10: Reliability, Availability, Maintainability and Testability.</p> <p>4.4.6.10.2 The Bidder shall have provided calculations that convincingly demonstrating that the proposed BCA Replacement systems design will meet the Reliability, Availability, Maintainability and Testability (RAMT) requirements set forth in the SOW Section 9 of the Prospective Contract. The Bidders shall have provided these calculations based as much as possible on actual data derived from operational experience of fielded systems and components and extrapolations therefrom, and shall have provided a full description of the source data utilised, providing equipment numbers, owners, location and inclusive dates.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3:</p> <p>Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.11. PIP Section 10: Reliability, Availability, Maintainability and Testability.</p> <p>3.6.8.11.3 The Bidder shall predict the MTBF (Main Time Between Failure) of the system he proposed and justify that the total availability of the system is within the requested values as specified at SOW.</p>	<p>Paragraph 4.4.6. Volume 3:</p> <p>Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.10. PIP Section 10: Reliability, Availability, Maintainability and Testability.</p> <p>4.4.6.10.3 The Bidder shall have predicted the MTBF of the system he proposed and justify that the total availability of the system is within the requested values as specified at SOW. The Bidder shall provide calculations that demonstrate that the BCA Replacement Systems meet the RAMT requirements of the IFB.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.12. PIP Section 11: Security Accreditation.</p> <p>3.6.8.12.1 In this Section, the Bidder shall provide a preliminary Security Accreditation Plan (SAP) by WBS to detail the resources allocated and the schedule of work to obtain the Security Accreditation and to meet the security requirements set forth in SOW Section 5 of the Prospective Contract.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.11. PIP Section 11: Security Accreditation.</p> <p>4.4.6.11.1 The Bidder shall have submitted a preliminary Security Accreditation Plan and shall have convincingly demonstrated that the proposed plan will meet the Security requirements set forth in SOW Section 5 of the Prospective Contract.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.12. PIP Section 11: Security Accreditation.</p> <p>3.6.8.12.2 The Bidder shall confirm that it understands and accepts security accreditation documentation review and approval procedures, as defined in the IFB Book II Part III Contract General Provisions, Clause 22.</p>	<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.11. PIP Section 11: Security Accreditation.</p> <p>3.6.8.11.2 The Bidder shall have confirmed that he understands and accepts security accreditation documentation review and approval procedures, as defined in the IFB Book II Part II Volume 2 Contract General Provisions, paragraph 22.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.m. PIP Section 12: Risk Assessment and Management.</p> <p>3.6.8.13.1 In order to demonstrate overall comprehension of the requirements set forth in the Prospective Contract, the Bidder shall provide a preliminary Risk Assessment and Management Plan (RAMP) defining his strategy for risk management to meet the requirements as set forth in SOW paragraph 2.7 of the Prospective Contract.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.12. PIP Section 12: Risk Assessment and Management.</p> <p>4.4.6.12.1 The Bidder shall have provided a preliminary Risk Assessment and Management Plan (RAMP) defining his strategy for risk management to meet the requirements as set forth in SOW paragraph 2.7 of the Prospective Contract. The Bidder shall have demonstrated the adequacy of monitoring and control activities to ensure early detection of problem areas and to schedule risk. The Bidder shall have identified the possible risks involved in the performance of the Contract and shall have convincingly demonstrated that his approach offers adequate, logical and pragmatic means for risk identification, assessment, mitigation, monitoring, and reporting the risks, as well as methods for overcoming setbacks to the project throughout the Contract duration.</p>	

BIDDING INSTRUCTION	ASSOCIATED BID EVALUATION CRITERIA in BOOK I	BID REFERENCE
<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.14. PIP Section 13: Site Installation and Civil Works.</p> <p>3.6.8.14.1 In this Section, the Bidder shall provide a preliminary plan that thoroughly describe the civil works, power and site preparation requirements that must be accomplished to properly install and operate the proposed BCA Replacement systems as set forth in SOW Section 12, SOW Annex A, and SOW Annex B of the Prospective Contract.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.13. PIP Section 13: Site Installation and Civil Works.</p> <p>4.4.6.13.1 The Bidder shall have provided specific and comprehensive information concerning the civil works, Power and site preparation requirements that must be accomplished to properly install and operate the proposed BCA Replacement systems as set forth in SOW Section 12, SOW Annex A, and SOW Annex B of the Prospective Contract. The bidder shall have demonstrated his concept and technical solutions including sufficient degree of details. The Bidder shall also have provided specific and comprehensive information concerning the civil works, power and site preparation requirements necessary to have been completed prior to the installation of the delivered BCA Replacement Systems.</p>	

<p>Paragraph 3.6.8 – Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>3.6.8.14. PIP Section 13: Site Installation and Civil Works.</p> <p>3.6.8.14.4 Bidder shall confirm his understanding and acceptance of the site access requirements as defined in the IFB.</p>	<p>Paragraph 4.4.6. Volume 3: Preliminary Project Implementation Plan (PIP)</p> <p>4.4.6.13. PIP Section 13: Site Installation and Civil Works.</p> <p>4.4.6.13.2 The Bidder shall have confirmed his understanding and acceptance of the site access requirements as defined in the IFB.</p>	
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CLIN	DESCRIPTION	SOW REFERENCE	UNIT OF MEASURE	QTY	UNIT PRICE / Currency	TOTAL PRICE	DELIVERY / FINISH DATE - TIME AFTER EDC	DELIVERY SITE
Grand Total Firm Fixed Price (CLINs 1-6) Base Contract								
1 Project Activities and Project Management								
1.1	Project Implementation Plan (PIP)	2.1	EA	1	0.00	0.00	6 Weeks	NCIA Mons
1.1.1	Project Management and Control Plan (PMCP)	2.1.1	EA	1		Included in CLIN 1.1		
1.1.2	Project Master Schedule (PMS)	2.1.2	EA	1		Included in CLIN 1.1		
1.1.3	Communication Plan	2.1.3	EA	1		Included in CLIN 1.1		
1.1.4	System Engineering and Design Plan (SEDP)	4.2	EA	1		Included in CLIN 1.1		
1.1.5	System Safety Engineering Plan	4.1	EA	1		Included in CLIN 1.1		
1.1.6	Configuration Management (CM) Plan	7.3	EA	1		Included in CLIN 1.1		
1.1.7	ILS plan	8.1	EA	1		Included in CLIN 1.1		
1.1.8	Risk Assessment Plan (RAPM)	2.7.1	EA	1		Included in CLIN 1.1		
1.1.9	System Installation Transition Plan (SITP)	2.3.15	EA	1		Included in CLIN 1.1		
1.2	Project Checkpoint Reports (PCR)	2.4	LOT	1	0.00	0.00	Monthly	NCIA Mons
1.3	Project Progress Reports (PPR)	2.5	LOT	1	0.00	0.00	Every 2 Months	NCIA Mons
1.4	Project Progress Meetings (PPM)	2.6			0.00			
1.4.1	PPM - Start Up	EA	1			Included in CLIN 1.4	2 Months	Contractor
1.4.2	PPM - Remainder	LOT	1			Included in CLIN 1.4	Every 2 Months	NCIA Mons
1.5	Security Accreditation Plan (SAP)	5	EA	1	0.00	0.00	Prior to FSA	NCIA Mons
1.5.1	Security Accreditation Plan (SAP)	5.4.6	EA	1		Included in CLIN 1.5		
1.5.2	Security Test & Verification Plan (STVP)	5.4.11	EA	1		Included in CLIN 1.5		
1.5.3	System Security Requirements Statement (SSRS)	5.4.8	EA	1		Included in CLIN 1.5		
1.5.4	System Interconnection Requirements Statement (SIRS)	5.4.10	EA	1		Included in CLIN 1.5		
1.5.5	Security Operating Procedures (SecOps)	5.4.9	EA	1		Included in CLIN 1.5		
1.5.6	Security Risk Assessment	5.4.7	EA	1		Included in CLIN 1.5		
1.5.7	System description	5.4.5	EA	1		Included in CLIN 1.5		
1.5.8	Site Security Compliance Statements	5.4.12	EA	1		Included in CLIN 1.5		
Total CLIN 1								
2 Engineering								
2.1	System Requirements Review (SR)	4.7.1	EA	1	0.00	0.00	8 Weeks	Contractor
2.1.1	System Requirements Review Report	4.6	EA	1	0.00	0.00	Included in CLIN 2.1	
2.2	Preliminary Design Review (PDR)	4.7.1	EA	1	0.00	0.00	14 Weeks	Contractor
2.2.1	Technical Design Reports - PDR	4.6	EA	1	0.00	0.00	Included in CLIN 2.2	
2.3	Critical Design Review (CDR)	4.7.1	EA	1	0.00	0.00	24 Weeks	Contractor
2.3.1	Technical Design Reports - CDR	4.6	EA	1	0.00	0.00	Included in CLIN 2.3	
2.3.2	Detailed Design Specifications (DDS)	4.6	EA	1	0.00	0.00	Included in CLIN 2.3	
2.3.3	Configuration Item (CI) Specifications	4.6.1	EA	1	0.00	0.00	Included in CLIN 2.3	
2.3.4	Interface Control and Management Document	4.6.1	EA	1	0.00	0.00	Included in CLIN 2.3	
Total CLIN 2								
3 Implementation								
3.1	Site Survey	3.6	EA	1	0.00	0.00	4 Weeks	SOW (Annex A)
3.2	Site Survey Report (SSR)	3.6	EA	1	0.00	0.00	8 Weeks	NCIA Mons
3.3	Site Preparation Data Package (SPDP)	3.7	EA	1	0.00	0.00	36 Weeks	NCIA Mons
3.4	Site Installation Specifications (SIS)	3.7	EA	1	0.00	0.00	44 Weeks	NCIA Mons
3.5	Site Installation Acceptance	10.5	EA	1	0.00	0.00	46 Weeks	SOW (Annex A)
Total CLIN 3								
4 Test and Acceptance								
4.1	Factory Acceptance Test	10.7	EA	1	0.00	0.00	40 Weeks	Contractor
4.1.1	Factory Acceptance Test (FAT) Procedure	10.4	EA	1	0.00	0.00	4 Weeks before FAT	NCIA Mons
4.1.2	Factory Acceptance Test Report	10.4	EA	1	0.00	0.00	1 Week after completion of FAT	NCIA Mons
4.2	System (Site) Acceptance Test	10.8	EA	1	0.00	0.00	46 Weeks	SOW (Annex A)
4.2.1	System (Site) Acceptance Test (SAT) Procedure	10.4	EA	1	0.00	0.00	4 Weeks before SAT	NCIA Mons
4.2.2	System (Site) Acceptance Test Report	10.4	EA	1	0.00	0.00	1 Week after completion of SAT	NCIA Mons
4.3	Final System Acceptance (FSA)	11	EA	1	0.00	0.00	53 Weeks	SOW (Annex A)
4.3.1	Final System Acceptance Report	11.7	EA	1	0.00	0.00	1 Week after completion of FSA	NCIA Mons
4.4	Test Readiness Review Reports	10.4	LOT	1	0.00	0.00	1 Week after each Test Readiness Review	NCIA Mons
Total CLIN 4								
5 Support								
5.1	Training of nominated Site Personnel	14	LOT	1	0.00	0.00	48 Weeks	SOW (Annex A)
5.2	ILS Plan	8.1	EA	1	0.00	0.00	Included in CLIN 1.1	NCIA Mons
5.3	Spares Listings							
5.3.1	Recommended Spare Parts List (RSPL)	8.3	EA	1	0.00	0.00	32 Weeks	NCIA Mons
5.3.2	Recommended Tools and Test Equipment List (RTTEL)	8.4.1	EA	1	0.00	0.00	32 Weeks	NCIA Mons
5.4	System Inventory	11.7.2	EA	1	0.00	0.00	53 Weeks	NCIA Mons
5.5	Packaging, Handling, Storage and Transportation (PHS&T)	8.8	LOT	1	0.00	0.00	see SOW	NCIA Mons
5.6	Product Documentation (incl. COFS, As Built documentation)	13	LOT	1	0.00	0.00	46 Weeks	NCIA Mons
5.7	Training Documentation	13	LOT	2	0.00	0.00	46 Weeks	NCIA Mons
5.8	Support - All levels	8.2	LOT	1	0.00	0.00	Until FSA	SOW (Annex A)
5.9	Warranty	8.6	LOT	1	0.00	0.00	Starts after Formal System Acceptance, for 12 months	NCIA Mons
Total CLIN 5								
6 Equipment Delivery								
6.1	ICA Replacement System & Supplies as specified in SOW & below:						40 Weeks	SOW (Annex A)
6.1.1	Server	Annex A	2	0.00	0.00			
6.1.2	Workstation (including Monitors, Keyboard & Mouse)	Annex A	5	0.00	0.00			
6.1.3	Printer	Annex A	0	0.00	0.00		Requirement removed	
6.1.4	Switch	Annex A	2	0.00	0.00			
6.1.5	Multiplexer	Annex A	1	0.00	0.00			
6.1.6	Software Licences (Server)	Annex A	2	0.00	0.00			
6.1.7	Software Licences (Workstation)	Annex A	5	0.00	0.00			
6.2	Supply and installation of in-rack cabling and in-rack patching	12	LOT	1	0.00	0.00	42 Weeks	
6.3	Spares	8.3.2	LOT	1	0.00	0.00	40 Weeks	SOW (Annex A)
Total CLIN 6								
7 Unspecified Option								
7.1	Security Accreditation	5	EA	1	0.00	0.00	TBD	NCIA Mons
7.1.1	Security Accreditation Plan (SAP)	5.4.6	EA	1		Included in CLIN 7.1		
7.1.2	Security Test & Verification Plan (STVP)	5.4.11	EA	1		Included in CLIN 7.1		
7.1.3	System Security Requirements Statement (SSRS)	5.4.8	EA	1		Included in CLIN 7.1		
7.1.4	System Interconnection Requirements Statement (SIRS)	5.4.10	EA	1		Included in CLIN 7.1		
7.1.5	Security Operating Procedures (SecOps)	5.4.9	EA	1		Included in CLIN 7.1		
7.1.6	Security Risk Assessment	5.4.7	EA	1		Included in CLIN 7.1		
7.1.7	System description	5.4.5	EA	1		Included in CLIN 7.1		
7.1.8	Site Security Compliance Statements	5.4.12	EA	1		Included in CLIN 7.1		
7.2	Site Survey	3.6	EA	1	0.00	0.00	TBD	SOW (Annex A)
7.2.1	Site Survey Report (SSR)	3.6	EA	1	0.00	0.00	TBD	NCIA Mons
7.2.2	Site Preparation Data Package (SPDP)	3.7	EA	1	0.00	0.00	TBD	NCIA Mons
7.2.3	Site Installation Specifications (SIS)	3.7	EA	1	0.00	0.00	TBD	NCIA Mons
7.2.4	Site Installation Acceptance	10.5	EA	1	0.00	0.00	TBD	SOW (Annex A)
7.3	Factory Acceptance Test - Report	10.4	EA	1	0.00	0.00	TBD	NCIA Mons
7.4	System Inventory	11.7.2	EA	1	0.00	0.00	TBD	NCIA Mons
7.5	Packaging, Handling, Storage and Transportation (PHS&T)	8.8	LOT	1	0.00	0.00	TBD	NCIA Mons
7.6	Product Documentation (incl. COFS, As Built documentation)	13	LOT	1	0.00	0.00	TBD	NCIA Mons
7.7	Support - All levels	8.2	LOT	1	0.00	0.00	TBD	SOW (Annex A)
7.8	Warranty	8.6	LOT	1	0.00	0.00	TBD	NCIA Mons
7.9	ICA Replacement System & Supplies as specified in SOW & below:						TBD	SOW (Annex A)
7.9.1	Server	Annex A	2	0.00	0.00			
7.9.2	Workstation (including Monitors, Keyboard & Mouse)	Annex A	5	0.00	0.00			
7.9.3	Printer	Annex A	0	0.00	0.00		Requirement removed	
7.9.4	Switch	Annex A	2	0.00	0.00			
7.9.5	Multiplexer	Annex A	1	0.00	0.00			
7.9.6	Software Licences (Server)	Annex A	2	0.00	0.00			
7.9.7	Software Licences (Workstation)	Annex A	5	0.00	0.00			
7.9.8	Supply and installation of in-rack cabling and in-rack patching	12	LOT	1	0.00	0.00	TBD	
7.9.9	Spares	8.3.2	LOT	1	0.00	0.00	TBD	SOW (Annex A)
Total CLIN 7								



NATO Communications and Information Agency
Agence OTAN d'information et de communication

Replace Submarine Broadcast Control Authority
Communications Equipment

IFB-CO-14311-BCA

BOOK II

PROSPECTIVE CONTRACT

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IFB-CO-14311-BCA

Original No. ___ of 3

NCIA Contract CO-14311-BCA

between

NATO Communications and Information Organisation

- represented by the General Manager, NCI AGENCY -

Boulevard Leopold III,
B-1110 Brussels,
Belgium

and

Name of Contractor

Procurement of Hardware and Software under NATO Project "Replace NATO VLF
MSK Broadcast Control Authority (BCA)"

Effective Date:.....

Value:.....

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SIGNATURE SHEET

IN WITNESS WHEREOF the parties hereto have caused this agreement to be executed by their duly authorised officers on the date shown hereunder:

FOR THE CONTRACTOR:	FOR THE PURCHASER:
..... Signature Signature
..... Printed Name Printed Name
..... Title of Signer Title of Signer
..... Date Date

EFFECTIVE DATE OF CONTRACT: _____

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CLIN	DESCRIPTION	SOW REFERENCE	UNIT OF MEASURE	QTY	UNIT PRICE / Currency	TOTAL PRICE	DELIVERY / FINISH DATE - TIME AFTER EDC	DELIVERY SITE
Grand Total Firm Fixed Price (CLINs 1-6) Base Contract								
1	Project Activities and Project Management							
1.1	Project Implementation Plan (PIP)	2.1	EA	1	0.00	0.00	6 Weeks	NCA Mons
1.1.1	Project Management and Control Plan (PMCP)	2.1.1	EA	1		Included in CLIN 1.1		
1.1.2	Project Master Schedule (PMS)	2.1.2	EA	1		Included in CLIN 1.1		
1.1.3	Communication Plan	2.1.3	EA	1		Included in CLIN 1.1		
1.1.4	System Engineering and Design Plan (SEDP)	4.2	EA	1		Included in CLIN 1.1		
1.1.5	System Safety Engineering Plan	4.1	EA	1		Included in CLIN 1.1		
1.1.6	Configuration Management (CM) Plan	7.3	EA	1		Included in CLIN 1.1		
1.1.7	ILS plan	8.1	EA	1		Included in CLIN 1.1		
1.1.8	Risk Assessment Plan (RAPM)	2.7.1	EA	1		Included in CLIN 1.1		
1.1.9	System Installation Transition Plan (SITP)	2.3.15	EA	1		Included in CLIN 1.1		
1.2	Project Checkpoint Reports (PCR)	2.4	LOT	1	0.00	0.00	Monthly	NCA Mons
1.3	Project Progress Reports (PPR)	2.5	LOT	1	0.00	0.00	Every 2 Months	NCA Mons
1.4	Project Progress Meetings (PPM)	2.6			0.00			
1.4.1	PPM - Start Up	EA	1			Included in CLIN 1.4	2 Months	Contractor
1.4.2	PPM - Remainder	LOT	1			Included in CLIN 1.4	Every 2 Months	NCA Mons
1.5	Security Accreditation Plan (SAP)	5	EA	1	0.00	0.00	Prior to FSA	NCA Mons
1.5.1	Security Accreditation Plan (SAP)	5.4.6	EA	1		Included in CLIN 1.5		
1.5.2	Security Test & Verification Plan (STVP)	5.4.11	EA	1		Included in CLIN 1.5		
1.5.3	System Security Requirements Statement (SSRS)	5.4.8	EA	1		Included in CLIN 1.5		
1.5.4	System Interconnection Requirements Statement (SIRS)	5.4.10	EA	1		Included in CLIN 1.5		
1.5.5	Security Operating Procedures (SecOps)	5.4.9	EA	1		Included in CLIN 1.5		
1.5.6	Security Risk Assessment	5.4.7	EA	1		Included in CLIN 1.5		
1.5.7	System description	5.4.5	EA	1		Included in CLIN 1.5		
1.5.8	Site Security Compliance Statements	5.4.12	EA	1		Included in CLIN 1.5		
Total CLIN 1								
2	Engineering							
2.1	System Requirements Review (SR)	4.7.1	EA	1	0.00	0.00	8 Weeks	Contractor
2.1.1	System Requirements Review Report	4.6	EA	1	0.00	0.00	Included in CLIN 2.1	
2.2	Preliminary Design Review (PDR)	4.7.1	EA	1	0.00	0.00	14 Weeks	Contractor
2.2.1	Technical Design Reports - PDR	4.6	EA	1	0.00	0.00	Included in CLIN 2.2	
2.3	Critical Design Review (CDR)	4.7.1	EA	1	0.00	0.00	24 Weeks	Contractor
2.3.1	Technical Design Reports - CDR	4.6	EA	1	0.00	0.00	Included in CLIN 2.3	
2.3.2	Detailed Design Specifications (DDS)	4.6	EA	1	0.00	0.00	Included in CLIN 2.3	
2.3.3	Configuration Item (CI) Specifications	4.6.1	EA	1	0.00	0.00	Included in CLIN 2.3	
2.3.4	Interface Control and Management Document	4.6.1	EA	1	0.00	0.00	Included in CLIN 2.3	
Total CLIN 2								
3	Implementation							
3.1	Site Survey	3.6	EA	1	0.00	0.00	4 Weeks	SOW (Annex A)
3.2	Site Survey Report (SSR)	3.6	EA	1	0.00	0.00	8 Weeks	NCA Mons
3.3	Site Preparation Data Package (SPDP)	3.7.5	EA	1	0.00	0.00	36 Weeks	NCA Mons
3.4	Site Installation Specification (SIS)	3.7	EA	1	0.00	0.00	44 Weeks	NCA Mons
3.5	Site Installation Acceptance	10.5	EA	1	0.00	0.00	46 Weeks	SOW (Annex A)
Total CLIN 3								
4	Test and Acceptance							
4.1	Factory Acceptance Test	10.7	EA	1	0.00	0.00	40 Weeks	Contractor
4.1.1	Factory Acceptance Test (FAT) Procedure	10.4	EA	1	0.00	0.00	4 Weeks before FAT	NCA Mons
4.1.2	Factory Acceptance Test Report	10.4	EA	1	0.00	0.00	1 Week after completion of FAT	NCA Mons
4.2	System (Site) Acceptance Test	10.8	EA	1	0.00	0.00	46 Weeks	SOW (Annex A)
4.2.1	System (Site) Acceptance Test (SAT) Procedure	10.4	EA	1	0.00	0.00	4 Weeks before SAT	NCA Mons
4.2.2	System (Site) Acceptance Test Report	10.4	EA	1	0.00	0.00	1 Week after completion of SAT	NCA Mons
4.3	Final System Acceptance (FSA)	11	EA	1	0.00	0.00	53 Weeks	SOW (Annex A)
4.3.1	Final System Acceptance Report	11.7	EA	1	0.00	0.00	1 Week after completion of FSA	NCA Mons
4.4	Test Readiness Review Reports	10.4	LOT	1	0.00	0.00	1 Week after each Test Readiness Review	NCA Mons
Total CLIN 4								
5	Support							
5.1	Training of nominated Site Personnel	14	LOT	1	0.00	0.00	48 Weeks	SOW (Annex A)
5.2	ILS Plan	8.1	EA	1	0.00	0.00	Included in CLIN 1.1	NCA Mons
5.3	Spares Listings							
5.3.1	Recommended Spare Parts List (RSPL)	8.3	EA	1	0.00	0.00	32 Weeks	NCA Mons
5.3.2	Recommended Tools and Test Equipment List (RTTEL)	8.4.1	EA	1	0.00	0.00	32 Weeks	NCA Mons
5.4	System Inventory	11.7.2	EA	1	0.00	0.00	53 Weeks	NCA Mons
5.5	Packaging, Handling, Storage and Transportation (PHS&T)	8.8	LOT	1	0.00	0.00	see SOW	NCA Mons
5.6	Product Documentation (incl. COFS, As Built documentation)	13	LOT	1	0.00	0.00	46 Weeks	NCA Mons
5.7	Training Documentation	13	LOT	2	0.00	0.00	46 Weeks	NCA Mons
5.8	Support - All levels	8.2	LOT	1	0.00	0.00	Until FSA	SOW (Annex A)
5.9	Warranty	8.6	LOT	1	0.00	0.00	Starts after Formal System Acceptance, for 12 months	NCA Mons
Total CLIN 5								
6	Equipment Delivery							
6.1	ICA Replacement System & Supplies as specified in SOW & below:						40 Weeks	SOW (Annex A)
6.1.1	Server	Annex A	2	0.00	0.00			
6.1.2	Workstation (including Monitors, Keyboard & Mouse)	Annex A	5	0.00	0.00			
6.1.3	Printer	Annex A	0	0.00	0.00		Requirement removed	
6.1.4	Switch	Annex A	2	0.00	0.00			
6.1.5	Multiplexer	Annex A	1	0.00	0.00			
6.1.6	Software Licences (Server)	Annex A	2	0.00	0.00			
6.1.7	Software Licences (Workstation)	Annex A	5	0.00	0.00			
6.2	Supply and installation of in-rack cabling and in-rack patching	12	LOT	1	0.00	0.00	42 Weeks	
6.3	Spares	8.3.2	LOT	1	0.00	0.00	40 Weeks	SOW (Annex A)
Total CLIN 6								
7	Unrealized Option							
7.1	Security Accreditation	5	EA	1	0.00	0.00	TBD	NCA Mons
7.1.1	Security Accreditation Plan (SAP)	5.4.6	EA	1		Included in CLIN 7.1		
7.1.2	Security Test & Verification Plan (STVP)	5.4.11	EA	1		Included in CLIN 7.1		
7.1.3	System Security Requirements Statement (SSRS)	5.4.8	EA	1		Included in CLIN 7.1		
7.1.4	System Interconnection Requirements Statement (SIRS)	5.4.10	EA	1		Included in CLIN 7.1		
7.1.5	Security Operating Procedures (SecOps)	5.4.9	EA	1		Included in CLIN 7.1		
7.1.6	Security Risk Assessment	5.4.7	EA	1		Included in CLIN 7.1		
7.1.7	System description	5.4.5	EA	1		Included in CLIN 7.1		
7.1.8	Site Security Compliance Statements	5.4.12	EA	1		Included in CLIN 7.1		
7.2	Site Survey	3.6	EA	1	0.00	0.00	TBD	SOW (Annex A)
7.2.1	Site Survey Report (SSR)	3.6	EA	1	0.00	0.00	TBD	NCA Mons
7.2.2	Site Preparation Data Package (SPDP)	3.7.5	EA	1	0.00	0.00	TBD	NCA Mons
7.2.3	Site Installation Specification (SIS)	3.7	EA	1	0.00	0.00	TBD	NCA Mons
7.2.4	Site Installation Acceptance	10.5	EA	1	0.00	0.00	TBD	SOW (Annex A)
7.3	Factory Acceptance Test - Report	10.4	EA	1	0.00	0.00	TBD	NCA Mons
7.4	System Inventory	11.7.2	EA	1	0.00	0.00	TBD	NCA Mons
7.5	Packaging, Handling, Storage and Transportation (PHS&T)	8.8	LOT	1	0.00	0.00	TBD	NCA Mons
7.6	Product Documentation (incl. COFS, As Built documentation)	13	LOT	1	0.00	0.00	TBD	NCA Mons
7.7	Support - All levels	8.2	LOT	1	0.00	0.00	TBD	SOW (Annex A)
7.8	Warranty	8.6	LOT	1	0.00	0.00	TBD	NCA Mons
7.9	ICA Replacement System & Supplies as specified in SOW & below:						TBD	SOW (Annex A)
7.9.1	Server	Annex A	2	0.00	0.00			
7.9.2	Workstation (including Monitors, Keyboard & Mouse)	Annex A	5	0.00	0.00			
7.9.3	Printer	Annex A	0	0.00	0.00		Requirement removed	
7.9.4	Switch	Annex A	2	0.00	0.00			
7.9.5	Multiplexer	Annex A	1	0.00	0.00			
7.9.6	Software Licences (Server)	Annex A	2	0.00	0.00			
7.9.7	Software Licences (Workstation)	Annex A	5	0.00	0.00			
7.9.8	Supply and installation of in-rack cabling and in-rack patching	12	LOT	1	0.00	0.00	TBD	
7.9.9	Spares	8.3.2	LOT	1	0.00	0.00	TBD	SOW (Annex A)
Total CLIN 7								



NATO Communications and Information Agency
Agence OTAN d'information et de communication

Procurement of Hardware and Software under NATO Project
“Replace NATO VLF MSK Broadcast Control Authority (BCA)”

IFB-CO-14311-BCA

BOOK II - PART II

CONTRACT SPECIAL PROVISIONS

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1 ALTERATIONS, MODIFICATIONS AND DELETIONS OF THE NCIA CONTRACT GENERAL PROVISIONS

- 1.1 Article 3 “Order of Precedence” modifies Clause 1 “Order of Precedence” of the NCI Agency Contract General Provisions.
- 1.2 Article 4 “Participating Countries” supplements Clause 9 “Participating Countries” of the NCI Agency Contract General Provisions.
- 1.3 Article 6 “Security” augments Clause 11 “Security” of the NCI Agency Contract General Provisions.
- 1.4 Article 7 “Intellectual Property” augments Clause 30 “Intellectual Property” of the NCI Agency Contract General Provisions.
- 1.5 Article 8 “Intellectual Property Right, Indemnity and Royalties” augments Clause 29 “Patent and Copyright Indemnity” of the NCI Agency General Provisions.
- 1.6 Article 9 “Pricing of Changes, Modifications, Follow-on Contracts and Claims” augments Clause 19 “Pricing of Changes, Amendments and Claims” of the NCI Agency Contract General Provisions.
- 1.7 Article 10 “Acceptance of Design Documentation” augments Clause 22 “Inspection and Acceptance of Documentation” of the NCI Agency Contract General Provisions.
- 1.8 Article 15 “Applicable Regulations” augments Clause 6 “Authorisation to Perform/Conformance to National Laws and Regulations” of the NCI Agency General Provisions.
- 1.9 Article 20 “Liquidated Damages” replaces Clause 38 “Liquidated Damages” of the NCI Agency Contract General Provisions.
- 1.10 Article 21 “Systems Warranty” augments Clause 27 “Warranty of Work (Exclusive of Software)” and Clause 31 “Software Warranty” of the NCI Agency Contract General Provisions.
- 1.11 Article 22 “Place and Terms of Delivery” replaces Clause 20 “Notice of Shipment and Delivery” of the NCI Agency Contract General Provisions.

2 SCOPE

- 2.1 The Contractor shall deliver implementation of Hardware and Software under NATO Project “Replace NATO VLF MSK Broadcast Control Authority (BCA), as per Part IV - Statement of Work (including Annexes) and in accordance with Part I - Schedule of Supplies and Services for the firm fixed prices stated in this Contract.

3 ORDER OF PRECEDENCE

- 3.1 Clause 1 of the Contract General Provisions is modified to read as follows;
- 3.2 “In the event of any inconsistency in language, terms or conditions of the various parts of this Contract, precedence will be given in the following order:
1. Schedule of Supplies and Services, Part I,
 2. Contract Special Provisions, Part II,
 3. Contract General Provisions, Part III,
 4. Statement of Work, and its Annexes, Part IV,
 5. The Purchaser reserves the right to include in the Contract the Bidder’s Technical Proposal submitted in response to IFB-CO-14311-BCA dated _____ and any subsequent clarifications or modifications thereto (TBD).

4 PARTICIPATING COUNTRIES

- 4.1 This Article supplements Clause 9 of the Contract General Provisions.
- 4.2 The following NATO member nations have agreed to fund this acquisition effort: (in alphabetical order): ALBANIA, BELGIUM, BULGARIA, CANADA, CROATIA, THE CZECH REPUBLIC, DENMARK, ESTONIA, FRANCE, GERMANY, GREECE, HUNGARY, ICELAND, ITALY, LATVIA, LITHUANIA, LUXEMBOURG, THE NETHERLANDS, NORWAY, POLAND, PORTUGAL, ROMANIA, SLOVENIA, SLOVAKIA, SPAIN, TURKEY, THE UNITED KINGDOM and THE UNITED STATES.
- 4.3 The Contractor may issue sub-contracts to firms and purchase from qualified vendors in any participating NATO Nation. None of the work, including project design, labour and services, shall be performed other than by firms from and within participating countries, as per NATO policy.
- 4.4 The Contractor shall notify in writing to the Purchaser immediately upon being informed of any change in the nationality of its Subcontractor(s) which would prevent the Contractor from further complying with Clause 5.3 above. Upon receipt of this information from the Contractor, the Purchaser may, within three

months from this notification, require the Contractor to find an alternate subcontractor, complying with the requirements set out in Clause 5.3 above.

- 4.5 Unless authorized by NATO Policy, no material or items of equipment down to and including identifiable sub-assemblies delivered under this Contract shall be manufactured or assembled by a firm other than from and within a participating country.
- 4.6 The Intellectual Property Rights to all designed documentation and system operating software shall reside in participating NATO member countries, and no license fee, or royalty charges shall be paid by the Contractor to firms, individuals or governments other than within the NATO member community.

5 CONTRACT ADMINISTRATION

- 5.1 The Purchaser is the NATO CI Agency (NCI Agency). The Purchaser is the Point of Contact for all Contractual and Technical issues. The Contractor shall accept Contract modifications only in writing from the Purchaser’s Contracting Authority.
- 5.2 All notices and communications between the Contractor and the Purchaser shall be written and conducted in English. Contract modifications only become valid when received in writing from the General Manager, NCI Agency, and his authorised representative.
- 5.3 Formal letters and communications shall be personally delivered or sent by mail, registered mail, email, courier or other delivery service, to the official points of contact quoted in this Contract.
- 5.4 Informal notices and informal communication may be exchanged by any other means, including telephone.
- 5.5 All notices and communication shall be effective upon receipt.
- 5.6 Official Points of Contact are:

<u>PURCHASER</u>	
<u>Primary Contractual:</u> NCI Agency ACQ/Contracting Bâtiment Z Boulevard Léopold III B-1110 Brussels Belgium	<u>Primary Programmatic & Technical:</u> NCI Agency [TBD]
POC: Joseph Vitale	POC: [TBD]

Tel: +32 2 707 8321	Tel: + 32
Fax: +32 2 707 8770	Fax: + 32
E-mail joseph.vitale@ncia.nato.int	E-mail:

<u>CONTRACTOR</u>	
<u>Primary Contractual:</u>	<u>Primary Programmatic & Technical:</u>
<i>Company Name</i>	<i>Company Name</i>
<i>Address</i>	<i>Address</i>
POC:	POC:
Tel:	Tel:
Fax:	Fax:
E-mail	E-mail:

6 SECURITY

- 6.1 This Article augments Clause 11 of the Contract General Provisions.
- 6.2 The Contractor is responsible, in accordance with NATO and National Security regulations, for the proper handling, storage and control of any classified documents and information as may be furnished to the Contractor in relation to the performance of the present contract.
- 6.3 The security classification of this contract is “NATO UNCLASSIFIED”.
- 6.4 Contractor's personnel visiting or working at Purchaser's facilities in connection with this Contract shall hold and maintain a NATO SECRET security clearance valid for the duration of the Contract. This requirement applies to all sub-contracts issued by the Contractor for the effort under this prime Contract.
- 6.5 It is the responsibility of the Contractor to ensure that his personnel obtain the required security clearances and transmit this information to the sites to be visited in adequate time that the site may perform the appropriate administration.
- 6.6 The Contractor is advised that the personnel security process may be lengthy. The Purchaser bears no responsibility for the failure of the Contractor to secure the required clearances for its personnel within the necessary time.
- 6.7 Failure of the Contractor to obtain proper security clearances to have access to any NATO sites, and any attendant delay in the project which results from this access refusal, is not the basis for excusable delay under the terms of the

contract concerning default. The Contractor bears full responsibility and liability under the contract for delays arising from the failure of the Contractor to adhere to the security requirements.

- 6.8 In the absence of valid security clearances for the Contractor's personnel at contract signature, the Purchaser reserves the right to terminate the Contract for "Default".
- 6.9 The Contractor's facilities shall meet NATO security regulations to permit handling and storage of information classified up to and including NATO SECRET.
- 6.10 Any work required to be performed requiring processing information classified higher than NATO RESTRICTED shall be performed at the Purchaser's facilities in Mons (BE), The Hague (NLD), Brussels (BE) or Lago Patria (ITA).
- 6.11 The Purchaser shall maintain ownership rights of any public key certificates and private keys that it issues.

7 INTELLECTUAL PROPERTY

- 7.1 This Article augments Clause 30 of the Contract General Provisions.
- 7.2 Any use of Contractor Background IPR and Third Party IPR for the purpose of carrying out the Work pursuant to the Contract shall be free of any charge to Purchaser. The Contractor hereby grants to NATO and NATO Nations a non-exclusive, royalty-free and irrevocable licence to use and authorise others to use any Contractor Background IPR for the purpose of exploiting or otherwise using the Foreground IPR.

8 INTELLECTUAL PROPERTY RIGHT INDEMNITY AND ROYALTIES

- 8.1 This Article augments Clauses 29 of the Contract General Provisions.
- 8.2 The Contractor shall assume all liability and indemnify the Purchaser, its officers, agents and employees against liability, including costs for the infringement of any patents or copyright in force in any countries arising out of the manufacture, services performed or delivery of supplies, or out of the use or disposal by or for the account of the Purchaser of such supplies. The Contractor shall be responsible for obtaining any patent or copyright licences necessary for the performance of this Contract and for making all other arrangements required to indemnify the Purchaser from any liability for patent or copyright infringement in said countries.
- 8.3 The Contractor shall exclude from his prices any royalty pertaining to patents which in accordance with agreements reached between NATO countries may

be utilised free of charge by member nations of NATO and by NATO organisations.

8.4 The Contractor shall report in writing to the Purchaser during the performance of this Contract:

8.4.1 The royalties excluded from his price for patent utilised under the agreements mentioned in the paragraph above;

8.4.2 The amount of royalties paid or to be paid by the Contractor directly to others in performance of this Contract.

9 PRICING OF CHANGES, MODIFICATIONS, FOLLOW-ON CONTRACTS AND CLAIMS

9.1 This Article augments Clause 19 of the Contract General Provisions.

9.2 The Purchaser may at any time, by written order designated or indicated to be a change order, and without notice to the sureties, if any, make changes within the scope of any Contract or Task Order, in accordance with Clause 16 (Changes) of the Contract General Provisions.

9.3 Changes, modifications, follow-on Contracts of any nature, and claims shall be priced in accordance with Clause 19 (Pricing of Changes, Amendments and Claims) of the Contract General Provisions, and with the "Purchaser's Pricing Principles" as set out in the Annex to the Contract General Provisions.

9.4 Contractor price quotations and technical proposals for potential Contract changes or modifications shall be provided at no cost to the Purchaser and shall have a minimum validity period of six (6) months from Contractor submission to the Purchaser.

9.5 All cost and pricing information contained in the cost breakdown sheets submitted with the Bidding sheets as part of the Contractor's proposal, to include forward pricing, shall constitute the basis of reference for future negotiations related to any amendments to this Contract.

9.6 The Contract Schedule of Supplies and Services contains Line Items which may require upward or downward purchase quantity revisions resulting from contract execution activities (e.g. the site surveys). The unit prices for any Line Item purchase quantities impacted by the results of site surveys or other activities shall be subject to downward revision only. Any downward adjustment in quantity resulting from contract execution activities shall not be considered as a partial contract termination.

10 ACCEPTANCE OF DESIGN DOCUMENTATION

- 10.1 This Article augments Clause 22 of the Contract General Provisions.
- 10.2 The acceptance by the Purchaser of the Contractor’s design documentation required by this Contract signifies that the documents delivered appear logical and consistent. The acceptance does not constitute an endorsement or approval of the design by the Purchaser and does not relieve the Contractor of the obligation to meet the performance requirements of this contract in the event that the design eventually proves to be non-compliant during testing.

11 INDEMNITY

- 11.1 The Contractor will indemnify and hold harmless NATO, its servants or agents, against any liability, loss or damage arising out of or in connection of the Supplies and Services under this Contract, including the provisions set out in Article 9, "Intellectual Property Rights, Indemnity and Royalties".
- 11.2 The parties will indemnify each other against claims made against the other by their own personnel, and their Subcontractor Subcontractors (including their personal representatives) in respect of personal injury or death of such personnel or loss or destruction of or damage to the property of such personnel.
- 11.3 NATO will give the Contractor immediate notice of the making of any claim or the bringing of any action to which the provisions of this Article may be relevant and will consult with the Contractor over the handling of any such claim and conduct of any such action and will not without prior consultation and without the consent of the Contractor settle or compromise any such claim or action.
- 11.4 In the event of an accident resulting in loss, damage, injury or death arising from negligence or wilful intent of an agent, officer or employee of NATO for which the risk has been assumed by the Contractor, the cause of the accidents will be investigated jointly by the Parties and the extent to which NATO will be liable to recompense the Contractor will be determined together.

12 KEY PERSONNEL

- 12.1 The individuals listed below are considered to be key to the performance of this contract and shall not be replaced by the Contractor with substitute personnel without the prior written approval of the Purchaser. The Key Personnel are as follows:

POSITION	NAME
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POSITION	NAME
Project Manager	[TBD]
Technical Lead	[TBD]
Service Manager	[TBD]

- 12.2 In such cases where the services of the Key Personnel are lost to the Contractor beyond the reasonable control of the Contractor (e.g., resignation, sickness, incapacity, etc.), the Contractor must nominate a substitute(s) of equivalent or higher qualification and experience within 15 working days of the date at which the Contractor has knowledge of the loss of service of such key personnel. The replacement personnel shall be in place within a reasonable time.
- 12.3 If the Contractor is unable to nominate and/or replace the lost personnel within the timeframe mentioned in 12.2 above, the Purchaser may conclude that the loss of the Key Personnel endangers progress under the Contract to the extent that the Purchaser may resort to the Clause 39 – “Termination for Default” of the Contract General Provisions for redress of the situation.
- 12.4 The Purchaser has the right to refuse any proposed substitution if not meeting the qualifications and request the Contractor to offer another qualified individual in lieu thereof. The Purchaser will confirm any consent given to a substitution in writing and only such written consent shall be deemed as valid evidence of Purchaser consent.
- 12.5 The Purchaser reserves the right, even after acceptance of Contractor personnel on the basis of his/her CV and/or interview, to require the Contractor immediately to cease to employ any Key Personnel under the present contract if, in the sole opinion of the Purchaser, the individual is not meeting the required level of competence and/or his/her employment as Key Personnel is considered undesirable. The Purchaser will inform the Contractor, in writing, in cases where such a decision is taken and the Contractor shall propose and make qualified substitute Key Personnel available within 15 working days after the written notification. The Purchaser’s removal of Contractor Key Personnel shall in no way relieve the Contractor of his responsibility to achieve the contractual and technical requirements of this Contract nor imply any responsibility of the Purchaser.

13 LANGUAGE OF WORK

- 13.1 The working language of the Project Team is English and the associated technical documents are printed in English.

14 CARE AND DILIGENCE OF PROPERTY

- 14.1 The Contractor shall use reasonable care of avoid damaging building, equipment work site premises. If the Contractor damages any such building or equipment, he shall repair the damage as directed by the Purchaser and at no expenses to the Purchaser. If he fails or refuses to make such repair or replacement, the Contractor shall be liable for the cost thereof, which may be deducted from the Contract price.
- 14.2 The Purchaser shall exercise due care and diligence for Contractor's equipment, tools and materials on site premises. The Purchaser will not assume any liability except for gross negligence and wilful misconduct. The Purchaser will, however, not assume any liability except for gross negligence and wilful misconduct on the part of the Purchaser's personnel or agents.
- 14.3 The Contractor shall, at all times, keep the site area, including storage areas used by the Contractor, free from accumulations of waste. On completion of all work the Contractor is to leave the site area and its surroundings in a clean and neat condition.

15 APPLICABLE REGULATIONS

- 15.1 This Article augments Clause 6 of the Contract General Provisions.
- 15.2 The Contractor shall be responsible for obtaining permits or licenses to comply with national codes, laws and regulations or local rules and practices of the country of installation with respect of any works carried out at the designated installation sites stated under this Contract.
- 15.3 The Contractor shall take any necessary measure to protect the life and health of persons working or visiting the work area occupied by him. These measures include compliance with the country of installation's safety provisions.
- 15.4 In the performance of all work under this Contract, it shall be the Contractor's responsibility to ascertain and comply with all applicable NATO security regulations as implemented by the local Headquarters' Security Officer.

16 PRICE BASIS

- 16.1 This is a Firm Fixed Price contract. The prices stated herein are not subject to any adjustment on the basis of the Contractor's cost experience in performing the contract.
- 16.2 The Priced Schedule of Supplies and Services of the present contract, divided by major Contract Line Items (CLINs), list all services and/or deliverables, their due date, the place of delivery and their firm fixed price contract line item price.

16.3 The Firm Fixed Price of this contract includes any and all Contractor travel and accommodation.

17 SCHEDULE OF PAYMENTS

17.1 The Contractor shall submit to the Purchaser invoices prepared in accordance with Clause 25 – “*Invoices and Payment*” of the Contract General Provisions upon achievement of the Project Milestones listed below. The Contractor shall not submit any invoice for payment until the Purchaser has accepted, in writing, 1) the Milestone in question, and, 2) the CLINs contractually due before and at the point of Milestone completion.

17.2 Payment shall be made in the currency specified in the Contract following purchaser acceptance of the supplies and services to be furnished. The price to be charged is the total firm fixed price stated in the Contract Schedule of Supplies and Services. The total firm fixed price is an overall price including expenses. No payment shall be made with respect to undelivered supplies, works not performed and/or services not rendered.

17.3 Invoice shall be prepared for each Milestone in accordance with the Milestones Payment Schedule as indicated below. Therefore an invoice shall correspond to the successful completion of a Milestone, and shall contain the required documented evidence of the successful completion of each Item of that Milestone, including all required testing and acceptance documents for all the Item of that milestone.

17.4 Payment will be made by the Purchaser to the Contractor's financial institution as indicated on the invoice within sixty (60) calendar days of receipt of a properly prepared invoice.

17.5 Payment milestones are as follows:

17.5.1 CLIN 1, Project Activities and Project Management

Date / Milestone	Amount to be invoiced
Purchaser’s Acceptance in writing of: - Project Implementation Plan (PIP)	100% of value of CLIN 1.1
Purchaser’s Acceptance in writing of: - Factory Acceptance (FAT) Test Report	50 % of value of CLIN 1.3
Purchaser’s Acceptance in writing of: - FSA Report	50% of value of CLIN 1.3, 100% value of CLIN 1.2, and 100% the

	value of CLIN 1.4
Purchaser's Acceptance in writing of Security Accreditation to include : <ul style="list-style-type: none"> - Security Accreditation Plan (SAP). - Security Test & Verification Plan (STVP) - Systems Security Requirements Statement (SSRS) - System Interconnection Requirements Statement (SISRS) - Security Operation Procedures (SecOps) - Security Risk Assessment - System Description - Site Security Compliance Statements To be paid in conjunction with Purchaser's Acceptance in writing of FSA Report	100% of value of CLIN 1.5

17.5.2 CLIN 2, Engineering

Date / Milestone	Amount to be invoiced
Purchaser's Acceptance in writing of: <ul style="list-style-type: none"> - Critical Design Review to include all Reports, Specifications and Documentation. 	100% of the values of CLIN 2.1 CLIN 2.2 and CLIN 2.3

17.5.3 CLIN 3, Implementation

Date / Milestone	Amount to be invoiced
Purchaser's Acceptance in writing of: <ul style="list-style-type: none"> - Site Survey Report. 	100% of value of CLIN 3.1 and CLIN 3.2
Purchaser's Site Installation Acceptance in writing <ul style="list-style-type: none"> - . 	100% of value of CLIN 3.3, CLIN 3.4 and CLIN 3.5

17.5.4 CLIN 4, Test and Acceptance

Date / Milestone	Amount to be invoiced
Purchaser's Acceptance in writing of: <ul style="list-style-type: none"> - Factory Acceptance Test Report 	100% of value of CLIN 4.1
Purchaser's Acceptance Systems Site Acceptance Test in writing of: <ul style="list-style-type: none"> - Final System Acceptance (FSA) milestone; and delivery of Final 	100% of value of CLIN 4.2

Systems Acceptance Report	
Purchaser's Acceptance - Final System Acceptance (FSA) milestone; and delivery of Final Systems Acceptance Report	100% of value of CLIN 4.3 and CLIN 4.4

17.5.5 CLIN 5, Support:

Date / Milestone	Amount to be invoiced
Purchaser's Acceptance in writing of: - All deliverables and activities (from CLIN 5.1 through 5.8) upon delivery of Final Systems Acceptance Report.	100% of value of CLINs 5.1 through 5.8
- Completion of Warranty FSA + 1 year	100% of value of CLIN 5.9

17.5.6 CLIN 6, Equipment Delivery:

Date / Milestone	Amount to be invoiced
Purchaser's Acceptance in writing of: - Factory Acceptance (FSA) Test Report	45% of value of CLIN 6
Purchaser's Acceptance in writing of: - Final System Acceptance (FSA) Report	45% of value of CLIN 6
- Completion of Warranty	10% of value of CLIN 6

17.5.7 Option CLIN 7, Equipment Delivery:

Date / Milestone	Amount to be invoiced
Delivery and Purchaser's Acceptance of Equipment.	100% of value of CLIN 7

18 INDEPENDENT CONTRACTOR

18.1 The Personnel provided by the Contractor are at all times employees of the Contractor and not the Purchaser. In no case shall Contractor personnel act on behalf of or as an agent for NATO or any of its bodies. In no way shall the Contractor personnel claim directly or indirectly to represent NATO in an official capacity or claim themselves to be NATO employees.

18.2 The Purchaser shall not be responsible for securing work permits, lodging, leases nor tax declarations, driving permits, etc., with national or local authorities. Consultants employed under this Contract are not eligible for any diplomatic privileges or NATO employee benefits.

19 RESPONSIBILITY OF THE CONTRACTOR TO INFORM EMPLOYEES OF WORK ENVIRONMENT

19.1 The Contractor shall inform his employees under this Contract of the terms of the Contract and the conditions of the working environment.

19.2 Specifically, personnel shall be made aware of all risks associated with the performance under this Contract, the conditions of site in which the performance is to take place and living conditions while performing within the boundaries of the Contract. The selection of adequate personnel shall remain sole responsibility of the Contractor.

20 LIQUIDATED DAMAGES

20.1 This Article replaces Clause 38 of the Contract General Provisions.

20.2 If the Contractor fails to meet the delivery/performance at the times specified in the Schedule of Supplies and Services (SSS), or any agreed extension thereto, the actual damage to the Purchaser for the delay will be difficult or impossible to determine. Therefore, in lieu of actual damages the Contractor shall pay to the Purchaser liquidated damages of ten hundreds of one per cent (0.1%) of the value of the associated payment milestone in the payment schedule set forth in Article 18 of the Contract Special Provisions per day of delinquent delivery/performance.

20.3 Alternatively, the Purchaser may terminate this Contract in whole or in part, as provided in paragraph 39.1 of Clause 39 – “Termination for Default” of the Contract General Provisions and in that event the Contractor shall be liable to pay the excess costs provided in paragraph 39.5.

20.4 The Contractor shall not be charged with liquidated damages when the delay arises out of causes beyond the control and without the fault or negligence of the Contractor as defined in paragraph 39.6 of Clause 39 – “Termination for Default” of the Contract General Provisions. In such event, subject to the Disputes and Arbitration Clause, the Purchaser shall ascertain the facts and extent of the delay and shall extend the time for performance of the Contract when in his judgement the findings of fact justify an extension.

20.5 Liquidated damages shall be payable to the Purchaser from first day of delinquency in achieving the specified Major Payment Milestones and shall

accrue at the rate specified in paragraph 21.2 to a maximum of Fifteen Per Cent (15%) of the applicable payment for the milestone.

20.6 The amount of Liquidated Damages due by the Contractor shall be recovered by the Purchaser in the following order of priority:

20.6.1 By deducting such damages from the amounts due to the Contractor against the Contractor's invoices;

20.6.2 By proceeding against any surety;

20.6.3 By reclaiming such damages through appropriate legal remedies.

21 SYSTEMS WARRANTY

21.1 This Article augments Clauses 27 and 31 of the Contract General Provisions.

21.2 The Contractor shall warrant that all equipment and software furnished under this Contract and all installation work performed under this Contract conform to the requirements and is free of any defect in material, code or workmanship for a period starting from the first milestone where the equipment (Hardware or Software) is required, delivered, and granted Purchaser milestone acceptance (BLAT, PSA, Site Acceptance, or FSA), and shall conclude one (1) year after Purchaser grants FSA.

21.3 The Contractor shall fix/repair/replace all items received as per his internal procedures with the highest priority allocated.

21.4 If the Contractor becomes aware at any time before acceptance by the Purchaser that a defect exists in any supplies, the Contractor shall coordinate with the Purchaser and promptly correct the defect.

21.5 Defect magnetic, solid state and electronic media storage devices (e.g. CD-ROM's, DVD's, USB sticks, solid state storage drives, hard drives) shall remain NATO property, at no additional cost, and not be returned to the Contractor when being replaced. Any such defect storage devices shall be replaced by the Contractor with new storage devices at no additional cost to the Purchaser.

21.6 The Contractor shall be responsible for the provision of any alternative or superseding items, should the original part be no longer available, ensuring compliance with the original design provided by this Contract.

21.7 During the warranty period, the Contractor shall be responsible for supplying all COTS hardware and software upgrades and updates. The availability of COTS hardware and software upgrades and updates shall be made known to the Purchaser and, if proposed for introduction by the Contractor for whatever

reason, including any corrective action for an identified fault, shall always be subject to Purchaser approval.

- 21.8 The Contractor shall not be responsible for the correction of defects in Purchaser furnished property, except for defects in installation, unless the Contractor performs, or is obligated to perform, any modifications or other work on such property. In that event, the Contractor shall be responsible for correction of defects that result from the modifications or other work.

22 PLACE AND TERMS OF DELIVERY

- 22.1 This Article replaces Clause 20 of the Contract General Provisions.
- 22.2 All deliverables under this Contract shall be delivered DDP (“Delivered Duty Paid”) as defined by the INCOTERMS published by the International Chamber of Commerce (Publication No. 560) to the places and at such times as stipulated in the Schedule of Supplies and Services. The Contractor shall note that the Purchaser is exempt from customs duties and Value Added Tax as per Clause 26 – “Taxes and Duties” of the Contract General Conditions.
- 22.3 Partial deliveries are acceptable as long as all related shipping costs are born by the Contractor and subject to advance notification and agreement from the Purchaser.
- 22.4 The Contractor shall, for the purpose of transportation, package, crate, or otherwise prepare the various supplies in accordance with the best commercial practises for the type of supplies involved, giving due consideration to shipping and other hazards associated with the transportation of consignments overseas.
- 22.5 The CLIN number in the Schedule is not indicative of the order of installation of the BCA at the sites. The Contractor shall be responsible for proposing the installation sequence and to meet all milestones in accordance with SOW requirements. The Purchaser may change the stated destination and/or implementation sequence up to 30 days prior to scheduled delivery at no change in the Contract price. If the Purchaser makes a change in destination in less than 30 days prior to scheduled delivery, the Contractor may submit a request for contract adjustment under the clause of this Contract entitled "Changes".
- 22.6 If the Contractor foresees that delivery of BCA may be accelerated at some sites without impacting risk, quality, and performance, the Contractor will notify the Purchaser of such acceleration(s), with supporting arguments. The Purchaser may concur with such accelerations if it can meet its site readiness and inspection and acceptance obligations. The Purchaser reserves the right

to refuse such requests for early delivery and insist the Contract delivery schedule be maintained in an unmodified form.

- 22.7 The Contractor shall start work on each site, only after notification by the Purchaser that the site is ready for start of work.

23 SUPPLEMENTAL AGREEMENT(S), DOCUMENTS AND PERMISSIONS

- 23.1 If any supplemental agreements, documents and permissions are introduced after Contract award, the execution of which by the Purchaser is/ are required by national law or regulation, and it is determined that the Contractor failed to disclose the requirement for the execution of such agreement from the Purchaser prior to Contract signature, the Purchaser may terminate this Contract for Default, in accordance with Clause 39 (Termination for Default) of the Contract General Provisions.

- 23.2 Supplemental agreement(s), documents and permissions, the execution of which by the Purchaser is/are required by national law or regulation and that have been identified by the Contractor prior to the signature of this contract, but have not yet been finalised and issued by the appropriate governmental authority, are subject to review by the Purchaser. If such supplemental agreement(s), documents and permissions are contrary to cardinal conditions of the signed contract between the Parties, and the Purchaser and the appropriate governmental authority cannot reach a mutual satisfactory resolution of the contradictions, the Purchaser reserves the right to terminate this contract and the Parties agree that in such case the Parties mutually release each other from claim for damages and costs of any kind, and any payments received by the Contractor from the Purchaser will be refunded to the Purchaser by the Contractor.

- 23.3 National CIS Security Authority (NCSA) Certificates are not considered to be supplemental agreements within the meaning of this article.

24 SOFTWARE

- 24.1 The Purchaser reserves the right to exclude from the awarded Contract the purchase of software licenses for which NATO has established centralized Contracts. In this case, the contract terms, schedule and prices will be modified accordingly, and the software licenses will be provided to the Contractor in the form of "Purchaser Furnished Equipment".

25 TOTAL SYSTEM PERFORMANCE RESPONSIBILITY AND COMPREHENSION

- 25.1 The Contractor warrants that he has read, understood and agreed to implement each and all terms, clauses, specifications (including interfaces) and

conditions specified in the Contract and that his signature of the Contract is an acceptance, without reservations, of the said Contract terms within their normal and common meaning.

- 25.2 The Statement of Work (SOW), including annexes, of this Contract set forth the performance requirements for the Contractor's proposed work as called for under this Contract. Accordingly, notwithstanding any conflict or inconsistency which hereafter may be found between achievement of the aforesaid performance requirements and adherence to the Contractor's proposed design for the work, the Contractor hereby warrants that the Deliverables will meet the performance requirements of the said SOW and its annexes.
- 25.3 The Contractor hereby acknowledges that he has no right to assert against the Purchaser any claims or demands with respect to the aforesaid specifications as are in effect on the date of award of this Contract that are based upon impossibility of performance, defective, inaccurate, impracticable, insufficient or invalid specifications, implied warranties of suitability of such specifications, or otherwise derived from the aforesaid specifications, and hereby waives any claims or demands so based or derived as might otherwise arise.
- 25.4 Notwithstanding the "Changes" Clause or any other Clause of the Contract, the Contractor hereby agrees that no changes to the aforesaid specifications which may be necessary to permit achievement of the performance requirements specified herein for the Contractor's proposed work shall entitle the Contractor either to any increase in the fixed price as set forth in this Contract or to any extension of the delivery times for the work beyond the period of performance in the Schedule of Supplies and Services.
- 25.5 The Contractor shall be fully responsible for the integration of all its sub-systems and components, and hereby agrees to make certain that any or all required inspection and acceptance test procedures are accomplished and are sufficient to meet the specifications. Further, the Contractor agrees that all subsystems and components will be installed and integrated into the systems to be delivered under this Contract.

26 OBSOLESCENCE

- 26.1 It is the responsibility of the Contractor to ensure that adequate supplies of replacement parts and equipment are available to perform the services for the duration of the Period of Performance. It is recognised that in some cases, the end of production of certain items of hardware and/or the end of support for certain software and software tools may occur suddenly and/or with limited or no warning. In the case where limited or no warning has been provided or where the acquisition of logistics stocks is not an adequate response, the Contractor shall notify the Purchaser of the event in writing as early as practicable after the Contractor has first knowledge. The notification shall

provide a brief description of the nature of the event and the potential impact of the event on the ability of the Contractor to meet the performance requirements of the SOW and its annexes. The Contractor shall further provide recommendations in the form of one or more Engineering Change Proposals (ECPs) as to the solution(s) to the potential impacts. These recommendations shall provide a full life cycle cost of implementation and support as well as the technical risks and impacts involved if the solution(s) or each of the solutions were implemented (trade off analysis).

26.2 ECPs issued pursuant to this Clause may also include proposals for Optimisation as set forth in Clause 27 below.

26.3 After review and analysis, the Purchaser will inform the Contractor of the acceptance of one or more ECP(s) and the changes which will be incorporated into the Contract by formal Amendment. The Purchaser may also decide to take no action and accept the impact on system performance/supportability as detailed by the Contractor. In such a case, an Amendment to the Contract will be executed changing the aspects of the Contract as required to reflect the impact of not taking any action.

27 OPTIMISATION

27.1 The Contractor is encouraged to examine methods and technology that may increase efficient operation and management of the system(s) on which the required services are provided to the Purchaser, thus reducing operating and manpower costs and the overall cost to the Purchaser, while maintaining an acceptable level of quality and risk.

27.2 The Contractor may, at any time during the Period of Performance, introduce Engineering Change Proposals (ECPs) offering innovations and/or technology insertion with a view towards reducing the overall cost to the Purchaser, while maintaining an acceptable level of quality and risk.

27.3 Any such ECP submitted shall cite this Clause as the basis of submission and provide the following information:

27.3.1 a detailed description of the technical changes proposed, the advantages, both long and short term, and an analysis of the risks of implementation;

27.3.2 a full analysis of the prospective savings to be achieved in both equipment and manpower, including, as appropriate, utility and fuel consumption and NATO manpower, travel, etc;

27.3.3 a full impact statement of changes that the Purchaser would be required to make, if any, to its operational structure and management procedures;

- 27.3.4 a fully detailed proposal of any capital investment necessary to achieve the savings;
- 27.3.5 a schedule of how the changes would be implemented with no or minimal negative impact to on-going performance and operations.
- 27.4 Conflict of Interest Mitigation Plan, if any is incorporated in the contract, should be also detailed.
- 27.5 The Contractor has the responsibility of formulating and forwarding a proposed mitigation plan to the Purchaser, for review and consideration. This responsibility arises when the Contractor first learns of an actual, apparent, or potential conflict of interest.
- 27.6 If the Purchaser in his/her discretion determines that the Contractor's actual, apparent, or potential conflict of interest remains, or the measures proposed are insufficient to avoid or mitigate the conflict, the Purchaser will direct a course of action to the Contractor designed to avoid, neutralize, or mitigate the conflict of interest. If the parties fail to reach agreement on a course of action, or if having reached such agreement the Contractor fails to strictly adhere to such agreement during the remaining period of Contract performance, the Purchaser has the discretion to terminate the Contract for default or alternatively refrain from exercising any further Option or Work Package under the contract.
- 27.7 The Contractor's misrepresentation of facts in connection with a conflict of interest reported or a Contractor's failure to disclose a conflict of interest as required shall be a basis for default termination of this contract.

28 THIRD PARTIES

- 28.1 The Contractor shall be aware of the possible need to work closely with and participate in meetings and reviews to be held jointly with third parties who perform work which contributes to, or is strongly related to, work conducted under this Project.
- 28.2 The Contractor shall have no rights to raise claims, ask for delays or interrupt the performance of the Contract on the basis of, or in connection with, his responsibilities to work/co-ordinate with third parties running work on or related to this Project.
- 28.3 The above described effort is already included in the Total Firm Fixed price of this Contract and the Contractor shall have no recourse for additional costs or delays in the performance of this Contract on the basis of the above described effort.

28.4 The Purchaser reserves the right to make technical documentation, even in draft version, delivered under this Project available to any third parties.

29 TECHNICAL DIRECTION

29.1 The Contract will be administered by the Purchaser in accordance with the Clause 5 of these Contract Special Provisions entitled “Contract Administration”.

29.2 The individuals working on this Contract shall perform the effort within the general scope of work identified in the Contract Part III - Statement of Work (SOW). This effort will be directed on a more detailed level by the Purchaser’s Project Manager who will provide detailed tasking and instruction on how to proceed.

29.3 The Purchaser reserves his right to assign a Technical Representative who will provide the Contractor personnel with instruction and guidance, within the general scope of work, in performance of their duties and working schedule.

29.4 Neither the Purchaser’s Project Manager as identified in Clause 24 of these Contract Special Provisions, nor any Technical Representative has the authority to change the terms and conditions of the Contract. If the Contractor has reason to believe that the Project Manager/Technical Representative is requesting products and services on terms inconsistent with that in the scope of the Contract, the Contractor shall immediately inform the Purchaser’s Contracting Authority for confirmation of the actions. Failure to obtain confirmation that the action of the Project Manager is under the authority of the Contract shall render any subsequent claim null and void.

29.5 Upon receipt of such notification above, the Purchaser’s Contracting Authority will:

- a) confirm the effort requested is within scope, or
- b) confirm that the instructions received constitute a change and request a quotation for a modification of scope and/or price, or
- c) rescind the instructions.

30 OPTIONS

- 30.1 The Purchaser shall have the right to exercise any or all of the Options so identified in Part I Schedule of Supplies and Services until the end of the longest warranty period at the prices and at the same terms and conditions as per the contract. If the Purchaser exercises such options, the Contractor shall deliver such specified quantities of additional or alternative supplies and services at such times and to such destinations as instructed by the Purchaser.
- 30.2 Prices for all optional line items shall have a validity period that corresponds to the option exercise period cited above.
- 30.3 The Purchaser may increase the quantity of supplies and services as set forth in any line item of Part I - Schedule of Supplies and Services. The Contractor will use all reasonable endeavours to maintain the prices specified therein. Changes to these prices shall be accompanied with documentation and explanation of the change. If this Option is exercised, delivery of the added items shall be to the same destination as specified in the basic Contract; unless otherwise specified on the written notice. If the Contract provides for multiple destinations, the Purchaser will specify to which destination(s) the additional quantities are to be shipped. If the Purchaser specifies a destination that is not part of the basic Contract requirements, the Parties will agree to an equitable adjustment as may be required to reflect any additional costs incurred by the Contractor in making such delivery.
- 30.4 The Contractor understands that there is no obligation under this contract for the Purchaser to exercise any of the optional line items and that the Purchaser bears no liability should it decide not to exercise the options (totally or partially). Further, the Purchaser reserves the right to order another Contractor (or the same), to perform the tasks described in the optional line items of the current contract through a new contract with other conditions.
- 30.5 The options shall be exercised by written amendment to the contract.

31 SOFTWARE

- 31.1 The Purchaser reserves the right to exclude from the awarded Contract the purchase of software licenses for which NATO has established centralized Contracts. In this case, the Contract terms, schedule and prices will be modified accordingly, and the software licenses will be provided to the Contractor in the form of "Purchaser Furnished Property (including software)".
- 31.2 Where the term Purchaser Furnished Equipment (PFE) is used it should be interpreted as Purchaser Furnished Property as defined in the Contract General Provisions.

NATO UNCLASSIFIED

IFB-CO-14311-BCA

Part III – Contract General Provisions

NATO COMMUNICATIONS AND INFORMATION AGENCY



CONTRACT GENERAL PROVISIONS

V 1.0 dated 16 Oct 2014

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1. ORDER OF PRECEDENCE

In the event of any inconsistency in language, terms or conditions of the various parts of this Contract, precedence will be given in the following order:

- 1.1. The Signature Page;
- 1.2. The Contract Schedules, Part I;
- 1.3. The Contract Special Provisions, Part II;
- 1.4. The Contract General Provisions, Part III;
- 1.5. The Statement of Work, Part IV of the Contract;
- 1.6. The Annexes to the Statement of Work.

2. DEFINITIONS OF TERMS AND ACRONYMS

- 2.1 **Assembly** - An item forming a portion of equipment that can be provisioned and replaced as an entity and which normally incorporates replaceable parts or groups of parts.
- 2.2 **Acceptance** - Acceptance is the act by which the Contracting Authority recognises in writing that the delivered Work meets the Contract requirements.
- 2.3 **Claims** - A written demand or written assertion by one of the Parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of Contract terms, or other relief arising under or in relation to this Contract.
- 2.4 **Clause** - A provision of the Special or General Provisions of this Contract.
- 2.5 **Codification Authority** - The National Codification Bureau (NCB) or authorised agency of the country in which the Work is produced.
- 2.6 **Commercial Off-the-Shelf Items (COTS)** - The term “Commercially Off-the-Shelf Item (COTS)” means any item that is a commercial item, customarily used by the general public, that has been sold, leased, or licensed to the general public or has been offered for sale, lease or license to the general public;
 - a) is sold in substantial quantities in the commercial marketplace; and
 - b) is offered to the Purchaser, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace.
- 2.7 **Component** - A part or combination of parts, having a specific function, which can be installed or replaced only as an entity.

- 2.8 **Contractor Background IPR** - Any IPR owned by the Contractor and/or any Sub-contractor or licensed by a third party to the Contractor which is not created in relation to or as the result of work undertaken for any purpose contemplated by the Contract and which is needed for the performance of the Contract or for the exploitation of Foreground IPR.
- 2.9 **Correction** - Elimination of a Defect.
- 2.10 **Contract** - The agreement concluded between the Purchaser and Contractor, duly signed by both contracting parties. The Contract includes the documents referred to in Clause 1 (Order of Preference).
- 2.11 **Contracting Authority** - The General Manager of the NCI Agency, the Director of Acquisition, the Chief of Contracts of the NCI Agency or the authorised representatives of the Chief of Contracts of the NCI Agency.
- 2.12 **Contractor** - The person or legal entity from a Participating Country which has signed this Contract and is a Party thereto.
- 2.13 **Day** - A calendar day
- 2.14 **Defect** - Any condition or characteristic in any Work furnished by the Contractor under the Contract that is not in compliance with the requirements of the Contract.
- 2.15 **Deliverable** - Any and all goods (including movable and immovable goods) to be delivered pursuant to the terms of this Contract including, without limitation, building, raw materials, components, intermediate Assemblies, Parts, end products, equipment, documentation, data, software.
- 2.16 **Design Defect** - Defect attributable to incompatibility, unsuitability or erroneous application of theory, drawings or formula.
- 2.17 **Effective Date of Contract (or "EDC")** - The date upon which this Contract is deemed to start. Unless otherwise specified, a Contract enters into force on the date of the last signature of the Contract by the Parties.
- 2.18 **Failed Component** - A part or combination of parts, having a specific function, which can be installed or replaced only as an entity which ceases to perform in a manner consistent with its intended use and specifications of the Contract.
- 2.19 **Foreground IPR** - Any IPR created by the Contractor or any subcontractor of the Contractor in the course of or as the result of work undertaken for any purpose contemplated by the Contract.
- 2.20 **IPR** - Any intellectual property rights of any qualification irrespective of their stage of development or finalisation, including but not limited to patents, trademarks (registered or not), designs and models (registered or not) and applications for the same, copyright (including on computer software), rights in databases, know-how, confidential information and rights in records (whether

or not stored on computer) which includes technical and other data and documents.

- 2.21 **Manufacturing Defect** - Defect attributable to improper manufacturing processes, testing or quality control procedures.
- 2.22 **NATO** - The North Atlantic Treaty Organisation. For the purpose of this contract, the term NATO includes NATO bodies, the NATO military command structure, agencies and NATO nations.
- 2.23 **NCI AGENCY** - The NATO Communications and Information Agency. The NCI Agency is part of the NCIO. The General Manager of the Agency is authorised to enter into contracts on behalf of the NATO CI Organisation.
- 2.24 **NATO COMMUNICATIONS AND INFORMATION ORGANISATION (NCIO)**- The NATO Communications and Information Organisation. The NCI Organisation constitutes an integral part of the North Atlantic Treaty Organisation (NATO) The NCI Organisation is the legal personality from whence flows the authority of its agent, the NCI Agency, to enter into contracts.
- 2.25 **NATO Purposes** - Activities conducted by or on behalf of NATO to promote the common defence and common interests of NATO, such as, among others, NATO operations, NATO procurement, NATO training and NATO maintenance.
- 2.26 **Part** - An item of an assembly or sub-assembly, which is not normally further broken down.
- 2.27 **Participating Country** - A NATO member country that participates in financing the effort.
- 2.28 **Parties** - The Contracting Parties to this Contract, i.e., the Purchaser and the Contractor.
- 2.29 **Purchaser** - The NCI Organisation, as represented by the General Manager, NCI Agency. The Purchaser is the legal entity who awards and administers the Contract on behalf of NATO and stands as one of the Contracting Parties.
- 2.30 **Purchaser Background IPR** - Any IPR owned by the Purchaser as of the Effective Date of Contract and which has been developed by, assigned to or licensed to the Purchaser prior to the Effective Date of Contract.
- 2.31 **Purchaser Furnished Property** - Any item of equipment, material, document, technical data, information and Software or any other item of property furnished by the Purchaser to the Contractor required or useful for the performance of the Contract. The Purchaser Furnished Property, if any, shall be detailed in the Contract.
- 2.32 **Software (Computer Software)** - A computer program comprising a series of instructions, rules, routines regardless of the media in which it is recorded, that allows or cause a computer to perform a specific operation or a series of operations.

- 2.33 **Software Defect** - Any condition or characteristic of Software that does not conform with the requirements of the Contract.
- 2.34 **Sub-Assembly** - A portion of an Assembly consisting of two or more parts that can be provisioned and replaced as an entity. The definition purposely excludes Components and/or Parts.
- 2.35 **Sub-contract** - Any agreement made by the Contractor with any third party in order to fulfil any part of the obligations under this Contract. Sub-contracts may be in any legal binding form, e.g., contract, purchase order, etc.
- 2.36 **Sub-contractor** - Any person or legal entity directly or indirectly under Sub-contract to the Contractor in performance of this Contract.
- 2.37 **Third Party IPR** - Any IPR owned by a third party not being the Purchaser or the Contractor or its Subcontractor, which is needed for the performance of the Contract or for the exploitation of Foreground IPR. This includes, for example, third party software, including open source software.
- 2.38 **Work** - Any deliverable, project design, labour or any service or any other activity to be performed by the Contractor under the terms of this Contract.

3. **AUTHORITY**

- 3.1. All binding contractual instruments and changes, including amendments, additions or deletions, as well as interpretation of and instructions issued pursuant to this Contract shall be valid only when issued in writing by the Purchaser and signed by the Contracting Authority only.
- 3.2. No direction which may be received from any person employed by the Purchaser or a third party shall be considered as grounds for deviation from any of the terms, conditions, specifications or requirements of this Contract except as such direction may be contained in an authorised amendment to this Contract or instruction duly issued and executed by the Contracting Authority. Constructive change may not be invoked by the Contractor as a basis for Claims under this Contract.
- 3.3. The entire agreement between the Parties is contained in this Contract and is not affected by any oral understanding or representation, whether made previously to or subsequently to this Contract.
- 3.4. Personal notes, signed minutes of meetings, comments to delivered documentation and letters, e-mails and informal messages from project or other Purchaser staff which may indicate the intent and willingness to make changes to the Contract, do not implement the change to the Contract and shall not be used as a basis for claiming change to the Contract by the Contractor.

4. APPROVAL AND ACCEPTANCE OF CONTRACT TERMS

- 4.1. By his signature of the Contract, the Contractor certifies that he has read and unreservedly accepts and approves of all terms and conditions, specifications, plans, drawings and other documents which form part of and/or are relevant to the Contract. The Contractor further agrees that the terms of the Contract take precedence over any proposals or prior commitments made by the Contractor in order to secure the Contract. Contractor also hereby waives any and all rights to invoke any of the Contractor's general and special terms and conditions of sales and/or supply.

5. LANGUAGE

- 5.1. All written correspondence, reports, documentation and text of drawings delivered to the Purchaser by the Contractor shall be in the English language.

6. AUTHORISATION TO PERFORM/CONFORMANCE TO NATIONAL LAWS AND REGULATIONS

- 6.1. The Contractor warrants that he and his Sub-contractors are duly authorised to operate and do business in the country or countries in which this Contract is to be performed and that he and his Sub-contractors have obtained or will obtain all necessary licences and permits required in connection with the Contract. No claim for additional monies with respect to any costs or delay to obtain the authorisations to perform shall be made by the Contractor.
- 6.2. The Contractor acknowledges that he and his Sub-contractors are responsible during the performance of this Contract for ascertaining and complying with all applicable laws and regulations, including without limitation: labour standards, environmental laws, health and safety regulations and export controls laws and regulations in effect at the time of Contract signature or scheduled to go into effect during Contract performance. Failure to fully ascertain and comply with such laws, regulations or standards shall not be the basis for claims for change to the specifications, terms, conditions or monetary value of this Contract.

7. FIRM FIXED PRICE CONTRACT

- 7.1 This is a Firm Fixed Price Contract. The Firm Fixed Price of this Contract is as stated on the signature page of the Contract or any amendments thereto. The Purchaser assumes no liability for costs incurred by the Contractor in excess of the stated Firm Fixed Price except as may be authorised under

certain provisions of this Contract.

8. PERFORMANCE GUARANTEE

- 8.1. As a guarantee of performance under the Contract, the Contractor shall deposit with the Purchaser within thirty (30) calendar days from the Effective Date of Contract a bank guarantee (the "Performance Guarantee") denominated in the currency of the Contract, to the value of ten per cent (10%) of the total Contract price.
- 8.2. The Performance Guarantee, the negotiability of which shall not elapse before the expiration of the warranty period, or such other period as may be specified in the Contract, shall be made payable to the Purchaser and shall be in the form of certified cheques or a Standby Letter of Credit subject to the agreement of the Purchaser. In the case of a Standby Letter of Credit, payment shall be made to the Purchaser without question and upon first demand by the Purchaser against a certificate from the Purchaser's Contracting Authority that the Contractor has not fulfilled its obligations under the Contract. The Contractor shall have no right to enjoin or delay such payment.
- 8.3. Certified Cheques issued to fulfil the requirements of the Performance Guarantee will be cashed by the Purchaser upon receipt and held in the Purchaser's account until the term of the Performance Guarantee has expired.
- 8.4. The standby letter of credit shall be subject to Belgian Law and shall be issued by (i) a Belgian bank, (ii) the Belgian subsidiary of a foreign bank licensed to provide financial services in Belgium; or (iii) an insurance company licensed to do business in Belgium and belonging to a Belgian banking institution provided the banking institution guarantees explicitly the demand for payment, unless otherwise specified by the Purchaser.
- 8.5. The Contractor shall request in writing relief from the Performance Guarantee upon expiration of the warranty period or such other period as may be specified in the Contract and such relief may be granted by the Purchaser.
- 8.6. The Contractor shall be responsible, as a result of duly authorised adjustments in the total contract price and/or period of performance by the Purchaser, for obtaining a commensurate extension and increase in the Performance Guarantee, the value of which shall not be less than ten per cent (10%) of the total contract price (including all amendments), and for depositing such guarantee with the Purchaser, within thirty (30) calendar days from the effective date of aforesaid duly authorised adjustment.

- 8.7. The failure of the Contractor to deposit and maintain such Performance Guarantee with the Purchaser within the specified time frame, or any extension thereto granted by the Purchaser's Contracting Authority, is a material breach of the Contract terms and conditions subject to the provisions of the Contract regarding Termination for Default.
- 8.8. The rights and remedies provided to the Purchaser under the present Clause are in addition to any other rights and remedies provided by law or under this Contract. The certificate described in Clause 8.2 above shall not be regarded as a Termination for Default and this Clause is in addition to and separate from the Clause of the Contract detailing termination for default.
- 8.9. If the Contractor elects to post the Performance Guarantee by Standby Letter of Credit, the form of the document shall be substantially as follows:

PERFORMANCE GUARANTEE STANDBY LETTER OF CREDIT

Standby Letter of Credit Number: _____

Issue Date: _____

Initial Expiry Date: _____

Final Expiry Date: _____

Beneficiary: NCI Agency, Finance, Accounting & Operations
Boulevard Leopold III, B-1110, Brussels
Belgium

- 1. We hereby establish in your favour our irrevocable standby letter of credit number {number} by order and for the account of (NAME AND ADDRESS OF CONTRACTOR) in the amount of _____ We are advised this undertaking represents fulfilment by (NAME OF CONTRACTOR) of certain performance requirements under Contract No. _____ dated _____ between the NCI Agency ("NCIA and (NAME OF CONTRACTOR).
- 2. We hereby engage with you that drafts drawn under and in compliance with the terms of this letter of credit will be duly honoured upon presentation of documents to us on or before the expiration date of this letter of credit.
- 3. Funds under this letter of credit are available to you without question or delay against presentation of a certificate signed by the NCI Agency Contracting Officer which states:

“(NAME OF CONTRACTOR) has not fulfilled its obligations under Contract No. _____ dated _____ between

NCI Agency and (NAME OF CONTRACTOR) (herein called the “Contract”), and the NCI Agency, as beneficiary, hereby draws on the standby letter of credit number _____ in the amount denominated in the currency of the Contract, Amount up to the maximum available under the LOC, such funds to be transferred to the account of the Beneficiary number _____ (to be identified when certificate is presented).”

Such certificate shall be accompanied by the original of this letter of credit.

4. This Letter of Credit is effective the date hereof and shall expire at our office located at _____ (Bank Address) _____ on _____. All demands for payment must be made prior to the expiry date.
5. It is a condition of this letter of credit that the expiry date will be automatically extended without amendment for a period of one (1) year from the current or any successive expiry date unless at least 90 (ninety) calendar days prior to the then current expiry date we notify you by registered mail and notify (NAME OF CONTRACTOR) that we elect not to extend this letter of credit for such additional period. However, under no circumstances will the expiry date extend beyond _____ (“Final Expiry Date”) without amendment.
6. We may terminate this letter of credit at any time upon 90 (ninety) calendar days notice furnished to both (NAME OF CONTRACTOR) and the NCI Agency by registered mail.
7. In the event we (the issuing bank) notify you that we elect not to extend the expiry date in accordance with paragraph 6 above, or, at any time, to terminate the letter of credit, funds under this credit will be available to you without question or delay against presentation of a certificate signed by the NCI Agency Contracting Officer which states:

“The NCI Agency has been notified by {issuing bank} of its election not to automatically extend the expiry date of letter of credit number {number} dated {date} pursuant to the automatic renewal clause (or to terminate the letter of credit). As of the date of this certificate, no suitable replacement letter of credit, or equivalent financial guarantee has been received by the NCI Agency from, or on behalf of (NAME OF CONTRACTOR). (NAME OF CONTRACTOR) has, therefore, not fulfilled its obligations under Contract No. _____ dated _____ between NCI Agency and (NAME OF CONTRACTOR), and the NCI Agency, as beneficiary, hereby draws on the standby letter of credit number _____ in the amount of (Amount up to the maximum available under the LOC), such funds to be transferred to the account of the Beneficiary number _____ (to be identified when certificate is

presented).”

Such certificate shall be accompanied by the original of this letter of credit and a copy of the letter from the issuing bank that it elects not to automatically extend the standby letter of credit, or terminating the letter of credit.

8. The Beneficiary may not present the certificate described in paragraph 7 above until 20 (twenty) calendar days prior to a) the date of expiration of the letter of credit should {issuing bank} elect not to automatically extend the expiration date of the letter of credit, b) the date of termination of the letter of credit if {issuing bank} notifies the Beneficiary that the letter of credit is to be terminated in accordance with paragraph 6 above.
9. Multiple partial drawings are allowed to the maximum value of the standby letter of credit.
10. This letter of credit sets forth in full the terms of our undertaking, and this undertaking shall not in any way be modified, amended, or amplified by reference to any document, instrument, or agreement referred to herein (except the International Standby Practices (ISP 98) hereinafter defined) or in which this letter of credit is referred to or to which this letter of credit relates, and any such reference shall not be deemed to incorporate herein by reference any document, instrument, or agreement.
11. This Letter of Credit is subject to The International Standby Practices-ISP98 (1998 Publication) International Chamber of Commerce Publication No.590.

9. PARTICIPATING COUNTRIES

- 9.1 Unless prior written authorisation of the Purchaser has been obtained, none of the Work, shall be performed other than by firms from and within NATO Participating Countries. Unless otherwise specified in the Contract Special Provisions, the Participating Countries are the twenty-eight (28) Member Nations of the North Atlantic Treaty Organisation.
- 9.2 Unless prior written authorisation of the Purchaser has been obtained, no material or items of equipment down to and including identifiable Sub-Assemblies shall be manufactured or assembled by a firm other than from and within a NATO Participating Country.
- 9.3 The Contractor shall not place any Sub-contracts outside the NATO Participating Countries without the prior written authorisation of the Purchaser.
- 9.4 Unless prior written authorisation of the Purchaser has been obtained, the intellectual property rights for all software and documentation incorporated by the Contractor and/or its Sub-contractors into the Work shall vest with persons or legal entities from and within NATO participating nations and no royalties or licence fees for such software and documentation shall be paid by the

Contractor to any source that does not reside within a NATO participating nation.

- 9.5 Any modification in the nationality, ownership and/or change of control of the Contractor and/or its Sub-contractor(s) shall be immediately notified in writing to the Purchaser with all necessary details to allow the Purchaser to determine whether or not the Contractor and/or its Sub-contractors continue to comply with the Clauses above. Non-compliance with the Clauses above, by the Contractor and/or its Subcontractor may constitute ground for termination of this Contract under Clause 39 (Termination for Default).

10. SUB-CONTRACTS

- 10.1 The Contractor shall place and be responsible for the administration and performance of all Sub-contracts including terms and conditions which he deems necessary to meet the requirements of this Contract in full.
- 10.2 Prior to the Sub-contractors being given access to any classified information, the Contractor shall ensure that any Sub-contractor that has a need to access classified information for the performance of any part of this Contract has been granted the appropriate facility and personnel security clearances by the Sub-contractor's national authorities and that such clearances are still in effect at the time the information is disclosed and remains in effect throughout the performance of the work to be carried out under the Sub-contract concerned.
- 10.3 The Contractor shall seek the approval in writing of the Purchaser prior to the placing of any Sub-contract if:
- 10.3.1 the Sub-contract was not part of the Contractor's original proposal;
- and
- 10.3.2 the value of the Sub-contract is known or estimated to exceed 15 per cent of the total Contract value; or
 - 10.3.3 the Sub-contract is one of a number of Sub-contracts with a single Sub-contractor for the same or related Work under this Contract that in the aggregate are known or expected to exceed 15 per cent of the total Contract value.
- 10.4 The Contractor shall inform the Purchaser of any change in Sub-contractors for Sub-contracts of a value known or estimated to exceed 15 per cent of the total Contract value.
- 10.5 The Contractor shall submit a copy of any such proposed Sub-contract including prices when seeking approval to the Contracting Authority but such approval by the Contracting Authority shall in no way relieve the Contractor of

his responsibilities to fully achieve the contractual and technical requirements of this Contract.

- 10.6 The Contractor shall, as far as practicable, select Sub-contractors on a competitive basis consistent with the objectives and requirements of the Contract.

11. SECURITY

- 11.1 The Contractor shall comply with all security measures as are prescribed by the Purchaser and the national security authority or designated security agency of each of the NATO countries in which the Contract is being performed. The Contractor shall be responsible for the safeguarding of classified information, documentation, material and equipment entrusted to him or generated by him in connection with the performance of the Contract.

- 11.2 In particular the Contractor undertakes to:

- 11.2.1 appoint an official responsible for supervising and directing security measures in relation to the Contract and communicating details of such measures to the Purchaser on request;
- 11.2.2 maintain, preferably through the official responsible for security measures, a continuing relationship with the national security authority or designated security agency charged with ensuring that all NATO classified information involved in the Contract is properly safeguarded;
- 11.2.3 abstain from copying by any means, without the authorisation of the Purchaser, the national security authority or designated security agency, any classified documents, plans, photographs or other classified material entrusted to him;
- 11.2.4 furnish, on request, information to the national security authority or designated security agency pertaining to all persons who will be required to have access to NATO classified information;
- 11.2.5 maintain at the work site a current record of his employees at the site who have been cleared for access to NATO classified information. The record should show the date of issue, the date of expiration and the level of clearance;
- 11.2.6 deny access to NATO classified information to any person other than those persons authorised to have such access by the national security authority or designated security agency;
- 11.2.7 limit the dissemination of NATO classified information to the smallest number of persons (“need to know basis”) as is

consistent with the proper execution of the Contract;

- 11.2.8 comply with any request from the national security authority or designated security agency that persons entrusted with NATO classified information sign a statement undertaking to safeguard that information and signifying their understanding both of their obligations under national legislation affecting the safeguarding of classified information, and of their comparable obligations under the laws of the other NATO nations in which they may have access to classified information;
- 11.2.9 report to the national security authority or designated security agency any breaches, suspected breaches of security, suspected sabotage, or other matters of security significance which would include any changes that may occur in the ownership, control or management of the facility or any changes that affect the security arrangements and security status of the facility and to make such other reports as may be required by the national security authority or designated security agency, e.g. reports on the holdings of NATO classified material;
- 11.2.10 apply to the Purchaser for approval before Sub-contracting any part of the work, if the Sub-contract would involve that the Sub-contractor would have access to NATO classified information, and to place the Sub-contractor under appropriate security obligations no less stringent than those applied to his own contract;
- 11.2.11 undertake not to utilise, other than for the specific purpose of the Contract, without the prior written permission of the Purchaser or his authorised representative, any NATO classified information furnished to him, including all reproductions thereof in connection with the Contract, and to return all NATO classified information referred to above as well as that developed in connection with the Contract, unless such information has been destroyed, or its retention has been duly authorised with the approval of the Purchaser. Such NATO classified information will be returned at such time as the Purchaser or his authorised representative may direct;
- 11.2.12 classify any produced document with the highest classification of the NATO classified information disclosed in that document.

12. RELEASE OF INFORMATION

- 12.1 Except as otherwise specified elsewhere in the Contract and to the extent that it is demonstratively unavoidable and without prejudice to the Clause 11

(Security), the Contractor and/or his employees shall not, without prior authorisation from the Purchaser, release to third parties any information pertaining to this Contract, its subject matter, performance there under or any other aspect thereof.

- 12.2 The Contractor shall seek the prior written approval of the Purchaser before publishing any press release or disclosing any other information, orally or in writing, in relation to the Contract. The approval of the Purchaser shall be required for both the opportunity and the content of the information.
- 12.3 This provision shall remain in effect after the termination of the Contract and shall cease to apply to any particular piece of information once that information becomes public knowledge other than through an act, default or omission of the Contractor or its Sub-contractors.

13. **PURCHASER FURNISHED PROPERTY**

- 13.1 The Purchaser shall deliver to the Contractor, for use only in connection with this Contract, the Purchaser Furnished Property at the times and locations stated in the Contract. In the event that Purchaser Furnished Property is not delivered by such time or times stated in the Schedule, or if not so stated, in sufficient time to enable the Contractor to meet such delivery or performance dates the Purchaser shall, upon timely written request made by the Contractor, and if the facts warrant such action, equitably adjust any affected provision of this Contract pursuant to Clause 16 (Changes).
- 13.2 In the event that Purchaser Furnished Property is received by the Contractor in a condition not suitable for its intended use, the Contractor shall immediately notify the Purchaser. The Purchaser shall within a reasonable time of receipt of such notice replace, re-issue, authorise repair or otherwise issue instructions for the disposal of Purchaser Furnished Property agreed to be unsuitable. The Purchaser shall, upon timely written request of the Contractor, equitably adjust any affected provision of this Contract pursuant to Clause 16 (Changes).
- 13.3 Title to Purchaser Furnished Property will remain in the Purchaser. The Contractor shall maintain adequate property control records of Purchaser Furnished Property in accordance with sound industrial practice and security regulations.
- 13.4 Unless otherwise provided in this Contract, the Contractor, upon delivery to him of any Purchaser Furnished Property, assumes the risk of, and shall be responsible for, any loss thereof or damage thereof except for reasonable wear and tear, and except to the extent that Purchaser Furnished Property is consumed in the performance of this Contract.

- 13.5 Upon completion of this Contract, or at such earlier dates as may be specified by the Purchaser, the Contractor shall submit, in a form acceptable to the Purchaser, inventory schedules covering all items of Purchaser Furnished Property.
- 13.6 The inventory shall note whether:
- 13.6.1 The property was consumed or incorporated in fabrication of final deliverable(s);
 - 13.6.2 The property was otherwise destroyed;
 - 13.6.3 The property remains in possession of the Contractor;
 - 13.6.4 The property was previously returned
- 13.7 The Contractor shall prepare for shipment, deliver DDP at a destination agreed with the Purchaser, or otherwise dispose of Purchaser Furnished Property as may be directed or authorised by the Purchaser. The net proceeds of any such disposal shall be credited to the Contract price or paid to the Purchaser in such other manner as the Purchaser may direct.
- 13.8 The Contractor shall not modify any Purchaser Furnished Property unless specifically authorised by the Purchaser or directed by the terms of the Contract.
- 13.9 The Contractor shall indemnify and hold the Purchaser harmless against claims for injury to persons or damages to property of the Contractor or others arising from the Contractor's possession or use of the Purchaser Furnished Property. The Contractor shall indemnify the Purchaser for damages caused by the Contractor to the Purchaser, its property and staff and arising out of the Contractor's use of the Purchaser Furnished Property.
14. **CONTRACTOR'S PERSONNEL WORKING AT PURCHASER'S FACILITIES**
- 14.1 The term "Purchaser Facilities" as used in this Clause shall be deemed to include sites, property, utilities, ships or vessels and the term "Facility Representative" shall be deemed to refer to the authority designated by the Purchaser responsible for the site, property, utility, ship or vessel.
- 14.2 The Facility Representative shall provide such available administrative and technical facilities for Contractor's personnel working at Purchaser's Facilities for the purpose of the Contract as in the opinion of the Facility Representative may be necessary for the effective and economical discharge of Work. The Facility Representative shall also determine whether

these facilities will be provided free of charge to the Contractor or determine what charges are payable. The Contractor shall have no claim against the Purchaser for any such additional cost or delay or any additional cost or delay occasioned by the closure for holidays of said facilities, or other reasons, where this is generally published or made known to the Contractor by the Purchaser or his authorised representatives.

- 14.3 The Contractor shall, except as otherwise provided for in the Contract, make good or, at the option of the Purchaser, pay compensation for all damage occurring to any Purchaser's Facilities occasioned by the Contractor, his servants, agents or Sub-contractors, arising from his or their presence and activities in, and use of, the Purchaser's Facilities; provided that this Condition shall not apply to the extent that the Contractor is able to show that any such damage was not caused or contributed to, by his neglect, or default or the neglect or default of his servants, agents or Sub-contractors, or by any circumstances within his or their control.
- 14.4 All property of the Contractor while at a Purchaser Facility shall be at the risk of the Contractor, and the Purchaser shall accept no liability for any loss or damage, except to the extent that any loss or damage is the result of a wilful act or gross negligence on the part of the Purchaser's employees or agents.

15. HEALTH, SAFETY AND ACCIDENT PREVENTION

- 15.1 If the Purchaser notifies the Contractor in writing of any non-compliance in the performance of this Contract with safety and health rules and requirements prescribed on the date of this Contract by applicable national or local laws, ordinances and codes, and the Contractor fails to take immediate corrective action, the Purchaser may order the Contractor to stop all or part of the Work until satisfactory corrective action has been taken. Such an order shall not entitle the Contractor to an adjustment of the Contract price or other reimbursement for resulting increased costs, or to an adjustment of the delivery or performance schedule.

16. CHANGES

- 16.1 The Purchaser may at any time, by written order of the Contracting Authority designated or indicated to be a change order ("Change Order") make changes within the general scope of this Contract, including, without limitation, in any one or more of the following:
- 16.1.1 Specifications (including drawings and designs);
 - 16.1.2 Method and manner of performance of the work, including engineering standards, quality assurance and

- configuration management procedures;
- 16.1.3 Marking and method of shipment and packing;
 - 16.1.4 Place of delivery;
 - 16.1.5 Amount, availability and condition of Purchaser Furnished Property.
- 16.2 The Purchaser shall submit a proposal for Contract amendment describing the change to the Contract.
- 16.3 If any such Change Order causes an increase in the Contractor's cost of, or the time required for, the performance of any part of the Work under this Contract, whether or not changed by any such order, the Contractor shall submit a written proposal for adjustment to the Purchaser describing the general nature and amount of the proposal for adjustment. The Contractor shall submit this proposal for adjustment within thirty (30) days after receipt of a written Change Order under (a) above unless this period is extended by the Purchaser.
- 16.4 If any such Change Order causes a decrease in the Contractor's cost of, or the time required for, the performance of any part of the Work under this Contract, whether or not changed by any such order, the Purchaser shall submit a proposal for adjustment within thirty (30) days from the issuance of the Change Order by submitting to the Contractor a written statement describing the general nature and amount of the proposal for adjustment.
- 16.5 Where the cost of property made obsolete or in excess as a result of a change is included in the Contractor's claim for adjustment, the Purchaser shall have the right to prescribe the manner of disposition of such property.
- 16.6 The Purchaser reserves the right to reject the introduction of the change, after the evaluation of the change proposal, even if the Purchaser initiated such change.
- 16.7 Failure to agree to any requested adjustment shall be a dispute within the meaning of the Clause 41 (Disputes). However, nothing in this Clause shall excuse the Contractor from proceeding with the Contract as changed.
- 16.8 No proposal for adjustment by the Contractor for an equitable adjustment shall be allowed if asserted after final payment and acceptance under this Contract.
- 16.9 Any other written or oral order (which, as used in this paragraph includes direction, instruction, interpretation, or determination) from the Purchaser that causes a change shall be treated as a Change Order under this Clause,

provided, that the Contractor gives the Purchaser a written notice within thirty (30) Days after receipt of such order stating (i) the date, circumstances, and source of the order; (ii) that the Contractor regards the order as a Change Order; and (iii) a detailed cost and time analysis of the impact of the change, and that the Order is accepted in writing by the Purchaser as a Change Order. The timely written notice requirement, as detailed above, remains in force in all cases, even where, for example, the Purchaser has positive knowledge of the relevant facts.

16.10 All tasks and activities carried out by the Contractor in relation to the processing of the Change Order or in relation to this Clause shall form part of the Contractor's routine work and cannot be charged as additional work.

17. STOP WORK ORDER

17.1 The Purchaser may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the Work called for by this Contract for a period of ninety (90) days after the order is delivered to the Contractor, and for any further period to which the Parties may agree.

17.2 Any such stop work order shall be specifically identified as a stop work order issued pursuant to this Clause (the "Stop Work Order"). The Stop Work Order may include a description of the Work to be suspended, instructions concerning the Contractor's issuance of further orders for material or services, guidance to the Contractor on actions to be taken on any Sub-contracts and any suggestion to the Contractor for minimizing costs.

17.3 Upon receipt of such a Stop Work Order, the Contractor shall forthwith comply with its terms and take all reasonable steps to minimise costs incurred allocable to the Work covered by the Stop Work Order during the period of work stoppage. Within a period of ninety (90) days after a Stop Work Order is delivered to the Contractor, or within any extension of that period to which the Parties shall have agreed, the Purchaser shall either:

17.3.1 cancel the Stop Work Order; or

17.3.2 terminate the Work covered by such Stop Work Order as provided in Clause 40 (Termination for Convenience of the Purchaser).

17.4 If a Stop Work Order issued under this Clause is cancelled or the period of the Stop Work Order or any extension thereof expires, the Contractor shall resume work.

17.5 An equitable adjustment shall be made in the delivery schedule or Contract price, or both, and the Contract shall be modified in writing accordingly, if:

- 17.5.1 the Stop Work Order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this Contract, and;
- 17.5.2 the Contractor asserts a Claim for such adjustment within thirty (30) days after the end of the period of work stoppage; provided that, if the Purchaser decides the facts justify such action, he may receive and act upon any such claim asserted at a later date but prior to final payment under this Contract.
- 17.6 If a Stop Work Order is not cancelled and the Work covered by such Stop Work Order is terminated for the convenience of the Purchaser the reasonable costs resulting from the Stop Work Order shall be allowed in arriving at the termination settlement.
- 18. CLAIMS**
- 18.1 The Contractor shall specifically identify the Contract Clause(s) under which the Claim(s) is/are based.
- 18.2 Claims shall be specifically identified as such and submitted:
- 18.2.1 within the time specified in the Clause under which the Contractor alleges to have a Claim. If no time is specified in the Clause under which the Contractor intends to base his Claim, the time limit shall be sixty (60) days from the date the Contractor has knowledge or should have had knowledge of the facts on which he bases his Claim; and
- 18.2.2 before final payment, pursuant to and with the exceptions specified in Clause 33 entitled "Release of Claims".
- 18.2.3 Section 18.2.2 above shall only apply to those Claims for which the Contractor could not have had earlier knowledge and were not foreseeable.
- 18.3 The Contractor shall be foreclosed from his Claim unless he presents complete documentary evidence, justification and costs for each of his Claims within ninety (90) calendar days from the assertion date of such Claims. Claims shall be supported by specifically identified evidence (including applicable historical and planned cost and production data from the Contractor's books and records). Opinions, conclusions or judgmental assertions not supported by such evidence will be rejected by the Purchaser.
- 18.4 An individual breakdown of cost is required for each element of Contractor's Claims at the time of claim submission or for any material revision of the Claim.

18.5 The Contractor shall present, at the time of submission of a Claim, an attestation as follows:

Ithe responsible senior company official authorised to commit the with respect to its claims dated being duly sworn, do hereby depose and say that: (i) the facts described in the claim are current, complete and accurate; and (ii) the conclusions in the claim accurately reflect the material damages or contract adjustments for which the Purchaser is allegedly liable.

.....

.....

SIGNATURE

Date

18.6 Failure to comply with any of the above requirements shall result in automatic foreclosure of the Claim. This foreclosure takes effect in all cases and also where, for example, the Claim is based on additional orders, where the facts are known to the Purchaser, where the Claim is based on defective specifications of the Purchaser or an alleged negligence in the pre-contractual stage.

18.7 Claims submitted by the Contractor will be reviewed by the Contracting Authority. The Contracting Authority will respond within sixty (60) days with a preliminary decision, based on an assessment and evaluation of the facts presented by the Parties, as to whether the Contracting Authority considers the Claim to have merit for consideration. If the preliminary decision of the Contracting Authority is that the Claim, as submitted is without merit, the Contractor shall have fourteen (14) days to present a rebuttal to the Contracting Authority and request reconsideration of the Contracting Authority’s decision. Within thirty (30) days receipt of the Contractor’s request for reconsideration, the Contracting Authority will issue a decision. The time requirements stated herein may be extended by the Contracting Authority in order to accommodate additional preparation efforts and fact finding discussions but the Contracting Authority may not unreasonable extend such a period. A decision that the submitted claim is without merit will be identified as such, will be issued in writing by the Contracting Authority and will be conclusive. A decision may only be challenged by the Contractor through the Disputes provisions described herein.

- 18.8 A decision by the Purchaser that the claim has merit will result in a Contracting Authority request to enter into negotiations with the Contractor to arrive at a mutually agreed fair and equitable settlement. The Contracting Authority's decision will contain a target date for the commencement and conclusion of such operations. If the Parties are unable to arrive at an agreement on a fair and reasonable settlement by the target date for conclusion, or any extension thereto made by the Contracting Authority, the latter may declare that negotiations are at an impasse and issue a preliminary decision as to the fair and reasonable settlement and the reasons supporting this decision. The Contractor shall have a period of thirty (30) days to present a rebuttal to the Contracting Authority and request reconsideration of the Contracting Authority's decision. Within sixty (60) days of receipt of the Contractor's request for reconsideration, the Contracting Authority will issue its decision on the request for reconsideration. This timeframe will be respected unless an authorisation is needed from a NATO or other authority, the schedule for which is beyond the Contracting Authority's control. A decision of the Contracting Authority on the reconsideration of the matter will be identified as such, will be issued in writing by the Contracting Authority and will be conclusive. A decision on the reconsideration may only be challenged by the Contractor through the Disputes provisions described herein.
- 18.9 No Claim arising under this Contract may be assigned by the Contractor without prior approval of the Purchaser.
- 18.10 The Contractor shall proceed diligently with performance of this Contract, pending final resolution of any request for relief, claim appeal, or action arising under the Contract, and comply with any decision of the Contracting Authority.

19. PRICING OF CHANGES, AMENDMENTS AND CLAIMS

- 19.1 Contractor's pricing proposals for Changes, amendments and Claims shall be priced in accordance with the Purchaser's Pricing Principles (Annex 1 hereto and the sample spreadsheet and its "Instructions to Complete" at Appendix 1) or the national government pricing rules and regulations for the Contractor's own country, where in force. The Contractor shall provide cost information accompanied by appropriate substantiation as required by the Purchaser in accordance with Purchaser's Pricing Principles, or such other format as may be agreed between the Contractor and the Purchaser.
- 19.2 With respect to Clause 19.1 above, when the price or price adjustment is based on adequate price competition, established catalogue or market price of commercial items sold in substantial quantities to the general public, or prices set by law or regulation, the Contractor shall be responsible for substantiation of such cases to the satisfaction of the Purchaser.
- 19.3 For the purposes of verifying that the cost or pricing data submitted in conjunction with Clause 19.1 above are accurate, complete and current, the

Purchaser or any Purchaser authorised representative shall have the right of access to the Contractor's facilities to examine, until the expiration of three (3) years from the date of final payment of all sums due under the Contract:

19.3.1 those books, records, documents and other supporting data which will permit adequate evaluation and verification of the cost or pricing data submitted; and/or

19.3.2 the computations and projections which were available to the Contractor as of the date of the Contractor price proposal.

19.4 The Contractor, subject to the provisions of this Clause, shall require Sub-contractors to provide to the Purchaser, either directly or indirectly:

19.4.1 cost or pricing data;

19.4.2 access to Sub-contractor's facilities and records for the purposes of verification of such cost or pricing data; and

19.4.3 a Certificate of Current Cost or Pricing Data, when required.

19.5 If any price, including profit, negotiated in connection with this Contract was proposed, taking any of the following into account:

19.5.1 the Contractor furnished cost or pricing data which was not complete, accurate and current as certified in the Contractor's Certificate of Current Cost or Pricing Data provided in accordance with Clause 19.6 below;

19.5.2 a Sub-contractor, pursuant to Clause 19.4 above or any Sub-contract clause therein required, furnished cost or pricing data which was not complete, accurate and current as certified in the Sub-contractor's Certificate of Current Cost or Pricing Data;

19.5.3 a Sub-contractor or prospective Sub-contractor furnished cost or pricing data which was required to be complete, accurate and current and to be submitted to support a Sub-contract cost estimate furnished by the Contractor but which was not complete, accurate and current as of the date certified in the Contractor's Certificate of Current Cost or Pricing Data; or

19.5.4 the Contractor or a Sub-contractor or prospective Sub-contractor furnished any data, not within 19.5.1 through 19.5.3 above, which, as submitted, was not complete, accurate and current;

19.5.5 then the price and/or cost shall be adjusted accordingly and the Contract shall be modified in writing as may be necessary to reflect such.

19.6 At the time of negotiating any price, including profit, which is based upon the

submission of cost or pricing data by the Contractor, the Contractor shall be required to submit a certificate of current cost or pricing data (“Certificate”).

- 19.6.1 Such Certificates will certify that, to the best of the Contractor's knowledge and belief, cost or pricing data submitted to the Purchaser in support of any proposal for a price, price adjustment or claim, are accurate, complete and current, as per the completion of the negotiations or, in the case of a claim, as per the submission date of the claim.
- 19.6.2 All such Certificates shall be in the format shown below and shall be dated and signed by a responsible officer of the company:

CERTIFICATE OF CURRENT COST OR PRICING DATA

This is to certify that cost or pricing data as submitted, either actually or by specific identification in writing to the Purchaser or his representative in support of.....(*Claim, Amendment, ECP#, etc.*) are accurate, complete and current as of(*Date*).

By submitting the price proposal, the Contractor/sub-Contractor or prospective sub-Contractor grant the Purchaser or his authorized representative(s) the right to examine those records, data and supporting information, used as a basis for the pricing submitted.

Name of Company

Signature

Printed Name of Signatory

Title of Signatory

Date of Signature

19.6.3 The Contractor shall insert the substance of this Clause 19.7 in each Sub-contract.

19.7 For all additional or follow-up agreements which are made for Work which are furnished to the Purchaser without competition, the Contractor shall offer prices on a "Preferred Customer" basis, that is offer prices which are as favourable as those extended to any Government, Agency, Company, Organisation or individual purchasing or handling like quantities of equipment and/or Parts covered by the Contract under similar conditions. In the event that prior to completing delivery under this Contract the Contractor offers any of such items in substantially similar quantities to any customer at prices lower than those set forth herein, the Contractor shall so notify the Purchaser and the prices of such items shall be correspondingly reduced by a supplement to this Contract. Price in this sense means "Base Price" prior to applying any bonus, export tax reduction, turn-over tax exemptions and other reductions based on National Policies.

20. **NOTICE OF SHIPMENT AND DELIVERY**

20.1 Except as may be specified in the Contract Special Provisions, delivery of all items under this Contract shall be made by the Contractor on the basis of "Delivery Duty Paid" (DDP) as defined by the INCOTERMS 2000 (International Chamber of Commerce Publication No. 560). It shall be noted, however, that because the Purchaser is exempted from direct taxes and duty as set forth in Clause 26 (Taxes and Duties), there is no duty to be paid by the Contractor.

20.2 "Delivery" of required Work by the Contractor does not constitute "Acceptance" by the Purchaser for purposes of meeting the requirements of the Contract Schedule where Purchaser acceptance is the stated payment or schedule milestone.

20.3 Thirty (30) Days, or such other period as specified in the Contract, prior to the delivery of any shipment of Work, the Contractor shall give prepaid notice of shipment to the Purchaser. The Notice of Shipment shall contain, as appropriate, the request for customs form 302, or equivalent document, which shall enable any carrier to conduct duty free import/export clearance through

customs for the Purchaser on behalf of NATO.

- 20.4 The customs form 302 is an official customs clearance declaration issued in advance of shipment by the Purchaser to provide certified information as to the duty free import, export, or transit of NATO consignments between NATO countries.
- 20.5 The Notice of Shipment and request for Form 302 or equivalent document shall contain the following information:
- 20.5.1 Purchaser's Contract number;
 - 20.5.2 Contract item number, designation and quantities;
 - 20.5.3 destination;
 - 20.5.4 number and description of the packages (gross and net weight);
 - 20.5.5 description of the goods and their value (for custom purpose only, not commercial value)
 - 20.5.6 consignor's name and address;
 - 20.5.7 consignee's name and address;
 - 20.5.8 method of shipment (i.e. road, rail, sea, air, etc.);
 - 20.5.9 name and address of freight forwarder.
- 20.6 Forwarding Agents, Carriers or other responsible organisations shall be informed by the Contractor of the availability of Form 302 or equivalent document and how the form shall be utilised to avoid the payment of custom duties. Form 302 or equivalent document shall be incorporated in all shipping documents provided to the carrier.
- 20.7 Upon receipt of the Notice of Shipment from the Contractor, the Purchaser may require the Contractor to send copies of the Notice of Shipment to the receiving parties and the Contractor shall comply with this requirement.

21. **INSPECTION AND ACCEPTANCE OF WORK**

- 21.1 For the purposes of this Clause, Work does not include documentation which is addressed in Clause 22 (Inspection and Acceptance of Documentation) hereafter.
- 21.2 Unless otherwise specifically provided for in the Contract, all Work and all Parts and equipment incorporated in the Work are to be new and of the most suitable grade of their respective kinds for the purpose, notwithstanding the requirements for testing, inspection and performance as required under this Contract. All workmanship shall be as specified under the Contract or, if no workmanship standards are specified, best commercial or "state of the art" complying with relevant (National and International) standards.

- 21.3 All Work may be subject to inspection and test by the Purchaser or his authorised representative(s) to the extent practicable at all times and places prior to Acceptance, including the period of manufacture, or after delivery or as otherwise specified in the Contract. For the purposes of inspection and testing the Purchaser may delegate as his representative the authorised National Quality Assurance Representative (NQAR) in accordance with STANAG 4107.
- 21.4 No representative or NQAR appointed by the Purchaser for the purpose of determining the Contractor's compliance with the technical requirements of the Contract shall have the authority to change any of the specifications. Such changes may only be made by the Contracting Authority in writing in accordance with Clause 16 (Changes).
- 21.5 The presence or absence of an NQAR or other Purchaser representative shall not relieve the Contractor from conforming to the requirements of this Contract.
- 21.6 Acceptance or rejection of the Work shall be made as promptly as practicable after delivery, except as otherwise provided in the Contract. Failure to timely accept or reject the Work shall neither relieve the Contractor from responsibility for such Work nor impose liability on the Purchaser.
- 21.7 In the event that any Work, or lots thereof, or services are defective in design, material, workmanship or manufacturing quality, or as a result of undue wear and tear or otherwise not in conformity with the requirements of this Contract, including any characteristic or condition which is or becomes at variance to the performance specifications, to the intended function of the Work or the function to which it could reasonably be expected that the Work would perform, the Purchaser shall have the right either to reject them (with or without instructions as to their disposition) or to require their correction or replacement. Work which has been rejected or required to be corrected or replaced shall, at the expense of the Contractor, be removed, or, if permitted or required by the Contracting Authority, corrected in place by the Contractor promptly after notice, and shall not thereafter be tendered for acceptance by the Contractor unless the former rejection or requirement of correction or replacement is withdrawn. If the Contractor fails promptly to remove, replace or correct such Work the Purchaser may either:
- 21.7.1 by contract or otherwise return, replace or correct such Work or services and charge to the Contractor the cost incurred by the Purchaser; and/or
 - 21.7.2 terminate this Contract for default as provided in Clause 39 (Termination for Default).
- 21.8 When NQAR is not applicable based on the scale of the project, the Purchaser reserves the right to perform inspections through his own staff in accordance with the latest ISO standard at the time of inspection.
- 21.9 Unless the Contractor corrects or replaces such Work within the delivery

schedule, the Purchaser may require the delivery of such Work at a reduction in price which is equitable under the circumstances. Failure to agree to such reduction of price shall be a dispute within the meaning of Clause 41 (Disputes).

- 21.10 If any inspection or test is made by the Purchaser's representatives on the premises of the Contractor or Sub-contractor, the Contractor, without additional charge, shall provide all reasonable facilities and assistance for the safety and convenience of the Purchaser's representatives in the performance of their duties. The NQAR or other Purchaser representatives shall have the right of access to any area of the Contractor's or his Sub-contractor's premises where any part of the contractual work is being performed.
- 21.11 If Purchaser inspection or test is made at a point other than the premises of the Contractor or Sub-contractor, it shall be at the expense of the Purchaser except as otherwise provided in this Contract; provided, that in case of rejection the Purchaser shall not be liable for any reduction in value of samples used in connection with such inspection or test.
- 21.12 All inspections and tests by the Purchaser shall be performed in such a manner as not to unduly delay the Work.
- 21.13 The Purchaser reserves the right to charge to the Contractor any additional cost of Purchaser inspection and test when Work is not ready at the time such inspection and test is requested by the Contractor or when re-inspection or retest is necessitated by prior rejection.
- 21.14 Acceptance or rejection of the Work shall be made as promptly as practicable after delivery, except as otherwise provided in this Contract, but failure to inspect and accept or reject Work shall neither relieve the Contractor from responsibility for such Work as are not in accordance with the Contract requirements nor impose liability on the Purchaser thereof.
- 21.15 The inspection and test by the Purchaser of any Work or lots thereof, or services, does not relieve the Contractor from any responsibility regarding defects or other failures to meet the Contract requirements which may be discovered prior to acceptance.
- 21.16 Acceptance of Work shall take place when the Contracting Authority confirms acceptance in writing of the Work in accordance with the procedure specified in the Contract, or if none is so specified then the Contracting Authority shall be deemed to have accepted the Work without prejudice to any other remedies, when and as soon as any of the following events have occurred:
 - 21.16.1 the Purchaser has taken the Work into use, except as specifically provided by Clause 23 (Use and Possession Prior to Acceptance);
 - 21.16.2 the Purchaser has not exercised its right of rejection of the Work within any period specified for that purpose in the Contract;
 - 21.16.3 there being no period for exercising the right of rejection specified in

the Contract, a reasonable time, all the circumstances having been taken into account, has elapsed since inspection of the Work was effected in accordance with the Contract.

- 21.17 Except as otherwise provided in this Contract, acceptance shall be conclusive except as regards latent defects, fraud, or such gross mistakes as amount to fraud.
- 21.18 Unless otherwise specified in this Contract, the Contractor shall have or establish, implement and maintain an effective and economical quality control system necessary to satisfy the Contract requirement. The system shall provide for the early and prompt detection of deficiencies, trends and conditions which could result in unsatisfactory quality and for timely and effective corrective action. Objective evidence that the system is effective shall be readily available to the Purchaser and its authorised representatives. Records of all inspection and testing work by the Contractor shall be kept complete and available to the Purchaser's representatives during the performance of this Contract and for such longer periods as may be specified elsewhere in this Contract.

22. **INSPECTION AND ACCEPTANCE OF DOCUMENTATION**

- 22.1 The Contractor shall provide to the Purchaser a draft version of the required documentation as provided by the Contract Schedule and the Statement of Work. Review of draft documentation under this Contract will be made by the Purchaser upon the delivery of these items by the Contractor. The review will be conducted by the Purchaser through duly authorised representatives.
- 22.2 Upon delivery of the draft documentation, the Purchaser will have a period of review as provided by the Statement of Work. At the end of the review period or before if deemed practical by the Purchaser, the Purchaser's comments will be presented to the Contractor in writing. The substance of such comments will pertain to items of error, non-conformity, omission and guidance in relation to the requirements of the Statement of Work.
- 22.3 Purchaser Review of the delivered items will emphasise the conformity with the requirements of the Statement of Work, thoroughness of analysis, logical bases of conclusions and models and coherence and completeness of presentation. The review process will also examine editorial and grammatical correctness and the suitability and accuracy of graphics supporting the text.
- 22.4 The Contractor shall, after receipt of Purchaser comments, incorporate changes, revisions and corrections required by the Purchaser and present the revised documentation in final form to the Purchaser for inspection in accordance with the delivery date specified in the Schedule.

- 22.5 During the review process the Contractor is not required to halt efforts on further tasks as identified in the Statement of Work. The Purchaser, however, shall not be held liable for any work carried out by the Contractor which is based on draft documentation yet to be reviewed.
- 22.6 Upon receipt of the items in final form, the Purchaser will inspect the items for a period not exceeding two weeks (or as otherwise stated in the Statement of Work). At the end of the inspection, the Purchaser will notify the Contractor that:
- 22.6.1 the items have been accepted;
 - 22.6.2 the acceptance of the items is deferred pending further revision;
- or
- 22.6.3 The items are rejected and significantly fail to meet Contract requirements.
- 22.7 In the case of Clause 22.6.2 above, the Contractor shall only be responsible for those revisions and corrections requested by the Purchaser and the Purchaser may not request additional revisions during inspection after required revisions have been made. However, if the Purchaser determines that a directed revision has not been made or if such directed revision was cause for revision of other portions of content which were not made by the Contractor, the Purchaser may withhold acceptance until such revisions are made by the Contractor.
- 22.8 The Contractor shall provide to the Purchaser on request supporting technical data, computer software, databases and background analyses in order to validate findings contained in the delivered items.
- 22.9 Purchaser acceptance shall be made in writing by the Contracting Authority.

23. USE AND POSSESSION PRIOR TO ACCEPTANCE

- 23.1 Except as otherwise provided in the Contract Special Provisions, the Purchaser shall have the right to take possession of, or use, any completed or partially completed Work under the Contract at any time, when notified by the Contracting Authority, however such possession or use shall not constitute Acceptance by the Purchaser, as defined in the Contract.
- 23.2 While the Purchaser has such use or is in such possession, the Contractor shall be relieved of the responsibility for loss or damage to the Work concerned other than that resulting from the Contractor's fault, negligence or defect to the Work.

23.3 If such prior possession or use by the Purchaser delays the progress of the Work or causes additional expense to the Contractor, an equitable adjustment in the Contract price or the time of delivery will be made, in accordance with the Clause 16 (Changes), and the Contract shall be modified in writing accordingly.

24. **OWNERSHIP AND TITLE**

24.1 Except as may be otherwise stated in the Contract Special Provisions and Clause 23 (Use and Possession prior to Acceptance), ownership and title to all Work will pass to the Purchaser only upon Acceptance by the Contracting Authority in writing. Where the Contract provides for Provisional Acceptance and Final Acceptance, ownership and title will pass to the Purchaser upon written notification of Final Acceptance.

25. **INVOICES AND PAYMENT**

25.1 Unless otherwise specified in the Contract Special Provisions, invoices shall only be submitted after delivery and Acceptance of the Work and for the total prices and currency(ies) as set out under the Schedule of Work.

25.2 Invoices in respect of any Work or services shall be prepared and submitted to the Purchaser and shall contain all of the elements listed below:

25.2.1 Contract number;

25.2.2 Purchaser's Purchase Order number;

25.2.3 accounting codes (as specified in this Contract);

25.2.4 item number (as defined in the Contract);

25.2.5 Contract description of Work or services, sizes, quantities, unit prices, and extended totals (exclusive of taxes and duties for which relief is available); and

25.2.6 extended totals. Details of Bills of Lading or Freight Warrant numbers and weight of shipment shall be identified on each invoice as appropriate.

25.3 In addition, documentary evidence of Acceptance including copies of certificates of conformity shall be submitted together with each invoice. Invoices shall not be submitted to the Purchaser without Acceptance having been previously made by the Purchaser.

25.4 Each copy of the invoice shall contain the following certificate which shall be signed by a duly authorised company official on the designated original invoice:

"I certify that the above invoice is true and correct, that the delivery of the above described items has been duly carried out and the payment thereof has not been received.

*Order placed for official use. Exemption from VAT Article 42, §3&3*of VAT Code for Belgium or Article 151, §1b of the Council Directive 2006/112/EC dd. 28 November 2006 on intra-community purchases and/or services."*

- 25.5 All invoices shall be addressed to the NCI Agency - Financial Management

Either at the following addresses:

NCI Agency * If used for NCI Agency Brussels

NATO Communications and Information Agency
Finance, Accounting & Operations
Batiment Z
Av du Bourget 140
B-1140 Belgium

OR

shall be addressed to Financial Management at the following electronic address: accountspayable@ncia.nato.int

Note: When used for NCI Agency The Hague or Mons the addresses shall be dictated in the Contract Special Provisions

Once the manner of forwarding the invoice is chosen, the contractor shall keep this manner throughout the contract.

- 25.6 All invoices submitted shall include the address of the bank to which payment shall be made, together with **either** pertinent information concerning the International Bank Account Number (IBAN) and BIC/SWIFT address **or** pertinent information concerning transit number/sort code, account number and SWIFT address. The Purchaser makes payment only by wire transfer and therefore wire transfer particulars shall be included on the invoice.
- 25.7 Invoices will be settled by the Purchaser within sixty (60) days of receipt of a properly prepared and submitted invoice.
- 25.8 The Contractor shall mention on the invoice the payment conditions in line with the Contract.

26. **TAXES AND DUTIES**

- 26.1 The Purchaser, by virtue of his status under the terms of Article IX and X of the Ottawa Agreement, is exempt from all direct taxes (incl. VAT) and all customs duties on merchandise imported or exported. The Contractor, therefore, certifies that the prices stipulated in this Contract do not include amounts to cover such direct taxes or customs duties.
- 26.2 The Contractor shall be responsible for ensuring that his respective Sub-contractors are aware that the Purchaser is exempt from taxes and customs duties. The Contractor (and his respective Sub-contractors) shall be responsible for complying with all applicable national and local legal and administrative procedures to ensure that authorities do not attempt to assess taxes and customs duties on goods and property imported or exported through NATO member nation frontiers under this Contract nor assess direct taxation (VAT) on goods sold to the NCI Agency under this Contract.
- 26.3 The Purchaser shall give reasonable assistance in providing evidence/documents which might be required by the Contractor to ensure that NCI Agency receives tax exemption by virtue of its status under the Ottawa Agreement.
- 26.4 If, after complying with all national and local legal and administrative procedures, the authorities persist in attempting to impose taxes or duties on goods provided under this Contract, the Contractor shall inform the Contracting Authority providing the particulars of the situation, the procedures which have been followed and the point of contact at the national authority which is attempting to impose taxation or duty. The Contracting Authority will examine the situation and attempt to clarify the legal and administrative basis of the difficulty. If the Contracting Authority so directs, the Contractor shall pay the required taxes and duties and file for reimbursement or rebate from the national authorities in accordance with national legislative and administrative procedures.
- 26.5 In the event that the petition for reimbursement or rebate is denied by the national authorities concerned and providing that the Contractor and/or his Sub-contractor have complied with the national legislative and administrative procedures, the Purchaser shall reimburse the full amount of the payment(s) upon receipt of the Contractor's invoice indicating such tax or duty as a separate item of cost and fully identified by reference to any governmental law, regulation and/or instruction pursuant to which such tax or duty is enforced. The Contractor shall offer assistance and execute any such document that may be useful or required to ensure that Purchaser obtains the reimbursement of any tax or duty retained by a national authority.
- 26.6 In the event of the Contractor and/or Sub-contractor not complying with national legislative or administrative procedures, taxes and duties paid by the Contractor and/or Sub-contractors shall not be reimbursed by the

Purchaser.

- 26.7 Following payment by the Purchaser of the taxes and/or duties pursuant to Clause 26.4 above, should the Contractor subsequently receive a rebate of any amount paid by the Purchaser, the Contractor shall immediately notify the Purchaser and the amount of such rebate shall be credited or reimbursed to the Purchaser, as directed. The Contractor shall be responsible for taking any and all action that could reasonably be required in order to obtain such rebate.
- 26.8 The Contractor shall be liable for all other taxes, assessments, fees, licences, administrative charges or other Government assessments or charges which are applicable to the performance of this Contract. It is the Contractor's responsibility to inform himself of his liability in each country where such liability may arise.

27. WARRANTY OF WORK (Exclusive of Software)

27.1 For the purpose of this Clause:

27.1.1 "Acceptance" shall mean the act of an authorised representative of the Purchaser by which the Purchaser assumes title and ownership of delivered Work rendered as partial or complete performance of the Contract. "Acceptance" in this regard, unless specifically provided otherwise in the Contract Special Provisions, means final Acceptance where the Contract provides for Provisional or Partial Acceptance;

27.1.2 "Correction" shall mean the elimination of a defect;

27.1.3 "Work" shall not include software.

27.2 The Contractor shall not be responsible under this Clause for the Correction of Defects in Purchaser Furnished Property, except for Defects in Contractor performed installation, unless the Contractor performs, or is obligated to perform, any modifications or other work on Purchaser Furnished Property. In that event, the Contractor shall be responsible for Correction of Defects that result from the modifications or other Work.

27.3 Unless another period of time is indicated in the Contract Special Provisions, the duration of the warranty provided by the Contractor and its Subcontractors shall be twelve (12) months from the date of Acceptance under this Contract as notified in writing by the Contracting Authority.

27.4 Any Work or parts thereof corrected or furnished in replacement and any services re-performed shall also be subject to the conditions of this Clause 27 to the same extent as Work initially accepted. The warranty, with respect to these Work, or parts thereof shall be equal in duration to that set forth in Clause 27.3, and shall run from the date of delivery of the corrected or

replaced Work.

- 27.5 If the Contractor becomes aware at any time before Acceptance by the Purchaser (whether before or after tender to the Purchaser) or at a later time, that a Defect exists in any Work, the Contractor shall either promptly correct the Defect or promptly notify the Purchaser, in writing, of the Defect, using the same procedures prescribed in Clause 27.8.
- 27.6 The Purchaser will notify in writing the Contractor of the existence of a Failed Component and return to the Contractor the Failed Component within thirty (30) Days of the discovery of such failure. The transport of the Failed Component shall be at the expense of the Purchaser. The notification of the failure will include as much information as practicable about the circumstances and operating environment at the time of the failure. Upon receipt of such notification by the Purchaser (which may precede receipt of the Failed Component), the Contractor shall ship to the location of the Failed Component an identical component for installation by Purchaser personnel. The Contractor shall ship such replacement component(s) Delivery Duty Paid. Such transportation and replenishment charges are included in the cost of line item of the Contract identified as the warranty.
- 27.7 In such rare cases where the Failed Component is either too large to be easily transported or the Failed Component cannot be readily identified and isolated within the larger entity, the Contractor shall be notified by the Purchaser of the failure immediately by telephone, fax or e-mail. The Contractor shall provide technical support to the Purchaser personnel in identifying the Failed Component so as to afford the Purchaser the opportunity to return the Failed Component. In such a case where the Failed Component cannot be identified or is not cost effective or practical to ship to the Contractor's facility, the Contractor may elect to send field service personnel to the site of the failure and repair such equipment on location. In this event, such field service personnel shall be dispatched to the site of the failure within forty-eight (48) hours of initial notification. The expense of the technical support and field service shall be borne by the Contractor.
- 27.8 The Contractor shall conduct analysis of all Failed Components which are returned to him by the Purchaser or repaired in the field by Contractor field service personnel to determine the cause of the failure. The Contractor shall issue a report to the Purchaser within thirty (30) days of receipt of a returned item or field repair which contains the results of the analysis. The report shall contain the conclusion of the Contractor as to whether the cause of the failure was due to a Manufacturing Defect or a Design Defect and declare what course of remedial action the Contractor shall implement to prevent further failures of a similar nature. Repetitive failures of the same component may be grounds for a de facto determination by the Purchaser that a Design Defect exists.
- 27.9 If the Purchaser determines that a Design Defect exists in any of the Work accepted by the Purchaser under this Contract, the Purchaser shall promptly

- notify the Contractor of the Defect, in writing, within ninety (90) days after discovery of the Defect. Upon timely notification of the existence of a Defect, or if the Contractor independently discovers a Design Defect or Manufacturing Defect in accepted Work, the Contractor shall submit to the Purchaser, in writing within thirty (30) days, a recommendation for corrective actions, together with supporting information in sufficient detail for the Purchaser to determine what corrective action, if any, shall be undertaken.
- 27.10 The Contractor shall also prepare and furnish to the Purchaser data and reports applicable to any Correction required under this Clause (including revision and updating of all other affected data and already accepted documentation called for under this Contract) at no increase in the Contract price.
- 27.11 In the event of timely notice of a decision not to correct or only to partially correct, the Contractor shall submit a technical and cost proposal within forty-five (45) days to amend the Contract to permit Acceptance of the affected Work in accordance with the revised requirement, and an equitable reduction in the Contract price shall promptly be negotiated by the Parties and be reflected in a supplemental agreement to this Contract.
- 27.12 Within thirty (30) days after receipt of the Contractor's recommendations for corrective action and adequate supporting information in accordance with Clause 27.9, the Purchaser using sole discretion, shall give the Contractor written notice not to correct any Defect, or to correct or partially correct any Defect within a reasonable time.
- 27.13 The Contractor shall promptly comply with any timely written direction from the Purchaser to correct or partially correct a manufacturing or Design Defect, at no increase in the Contract price.
- 27.14 The Purchaser shall give the Contractor a written notice specifying any failure or refusal of the Contractor to:
- 27.14.1 conduct analyses of Failed components and implement a course of remedial action as required by Clauses 27.7 and 27.8;
 - 27.14.2 provide replacement components, technical support or on-location field repair service in accordance with Clauses 27.6 and 27.7; or
 - 27.14.3 prepare and furnish data and reports as required by Clause 27.10.
- 27.15 The notice referred to in Clause 27.14 shall specify a period of time following receipt of the notice by the Contractor in which the Contractor must remedy the failure or refusal specified in the notice.
- 27.16 If the Contractor does not comply with the Purchaser's written notice in Clause 27.14, the Purchaser may by Contract or otherwise:
- 27.16.1 Obtain detailed recommendations for corrective action from its own resources or third parties and either:

- 27.16.2 correct the Work;
- 27.16.3 replace the Work, and if the Contractor fails to furnish timely disposition instructions, the Purchaser may dispose of the non-confirming Work for the Purchaser's account in a reasonable manner, in which case the Purchaser is entitled to reimbursement from the Contractor, or from the proceeds, for the reasonable expenses of care and disposition, as well as for excess costs incurred or to be incurred;
- 27.16.3.1 obtain applicable data and reports; and/or
- 27.16.3.2 charge the Contractor for the costs incurred by the Purchaser.
- 27.17 In no event shall the Purchaser be responsible for any extension or delays in the scheduled deliveries or periods of performance under this Contract as a result of the Contractor's obligations to correct Defects, nor shall there be any adjustment of the delivery schedule or period of performance as a result of the Correction of Defects unless provided by a supplemental agreement with adequate consideration.
- 27.18 The rights and remedies of the Purchaser provided in this Clause shall not be affected in any way by any terms or conditions of this Contract concerning the conclusiveness of inspection and Acceptance and are in addition to, and do not limit, any rights afforded to the Purchaser by any other Clause of this Contract or applicable law.
28. **RIGHT OF ACCESS, EXAMINATION OF RECORDS**
- 28.1 The Contractor shall give to the Purchaser and/or his representative(s) full and free access to his premises as and when required for the purpose of this Contract and shall ensure the same right of access to the premises of his Sub-contractors, by the inclusion in any such Sub-contracts of a provision substantially as set forth in this Clause.
- 28.2 The Purchaser and/or his representative(s) shall continue to have such right of access and examination of records as set forth in Clause 28.1 above until final payment under the Contract or the end of the warranty provisions under the Contract, whichever occurs later.
- 28.3 The expiration of the Purchaser's rights as set forth in Clause 28.2 is further subject to the provisions of Clause 19 (Pricing of Changes, Amendments and Claims), where a three (3) year right is established following the agreement of contractual amendments or the settlement of claims based

upon the submission of cost and pricing data.

- 28.4 The period of access and examination described in Clause 28.1 above for records not related to cost aspects of a dispute or claim but which relate to issues of fact arising under either proceedings under Clause 41 (Disputes) or Clause 42 (Arbitration), or the settlement of claims made by either Party pursuant to the performance of this Contract, shall continue until such appeals, litigation or claims have been disposed of.

29. PATENT AND COPYRIGHT INDEMNITY

- 29.1 The Contractor shall assume all liability against any and all third party claims that the services, Work and/or parts thereof, in whole or in part, infringe(s) an IPR in force in any countries, arising out of the manufacture, import, export, performance of the services or delivery of Work and/or out of the use or disposal by, or for the account of, the Purchaser of such Services and/or Work. The Contractor shall reimburse and/or indemnify the Purchaser, its officers, agents, employees and/or consultants: (i) for all costs, fees, damages, awards, settlement amounts and any other expenses awarded to the third party right holder against Purchaser and/or the final beneficiaries of the Work in relation to said third party claim; and (ii) for the costs and expenses incurred by the Purchaser in relation to said third party claims, including attorney fees. The Contractor shall be responsible for obtaining any licences necessary for the performance of this Contract and for making all other arrangements required to indemnify the Purchaser from any liability for IPR infringement in said countries.
- 29.2 Each Party shall immediately notify the other of any intellectual property infringement claims of which he has knowledge and which pertain to the Work under this Contract.
- 29.3 This indemnity shall not apply under the following circumstances:
- 29.3.1 Patents or copyright which may be withheld from issue by order of the applicable government whether due to security regulations or otherwise;
 - 29.3.2 An infringement resulting from specific written instructions from the Purchaser under this Contract;
 - 29.3.3 An infringement resulting from changes made to the Work by the Purchaser without the Contractor prior written consent;
 - 29.3.4 An infringement resulting from changes or additions to the Work subsequent to final delivery and Acceptance under this Contract.

30. INTELLECTUAL PROPERTY

30.1 Purchaser Background IPR

- 30.1.1 The Contractor is licensed to use, non-exclusively and royalty-free any Purchaser Background IPR that is or will be made available for the sole purpose of carrying out the Work.
- 30.1.2 The Contractor shall not use any Purchaser Background IPR other than for the purpose of carrying out the Work without the prior written agreement of the Purchaser. Any such agreement shall include the terms relating to such use.
- 30.1.3 The Purchaser gives no warranty as to the validity of any Purchaser Background IPR. The Contractor shall not do anything or act in any way which is inconsistent with or prejudicial to the ownership by the Purchaser of any Purchaser Background IPR.

30.2 Contractor Background IPR

- 30.2.1 Any use of Contractor Background IPR for the purpose of carrying out the Work pursuant to the Contract shall be free of any charge to Purchaser. The Contractor hereby grants to NATO a non-exclusive, royalty-free and irrevocable licence to use and authorise others to use any Contractor Background IPR for the purpose of exploiting or otherwise using the Foreground IPR.
- 30.2.2 Any use of Contractor Background IPR is not limited to the number of users or the number of licenses required by the Contract for the use of system. The Purchaser reserves the right to use the Contractor Background IPR for any number of users and number of licenses as required, at no additional cost to the Purchaser.

30.3 Foreground IPR

- 30.3.1 All Foreground IPR is the property of the Purchaser on behalf of NATO. Consequently, no statement shall be made restricting the rights of the Purchaser in the Foreground IPR.
- 30.3.2 The Contractor shall ensure that suitable arrangements are in place between its employees, agents, consultants and itself regarding Foreground IPR generated by said employees, agents, Subcontractors and consultants to allow the Contractor to fulfil its obligations under Clause 30.3.1 above.
- 30.3.3 The Contractor shall be entitled to use Foreground IPR on a

non-exclusive, royalty free basis solely for the purpose of carrying out the Work.

- 30.3.4 The Contractor shall not use any Foreground IPR other than for the purpose of carrying out the Work without the Purchaser's prior written agreement. Any such agreement shall include terms relating to such use.
- 30.3.5 The Contractor shall provide the Purchaser, at the latest upon delivery of the Work and thereafter for the duration of the warranty and any purchased CLS agreement period, with full documented records of information in relation to the Work, including but not limited to, all drawings, specifications and other data that is necessary or useful to further develop, maintain and operate the Work.
- 30.3.6 The Contractor shall:
- 30.3.6.1 do all things necessary and sign all necessary or useful documents to enable the Purchaser to obtain the registration of the Foreground IPR as the Purchaser may require and select; and
 - 30.3.6.2 to execute any formal assignment or other documents as may be necessary or useful to vest title to any Foreground IPR in the Purchaser.
- 30.3.7 The Contractor undertakes:
- 30.3.7.1 to notify the Purchaser promptly of any invention or improvement to an invention or any design conceived or made by the Contractor; and
 - 30.3.7.2 to provide the Purchaser with such information as the Purchaser may reasonably request in order to: (i) determine the patentability of such invention or improvement; (ii) assess the need for registering such invention or improvement; and (iii) evaluate the potential value to the Purchaser of such a patent or registration if issued.
- 30.3.8 If the Purchaser determines that it wishes to apply for one or more patents for the disclosed invention or improvement or for a registration for the disclosed design, it will prosecute such application(s) at its own expense. The Contractor undertakes to provide the Purchaser, at the Purchaser's expense, with such

information and assistance as the Purchaser shall reasonably require to prosecute such application(s).

30.4 Third Party IPR

- 30.4.1 Any use of Third Party IPR for the purpose of carrying out the Work pursuant to the Contract shall be free of any charge to the Purchaser. The Contractor hereby grants to NATO a non-exclusive, royalty-free and irrevocable licence to use and authorise others to use any Third Party IPR for the purpose of exploiting or otherwise using the Foreground IPR.
- 30.4.2 With the exception of COTS items, any use of Third Party IPR is not limited to the number of users or the number of licenses required by the Contract for the use of system. With the exception of COTS items, the Purchaser reserves the right to use the Third Party IPR for any number of users and number of licenses as required, at no additional cost to the Purchaser.
- 30.4.3 For COTS items, the Contractor shall be responsible for obtaining licences from the Third Party in line with the requirements of the Statement of Work (including numbers and locations of licences).
- 30.4.4 Where Third Party IPR is the subject of a licence or other agreement between the third party and the Purchaser or the Contractor, the Contractor shall not use any Third Party IPR for the purposes of carrying out work pursuant to the Contract without the prior written approval of the Purchaser. Contractor shall inform Purchaser in advance of any restrictions on the Purchaser's use.
- 30.4.5 If, after the award of the Contract, the Contractor becomes aware of the existence of any Third Party IPR which the Contractor is using or believes is needed for the performance of the Contract, the Contractor shall immediately give the Purchaser a written report identifying such IPR and if they are compliant with the other provisions in the contract. Any Third Party IPR under this clause is subject to the prior written approval by the Purchaser.
- 30.4.6 The Purchaser may consider open source solutions alongside proprietary ones in developments provided that such solutions are fully compliant with the requirements of this Contract. Contractor shall disclose in advance the open source license associated with the contemplated open source solution. The

Purchaser reserves the right to refuse the incorporation of open source solutions that are deemed inadequate for incorporation in a NATO application (e.g. post-back obligations).

30.5 Subcontractor IPR

- 30.5.1 When placing a Sub-contract which is concerned with or involves the creation of IPR, the Contractor shall ensure that the Sub-contractor enters into the same agreement for the use of the IPR as stipulated in this Contract in such a way that the Purchaser will be entitled to use the IPR as agreed between the Purchaser and the Contractor. The Contractor shall include in the Sub-contract the content of the provisions of this Clause.

31. SOFTWARE WARRANTY

31.1 Statement of the Warranties

- 31.1.1 The Contractor warrants that each Software delivered under this Contract will conform to all requirements specified in the Contract. This will also include Software design specifications, including software configuration.
- 31.1.2 Regardless of the Purchaser initiation of or participation in developing Software design or specifications, each Software delivered under this Contract will conform to the essential Performance requirements set forth in this Contract, as those essential Performance requirements measured, tested, and verified by tests and procedures set forth in this Contract.

31.2 Notification Requirement

- 31.2.1 The Contractor agrees to notify the Purchaser in writing immediately after he first discovers that a defect(s) may exist in Software delivered under this Contract, unless the Purchaser has first notified the Contractor, in writing, of the same defect(s).
- 31.2.2 The Purchaser shall notify the Contractor upon discovery that a defect(s) may exist in any Software accepted by the Purchaser under this Contract, unless the Contractor has first notified the Purchaser, in writing of the same defect(s).

31.3 Duration of the Warranty

- 31.3.1 For each Software delivered under this Contract, the Contractor Warranties stated in paragraph 31.1 above shall extend to all

defects discovered within 12 months from the date of acceptance of the Software by the Purchaser.

31.4 Purchaser Remedies for Breach

- 31.4.1 The rights and remedies of the Purchaser under this Software Warranty:
- 31.4.2 Are in addition to any rights and remedies of the Purchaser under any other provision of this Contract, including, but not limited to, the Purchaser's rights in relation to latent defects, fraud, or gross mistakes that amount to fraud; and
- 31.4.3 Shall apply notwithstanding inspection, acceptance, or any other clauses or terms of this Contract;
- 31.4.4 In the event of any defect as defined herein with respect to a Software delivered under this Contract, the Purchaser, in its sole discretion may:
 - 31.4.4.1 Require the Contractor to take such action as may be necessary to eliminate the defect, at no additional cost to the Purchaser for materials, labour, transportation, or otherwise;
 - 31.4.4.2 Require the Contractor to supply, at no additional cost to the Purchaser, all materials and instructions necessary for the Purchaser to eliminate the defect and to pay costs reasonably incurred by the Purchaser in taking such action as may be necessary to eliminate the defect, or;
 - 31.4.4.3 Equitably reduce the contract price
- 31.4.5 The Purchaser may elect the remedies provided in paragraph 31.4.4.1 or 31.4.4.2 above notwithstanding any dispute respecting the existence of or responsibility for any alleged defect as defined herein with respect to any Software delivered under this contract, provided that the Contractor will not be required to pay costs incurred by the Purchaser under paragraph 31.4.4.2 until final determination of the defect. In the event that the alleged defect is subsequently determined not to be a defect subject to this warranty but the Contractor has incurred costs under paragraph 31.4.4.1 and 31.4.4.2 as required by the Contract by virtue of this paragraph 31.4.3, the contract price under this contract shall be equitably adjusted.

- 31.4.6 Election by the Purchaser of the remedy provided under paragraph 31.4.4.1 and 31.4.4.2 above shall not preclude subsequent election of a different remedy under paragraph 31.4.4 if the defect is not successfully eliminated under the prior election with one month of the notification under paragraph 31.4.2 above.

31.5 Limitations and Exclusions from Warranty Coverage

- 31.5.1 This Software Warranty shall not apply to alleged defects that the Contractor demonstrates to be in or otherwise attributable to the Purchaser furnished property as determined, tested, and verified by the tests and procedures set forth in this Contract. Notwithstanding this paragraph, a defect is not attributable to Purchaser furnished property if it is the result of installation or modification of Purchaser furnished property by the Contractor or of the integration of Purchaser furnished property into any Software delivered under this Contract.
- 31.5.2 Any Purchaser Furnished Property needs to be checked and approved by the Contractor. Approval is implied once the Contractor starts using the Purchaser Furnished Property.

31.6 Markings

- 31.6.1 All Deliverables under this Contract will identify the owner of the Deliverable and if applicable, will prominently include notice of the existence of its warranty, its substance, its duration, and instructions to notify the Purchaser promptly if the Software is found to be defective. The markings should also be included in the operating and/or maintenance manuals or instructions accompanying such Software.
- 31.6.2 All Deliverables regardless of the media they are delivered onto and which are subject to export control restrictions shall be clearly marked indicating the type and nature of restriction as well as the national law imposing such restrictions. Nothing in this provision is intended to invalidate, void, or otherwise limit the rights of the Purchaser under this Contract.

32. NATO CODIFICATION

- 32.1 For the purposes of this Clause "Technical Data" means the drawings, specifications and technical documentation of those items designated by the

Purchaser to support the equipment covered by the Contract, and required to fully identify the items and, if applicable, draft item identifications to the extent and in the form to be agreed between the Codification Authority and the Contractor.

- 32.2 In order to ensure the orderly identification of equipment, the Contractor shall furnish at the request of the Codification Authority the Technical Data required for the identification of the items of supply to the NATO codification system in the time scale stated in this Contract.
- 32.3 A recommended spare parts list or a similar data carrier prepared in accordance with instructions provided by the Purchaser as the basis for codification shall be supplied by the Contractor by the date established in this Contract.
- 32.4 The Contractor shall supply or require his Sub-contractor(s)/supplier(s) to supply on request for the period of time specified in the Contract the relevant Technical Data for all items and sub-contracted items to the Codification Authority and the Purchaser. The Contractor shall require that each Sub-contractor/supplier shall include identical conditions in any subsequent order which he may place.
- 32.5 The drawings, specifications, related documentation and, if applicable, draft item identifications, prepared when possible by the true manufacturer of the item, shall be supplied by the Contractor or his Sub-contractor(s)/supplier(s) direct to the Codification Authority and, if required, to the Purchaser as and when they become available or, at the latest within the time limits specified in the Contract. The Contractor shall inform the Codification Authority and Purchaser within 21 Days of receipt of the request if the required Technical Data are not immediately available, and shall impose a similar obligation upon his Sub-contractor(s)/supplier(s).
- 32.6 Except as hereinafter provided, the Contractor shall require the Sub-contractor(s)/supplier(s) to furnish on request the information direct to the Codification Authority in the Sub-contractor(s)/supplier(s)' country, but the Contractor shall remain responsible for ensuring that the information is so furnished. In the event of a Sub-contract order being placed with a manufacturer in a non-NATO country, the Contractor shall be responsible for obtaining Technical Data from the Sub-contractor/supplier and furnishing it to the Purchaser.
- 32.7 Technical Data relating to any Sub-contractor's/supplier's items shall include but not be limited to the name and address of the true manufacturer(s), his/their true reference number(s), drawing or item Part number(s) and applicable data in addition to any Part or reference number(s) allocated by

the Contractor, plus draft item identification(s) if required by the Codification Authority.

- 32.8 The Contractor shall provide the Technical Data required for codification of those items ordered with this Contract and also for the pertaining support items ordered with future contracts, including updating information regarding all agreed modifications, design or drawing changes made to the equipment or detailed Parts.
- 32.9 If the Contractor has previously supplied Technical Data (for the purpose stated in Clause 31.2), the Contractor is to state this fact and indicate to whom they were supplied and the Contractor shall not under normal circumstances be required to make a further supply of the Technical Data already provided. The Technical Data furnished by the Contractor and Sub-contractor(s)/supplier(s) are to be presented in accordance with the requirements for the preparation of item identification(s) as outlined in the Guide for Industry provided by the Codification Authority.
- 32.10 The Contractor should contact the Codification Authority for any information concerning the NATO codification system. This information is to be found at: ["http://www.nato.int/structur/ac/135/ncs_guide/e_guide.htm"](http://www.nato.int/structur/ac/135/ncs_guide/e_guide.htm)

32.11 Markings

- 32.11.1 All Deliverables under this Contract will identify the owner of the Deliverable and, if applicable, will prominently include notice of the existence of its warranty, its substance, its duration, and instructions to notify the Purchaser promptly if the Software is found to be defective. The markings should also be included in the operating and/or maintenance manuals or instructions accompanying such Software.
- 32.11.2 All Deliverables regardless of the media they are delivered onto and which are subject to export control restrictions shall be clearly marked indicating the type and nature of restriction as well as the national law imposing such restrictions. Nothing in this provision is intended to invalidate, void, or otherwise limit the rights of the Purchaser under this Contract.

33. RELEASE FROM CLAIMS

- 33.1 Prior to final payment under this Contract, the Contractor and each assignee under this Contract shall execute and deliver a release discharging the Purchaser, its officers, agents and employees from all liabilities, obligations

and claims arising out of or under this Contract subject only to the following exceptions:

- 33.1.1 specified claims in stated amounts or in estimated amounts where the amounts are not susceptible to exact statement by the Contractor;
- 33.1.2 claims for reimbursement of costs (other than expenses of the Contractor by reason of his indemnification of the Purchaser against patent liability) including reasonable expenses incidental thereto, incurred by the Contractor under the provisions of this Contract relating to patents.
- 33.1.3 a patent infringement resulting from specific written instructions from the Purchaser under this Contract.
- 33.1.4 a patent infringement resulting from changes or additions to the goods and services subsequent to final delivery and acceptance under this Contract.

34. ASSIGNMENT OF CONTRACT

- 34.1 The Purchaser reserves the right to assign this Contract, in whole or in part, to another NATO body, agency or representative within NATO or NATO Nations. In such a case, the Purchaser shall notify the Contractor accordingly in writing.
- 34.2 NATO shall remain responsible for its obligations under the Contract and for the actions of the body, agency or representative to which this Contract may be assigned.

35. TRANSFER AND SUB-LETTING

- 35.1 The Contractor shall not give, bargain, sell, assign, sub-let or otherwise dispose of the Contract or any part thereof or the benefit or advantage of the Contract or any part thereof without the prior written consent of the Purchaser.

36. PURCHASER DELAY OF WORK

- 36.1 If the performance of all or any part of the Work is delayed or interrupted by an act of the Purchaser in the administration of this Contract, which act is not expressly or implicitly authorised by this Contract, or by the Purchaser's failure to act within the time specified in this Contract (or within a reasonable time if no time is specified), an adjustment shall be made for any increase in the cost of performance of this Contract caused by such delay or interruption and the Contract modified in writing accordingly.

- 36.2 Adjustment shall be made also in the delivery or performance dates and any other contractual provision affected by such delay or interruption. However, no adjustment shall be made under this Clause for any delay or interruption:
- 36.2.1 to the extent that performance would have been delayed or interrupted by any other cause, including the fault or negligence of the Contractor; or
 - 36.2.2 for which an adjustment is provided or excluded under any other provision of this Contract.
- 36.3 No claim under this Clause shall be allowed:
- 36.3.1 if the Contractor has failed to notify the Purchaser in writing of the act or failure to act, indicating that this act or failure to act will result in a delay or increased costs;
 - 36.3.2 for any costs incurred more than twenty (20) Days before the Contractor shall have notified the Purchaser in writing of the act or failure to act involved; and
 - 36.3.3 unless the monetary claim, in an amount stated, is asserted in writing as soon as practicable after the termination of such delay or interruption, but not later than the date of final payment under the Contract.

37. CONTRACTOR NOTICE OF DELAY

- 37.1 In the event that the Contractor encounters difficulty in complying with the Contract schedule date(s) for whatever reason, including actual or potential labour disputes, the Contractor shall immediately notify the Contracting Authority in writing, giving pertinent details. This data shall be deemed to be informational in character and shall not be construed as a waiver by the Purchaser of any schedule or date, or of any rights or remedies provided by law or under this Contract.
- 37.2 Notwithstanding the above the Contractor shall be deemed to be in delay without notice from the Purchaser and only by simple expiry of the due date.

38. LIQUIDATED DAMAGES

- 38.1 If the Contractor:
- 38.1.1 fails to meet the delivery schedule of the Work or any performance milestones specified in the Schedule of Work to this Contract, or any extension thereof, or
 - 38.1.2 fails to obtain acceptance of the delivered Work as specified in

the Contract, or, if no time for acceptance is specified in the contract within a reasonable time after work is delivered.

the actual damage to the Purchaser for the delay will be difficult or impossible to determine. Therefore, in lieu of actual damages the Contractor shall pay to the Purchaser, for each day of delinquency in achieving the deadline or milestone, fixed and agreed liquidated damages of .1% (one tenth of per cent) per day of the associated payment set forth in the Schedule of Payments provided in the Contract Special Provisions. If no Schedule of Payments is specifically set forth in the Contract Special Provisions, the liquidated damages will be assessed against the price of the applicable contract line item (CLIN) of the Schedule of Supplies, Services and Prices.

- 38.2 In addition to the liquidated damages referred to above, the Purchaser shall have the possibility of terminating this Contract in whole or in part, as provided in Clause 39 (Termination for Default). In the event of such termination, the Contractor shall be liable to pay the excess costs provided in Clause 38.5.
- 38.3 The Contractor shall not be charged with liquidated damages when the delay arises out of causes beyond the control and without the fault or negligence of the Contractor as defined in Clause 39.6 (Termination for Default). In such event, subject to the provisions of Clause 41 (Disputes), the Purchaser shall ascertain the facts and extent of the delay and shall extend the time for performance of the Contract when in his judgement the findings of the fact justify an extension.
- 38.4 Liquidated damages shall be payable to the Purchaser from the first day of delinquency and shall accrue at the rate specified in Clause 38.1 to 20% of the value of each line item individually not to exceed 15% of the value of the total Contract. These liquidated damages shall accrue automatically and without any further notice being required.
- 38.5 The rights and remedies of the Purchaser under this clause are in addition to any other rights and remedies provided by law or under this Contract.

39. TERMINATION FOR DEFAULT

- 39.1 The Purchaser may, subject to Clause 39.6 below, by written notice of default to the Contractor, terminate the whole or any part of this Contract if the Contractor, inclusive but not limited to:
 - 39.1.1 fails to make delivery of all or part of the Work within the time specified in the contract or any agreed extension thereof;
 - 39.1.2 fails to make progress as to endanger performance of this Contract in accordance with its terms;

- 39.1.3 fails to meet the technical requirements or the Specifications of the Contract;
 - 39.1.4 fails to comply with Clause 11 (Security);
 - 39.1.5 transfer this Contract without the Purchaser's prior written consent; or,
 - 39.1.6 breaches any provision of this Contract.
- 39.2 In the case of any of the circumstances set forth in Clause 39.1 above, the Purchaser shall issue a letter to the Contractor stating that an actual or potential default exists and requiring a response from the Contractor within ten (10) Days that identifies:
- 39.2.1 in the case of late delivery of Work, when the Contractor shall deliver the Work and what circumstances exist which may be considered excusable delays under Clause 39.6.
 - 39.2.2 in the case of the other circumstances identified in Clause 39.1 above, what steps the Contractor is taking to cure such failure(s) within a period of ten Days (or such longer period as the Purchaser may authorise in writing) after receipt of notice in writing from the Purchaser specifying such failure and identifying any circumstances which exist which may be considered excusable under Clause 39.6.
- 39.3 The Purchaser shall evaluate the response provided by the Contractor or, in the absence of a reply within the time period mentioned in Clause 39.2, all relevant elements of the case, and make a written determination within a reasonable period of time that:
- 39.3.1 sufficient grounds exist to terminate the Contract in whole or in part in accordance with this Clause and that the Contract is so terminated;
 - 39.3.2 there are mitigating circumstances and the Contract should be amended accordingly; or
 - 39.3.3 the Purchaser will enter a period of forbearance in which the Contractor must show progress, make deliveries, or comply with the Contract provisions as specified by the Purchaser. The Purchaser may apply other remedial actions as provided by this Contract during such period of

forbearance. This period of forbearance shall in no event constitute a waiver of Purchaser's rights to terminate the Contract for default.

- 39.4 At the end of the period of forbearance, which may be extended at the Purchaser's discretion, the Purchaser may terminate this Contract in whole or in part as provided in Clause 39.1 if the Contractor has not made adequate progress, deliveries or compliance with the Contract provisions which were the terms of the period of forbearance.
- 39.5 In the event the Purchaser terminates this Contract in whole or in part, as provided in Clause 39.1, the Purchaser may procure, upon such terms and in such manner as the Purchaser may deem appropriate, Work similar to those so terminated, and the Contractor shall be liable to the Purchaser for any excess costs for such similar Work; however, the Contractor shall continue the performance of this Contract to the extent not terminated under the provisions of this clause.
- 39.6 Except with respect to the default of Sub-contractors, the Contractor shall not be held liable for a termination of the Contract for default if the failure to perform the Contract arises out of causes beyond the control and without the fault or negligence of the Contractor.
- 39.6.1 Such causes may include, but are not restricted to, acts of God, acts of the public enemy, acts of the Purchaser in its contractual capacity, acts of sovereign governments which the Contractor could not reasonably have anticipated, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather; but in every case the failure to perform must be beyond the control and without the fault or negligence of the Contractor.
- 39.6.2 If the failure to perform is caused by the default of a Sub-contractor, and if such default arises out of causes beyond the control of both the Contractor and Sub-contractor, without the fault or negligence of either of them, the Contractor shall not be held liable for a termination for default for failure to perform unless the Work to be furnished by the Sub-contractor were obtainable from other sources in sufficient time to permit the Contractor to meet the required delivery schedule.
- 39.7 If this Contract is terminated as provided in Clause 39.1, the Purchaser, in addition to any other rights provided in this Clause and the Contract, may require the Contractor to transfer title and deliver to the Purchaser, in the manner and to the extent directed by the Purchaser:
- 39.7.1 any completed Work with associated rights ;

- 39.7.2 such partially completed Work, materials, Parts, tools, dies, jigs, fixtures, plans, drawings, information, and Contract rights (hereinafter called "Manufacturing materials") with associated rights as the Contractor has specifically produced or specifically acquired for the performance of such part of this Contract as has been terminated;
- 39.8 In addition to Clause 39.7, the Contractor shall, upon direction of the Purchaser, protect and preserve property in the possession of the Contractor in which the Purchaser has an interest.
- 39.9 Payment for completed Work delivered to and accepted by the Purchaser shall be at the Contract price.
- 39.10 Payment for manufacturing materials delivered to and accepted by the Purchaser and for the protection and preservation of property shall be in an amount agreed upon by the Contractor and Purchaser, failure to agree to such amount shall be a dispute within the meaning of Clause 41 (Disputes).
- 39.11 The Purchaser may withhold from amounts otherwise due to the Contractor for such completed Work or manufacturing materials such sum as the Purchaser determines to be necessary to protect the Purchaser against loss because of outstanding liens or claims of former lien holders.
- 39.12 If, after notice of termination of this Contract under the provisions of this Clause, it is determined for any reason that the Contractor was not in default under the provisions of this Clause, or that the default was excusable under the provisions of this Clause, the rights and obligations of the Parties shall be the same as if the notice of termination had been issued pursuant to Clause 40 (Termination for the Convenience of the Purchaser).
- 39.13 If after such notice of termination of this Contract under the provisions of this Clause, it is determined for any reason that the Contractor was not in default under the provisions of this Clause and that the Parties agree that the Contract should be continued, the Contract shall be equitably adjusted to compensate for such termination and the Contract modified accordingly. Failure to agree to any such adjustment shall be a dispute within the meaning of Clause 41 (Disputes).
- 39.14 The rights and remedies of the Purchaser provided in this Clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

40. TERMINATION FOR THE CONVENIENCE OF THE PURCHASER

- 40.1 The performance of Work under this Contract may be terminated by the

Purchaser in accordance with this Clause in whole, or from time to time in part, whenever the Purchaser shall determine that such termination is in the best interest of the Purchaser.

- 40.2 Any such termination shall be effected by delivery to the Contractor of a written notice of termination, signed by the Contracting Authority, specifying the extent to which performance of Work under the Contract is terminated, and the date upon which such termination becomes effective.
- 40.3 After receipt of a Notice of Termination and except as otherwise directed by the Contracting Authority, the Contractor shall:
- 40.3.1 stop the Work on the date and to the extent specified in the notice of termination;
 - 40.3.2 place no further orders or Sub-contracts for Work, Parts, materials, services or facilities, except as may be necessary for completion of such portion of the Work under the Contract as is not terminated;
 - 40.3.3 terminate all orders and Sub-contracts to the extent that they relate to the performance of Work terminated by the Notice of Termination;
 - 40.3.4 assign to the Purchaser, in the manner, at the times and to the extent directed by the Purchaser, all of the right, title and interest of the Contractor under the orders and Sub-contracts so terminated, in which case the Purchaser shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and Sub-contracts;
 - 40.3.5 settle all outstanding liabilities and all claims arising out of such termination of orders and Sub-contracts, with the approval or ratification of the Purchaser to the extent he may require, which approval or ratification shall be final for all the purposes of this Clause;
 - 40.3.6 transfer title and deliver to the Purchaser in the manner, at the times, and to the extent, if any, directed by the Contracting Authority of:
 - 40.3.6.1 the fabricated parts, work in process, completed work, Work, and other material produced as a part of, or acquired in connection with the performance of the Work terminated by the notice of

termination, and

40.3.6.2 the completed or partially completed plans, drawings, information, and other property which, if the Contract had been completed, would have been required to be furnished to the Purchaser;

40.3.7 use his best efforts to sell, in the manner, at the times, to the extent, and at the price or prices directed or authorised by the Contracting Authority, any property of the types referred to in Clause 40.3.6 above. However, the Contractor:

40.3.7.1 shall not be required to extend credit to any Buyer; and

40.3.7.2 may acquire any such property under the conditions prescribed by and at a price or prices approved by the Purchaser; and provided further that the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the Purchaser to the Contractor under this Contract or shall otherwise be credited to the price or cost of the Work or paid in such manner as the Contracting Authority may direct;

40.3.8 complete performance of such part of the Work as shall not have been terminated by the Notice of Termination; and

40.3.9 take such action as may be necessary, or as the Purchaser may direct, for the protection and preservation of the property related to this Contract which is in the possession of the Contractor and in which the Purchaser has or may acquire an interest.

40.4 The Contractor may submit to the Purchaser a list, certified as to quantity and quality, of any or all items of termination inventory not previously disposed of, exclusive of items the disposition of which has been directed or authorised by the Purchaser, and may request the Purchaser to remove such items or enter into a storage agreement covering the same; provided that the list submitted shall be subject to verification by the Purchaser upon removal of the items, or if the items are stored, within forty-five (45) Days from the date of submission of the list, and any necessary adjustment to correct the list as submitted shall be made prior to final settlement.

- 40.5 After receipt of a notice of termination, the Contractor shall submit to the Purchaser his termination Claim for the Work covered by the notice of termination, in the form and with certification prescribed by the Purchaser. Such claim shall be submitted promptly but in no event later than six (6) months from the effective date of termination, unless one or more extensions are granted in writing by the Purchaser, upon request of the Contractor made in writing within such six-month period or authorised extension thereof. However, if the Purchaser determines that the facts justify such action, the Purchaser may receive and act upon any such termination claim at any time after such six-month period or any extension thereof. Upon failure of the Contractor to submit his termination claim within the time allowed, the Purchaser may determine on the basis of information available to him, the amount, if any, due to the Contractor by reason of the termination and shall thereupon pay to the Contractor the amount so determined.
- 40.6 Subject to the provisions of Clause 40.5, the Contractor and the Purchaser may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of Work pursuant to this Clause, which amount or amounts may include a reasonable allowance for profit on work done; provided that such agreed amount or amounts exclusive of settlement costs shall not exceed total Contract price as reduced by the amount of payments otherwise made and as further reduced by the Contract price of the Work not terminated. The Contract shall be amended accordingly and the Contractor shall be paid the amount agreed.
- 40.7 In the event of the failure of the Contractor and the Purchaser to agree as provided in Clause 40.6 upon the whole amount to be paid to the Contractor by reason of the termination of Work pursuant to Clause 40, the Purchaser shall pay to the Contractor the amounts determined by the Purchaser as follows, but without duplication of any amounts agreed upon in accordance with Clause 40.6 the total of:
- 40.7.1 for completed Work accepted by the Purchaser (or sold or acquired as provided in Clause 40.3 above) and not therefore paid for, a sum equivalent to the aggregate price for such Work computed in accordance with the price or prices specified in the Contract, appropriately adjusted for any saving of freight or other charges;
 - 40.7.2 the costs incurred in the performance of the Work terminated including initial costs and preparatory expense allocable thereto, but exclusive of any costs attributable to Work paid or to be paid for under Clause 40.7.1;
 - 40.7.3 the cost of settling and paying claims arising out of the termination of work under Sub-contracts or orders, as

provided in Clause 40.3.5, which are properly chargeable to the terminated portion of the Contract, exclusive of amounts paid or payable on account of Work or materials delivered or services furnished by Sub-contractors or vendors prior to the effective date of the notice of termination, which amounts shall be included in the costs payable under Clause 40.7.2; and

- 40.7.4 a sum, as profit on Clause 40.7.1 above, determined by the Purchaser to be fair and reasonable; provided, however, that if it appears that the Contractor would have sustained a loss on the entire Contract, had it been completed, no profit shall be included or allowed and an appropriate adjustment shall be made reducing the amount of the settlement to reflect the indicated rate of loss; and
- 40.7.5 the reasonable costs of settlement, including accounting, legal, clerical and other expenses reasonably necessary for the preparation of settlement claims and supporting data with respect to the terminated portion of the Contract and for the termination and settlement of Sub-contracts there under, together with reasonable storage, transportation, and other costs incurred in connection with the protection, or disposition of property allocable to this Contract.
- 40.8 The total sum to be paid to the Contractor under Clause 40.7 shall not exceed the total Contract price as reduced by the amount of payments otherwise made and as further reduced by the Contract price of Work not terminated.
- 40.9 Except for normal spoilage, and except to the extent that the Purchaser shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the Contractor, as provided in Clause 40.7 above, the fair value, as determined by the Purchaser, of property which is destroyed, lost, stolen, or damaged so as to become undeliverable to the Purchaser, or to a buyer pursuant to Clause 40.3.7 above.
- 40.10 The Contractor shall have the right to dispute, under the Clause 41 (Disputes), any determination made by the Purchaser under Clauses 40.5 and 40.7, except that if the Contractor has failed to submit his claim within the time provided in Clause 40.5 and has failed to request extension of such time, the Contractor shall be foreclosed from his right to dispute said determination. In any case where the Purchaser has made a determination of the amount due under Clauses 40.5 and 40.7, the Purchaser shall pay the Contractor the following:

- 40.10.1 if there is no right of appeal hereunder or if no timely appeal has been taken, the amount so determined by the Purchaser, or
- 40.10.2 if an appeal has been taken, the amount finally determined on such appeal.
- 40.11 In arriving at the amount due to the Contractor under this Clause there shall be deducted:
- 40.11.1 all unliquidated advance or other payments on account theretofore made to the Contractor, applicable to the terminated portion of this Contract;
- 40.11.2 any claim which the Purchaser may have against the Contractor in connection with this Contract; and
- 40.11.3 the agreed price for, or the proceeds of the sale of, any materials, Work, or other things acquired by the Contractor or sold, pursuant to the provisions of this Clause, and not otherwise recovered by or credited to the Purchaser.
- 40.12 If the termination hereunder is partial, prior to the settlement of the terminated portion of this Contract, the Contractor may file with the Purchaser, in accordance with Clause 16 (Changes), a request in writing for an equitable adjustment of the price or prices relating to the continued portion of the Contract (the portion not terminated by the notice of termination), and such equitable adjustment as may be agreed upon shall be made in such price or prices.
- 40.13 The Purchaser may from time to time, under such terms and conditions as it may prescribe, make partial payments and payments on account against costs incurred by the Contractor in connection with the terminated portion of this Contract whenever in the opinion of the Purchaser the aggregate of such payments shall be within the amount to which the Contractor will be entitled hereunder. If the total of such payment is in excess of the amount finally agreed or determined to be due under this Clause, such excess shall be payable by the Contractor to the Purchaser upon demand, together with interest calculated using the average of the official base rate(s) per annum of the deposit facility rate as notified by the European Central Bank or such other official source as may be determined by the Purchaser, for the period from the date the excess is received by the Contractor to the date such excess is repaid to the Purchaser, provided, however, that no interest shall be charged with respect to any such excess payment attributed to a reduction in the Contractor's claim by reason of retention or other disposition of termination inventory until ten days after the date of such retention or disposition or such

later date as determined by the Purchaser by reason of the circumstances.

40.14 Unless otherwise provided for in this Contract, the Contractor, from the effective date of termination and for a period of three years after final settlement under this Contract, shall preserve and make available to the Purchaser at all reasonable times at the office of the Contractor, but without direct charge to the Purchaser, all his books, records, documents, computer files and other evidence bearing on the costs and expenses of the Contractor under this Contract and relating to the work terminated hereunder, or, to the extent approved by the Purchaser, photographs, micro-photographs, or other authentic reproductions thereof.

41. DISPUTES

41.1 Except to the extent to which special provision is made elsewhere in the Contract, all disputes, differences or questions which are not disposed of by agreement between the Parties to the Contract with respect to any matter arising out of or relating to the Contract, other than a matter as to which the decision of the Contracting Authority under the Contract is said to be final and conclusive, shall be decided by the Contracting Authority. The Contracting Authority shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Contractor.

41.2 The Contracting Authority shall not proceed with the evaluation and decision in respect of any claim until and unless the Contractor has submitted the attestation as foreseen in Clause 18 (Claims), as well as the complete proof and evidence of the claim (either by submission or by identification of the relevant documentation).

41.3 The Contracting Authority's decision shall be final and conclusive unless, within 30 Days from the date of receipt of such copy, the Contractor mails or otherwise furnishes to the Contracting Authority his decision to open arbitration proceedings in accordance with the Clause 42 (Arbitration). The burden of proof for both receipt and delivery of such documentation shall be by signed and dated registered mail receipt or by hand receipt as acknowledged and signed by the Contracting Authority.

41.4 Pending final decision of a dispute, the Contractor shall proceed diligently with the performance of the Contract, unless otherwise instructed by the Contracting Authority.

42. ARBITRATION

42.1 Within a period of thirty days from the date of receipt of the notification referred to in Clause 41.3 above, the Parties shall jointly appoint an arbitrator. In the event of failure to appoint an arbitrator, the dispute or disputes shall be submitted to an Arbitration Tribunal consisting of three arbitrators, one being

appointed by the Purchaser, another by the other contracting party and the third, who shall act as President of the Tribunal, by these two arbitrators. Should one of the Parties fail to appoint an arbitrator during the fifteen days following the expiration of the first period of thirty days, or should the two arbitrators be unable to agree on the choice of the third member of the Arbitration Tribunal within thirty days following the expiration of the said first period, the appointment shall be made, within twenty-one days, at the request of the Party instituting the proceedings, by the Secretary General of the Permanent Court of Arbitration at The Hague.

- 42.2 Regardless of the procedure concerning the appointment of this Arbitration Tribunal, the third arbitrator will have to be of a nationality different from the nationality of the other two members of the Tribunal.
- 42.3 Any arbitrator must be of the nationality of any one of the member states of NATO and shall be bound by the rules of security in force within NATO.
- 42.4 Any person appearing before the Arbitration Tribunal in the capacity of an expert witness shall, if he is of the nationality of one of the member states of NATO, be bound by the rules of security in force within NATO. If he is of another nationality, no NATO classified documents or information shall be communicated to him.
- 42.5 An arbitrator, who, for any reason whatsoever, ceases to act as an arbitrator, shall be replaced under the procedure laid down in Clause 42.1 above.
- 42.6 The Contractor agrees to submit to the Arbitration Tribunal only such issues, facts, evidence and proof which the Contractor had beforehand identified and submitted to the Contracting Authority for decision in accordance with Clause 41 (Disputes). The jurisdictional authority of the Arbitration Tribunal shall be restricted to consider only those identical issues, facts, evidence and proof so identified and submitted to the Contracting Authority.
- 42.7 The Purchaser likewise agrees to restrict its submissions only to the information on which the Contracting Authority based its decision and not to introduce new information and arguments which cannot reasonably be deduced or inferred from the written decision of the Contracting Authority in response to the original dispute.
- 42.8 The Arbitration Tribunal will take its decisions by a majority vote. It shall decide where it will meet and, unless it decides otherwise, shall follow the arbitration procedures of the International Chamber of Commerce in force at the date of signature of the present Contract.
- 42.9 The awards of the arbitrator or of the Arbitration Tribunal shall be final and there shall be no right of appeal or recourse of any kind. These awards shall

determine the apportionment of the arbitration expenses.

42.10 Pending final decision of a dispute, the Contractor shall proceed diligently with the performance of the Contract, unless otherwise instructed by the Contracting Authority.

43. SEVERABILITY

43.1 If one or more of the provisions of this Contract is declared to be invalid, illegal or unenforceable in any respect under any applicable law, the validity, legality and enforceability of the remaining provisions shall not be affected. Each of the Parties shall use its best efforts to immediately and in good faith negotiate a legally valid replacement provision.

44. APPLICABLE LAW

44.1 This Contract shall be governed, interpreted and construed in accordance with the private contract law of the Kingdom of Belgium.

* *

ANNEX 1 TO GENERAL PROVISIONS: PURCHASER'S PRICING PRINCIPLESA. General

1. With regard to all actions included in Clause 19," Pricing of Changes, Amendments and Claims", the Parties agree that the Purchaser's Pricing Principles contained herein shall govern.
2. As may be requested by the Purchaser, the Contractor shall provide documentation that the standards or principles employed in the submission of cost or pricing data are in conformance with governing national policies and regulation. The Contractor, when submitting a price proposal based upon national standards and regulations, shall provide a point of contact within the national body governing such standards and regulations in order to allow Purchaser verification and audit.
3. Where such conformance cannot be demonstrated to the satisfaction of the Purchaser, the Purchaser's Pricing Principles will govern.
4. The Contractor shall clearly state whether national standards and rules or the Purchaser's Pricing Principles and formats are the basis for the price proposal.
5. Whether national standards or Purchaser pricing principles are applied, all cost and pricing data shall be verifiable, factual and include information reasonably required to explain the estimating process.
6. The Contractor shall also incorporate provisions corresponding to those mentioned herein in all sub-contracts, and shall require price and cost analysis provisions be included therein.

B. Purchaser's Pricing Principles

1. Allowable cost

A cost is allowable for consideration by the Purchaser if the following conditions are fulfilled:

- (a) it is incurred specifically for the Contract or benefits both the Contract and other work or is necessary to the overall operation of the business although a direct relationship to any particular product or service cannot be established and is allocated to them in respective proportion according to the benefit received;

- i. Direct Costs

A direct cost is any cost which can be identified specifically with a particular cost objective as generally accepted. Direct costs are not limited to items which are incorporated in the end product as material or labour.

ii. Indirect Costs

An indirect cost is one which is not readily subject to treatment as a direct cost. When presented these costs shall be accumulated in logical cost groupings in accordance with sound accounting principles and the Contractor's established practices. An indirect cost may be allocated to more than one final cost objective. An indirect cost shall not be allocated to a final cost objective if other costs incurred for the same purpose, in like circumstances, have been included as a direct cost of that or any other final cost objective. Such costs shall be presented as overhead rates and be applied to each related direct cost grouping.

- (b) The Contractor shall specify the allocation of costs to either of the cost groupings. The method by which costs are accumulated and distributed as part of direct or indirect costs cannot be modified during the duration of the Contract.
- (c) It is reasonable and expedient in its nature and amount and does not exceed that which would be incurred by an ordinary prudent person in the conduct of competitive business;
- (d) It is not liable to any limitations or exclusion as to types or amounts of cost items as set forth herein.
- (e) The Purchaser will review other costs presented against the contract and will determine if they would be allowable.

2. Unallowable Costs

In general all costs which cannot be shown by the contractor to be directly or indirectly of benefit to the Contract are totally unallowable. Examples of such costs are, among others:

- (a) Advertising costs
- (b) Costs of remuneration, having the nature of profit sharing.
- (c) Costs of maintaining, repairing and housing idle and excess facilities.
- (d) Fines and penalties as well as legal and administrative expenses resulting from a violation of laws and regulations.
- (e) Losses on other contracts or on expected follow-on contracts
- (f) Costs incurred for the creation of reserves for general contingencies or other reserves (e.g. for bad debts, including losses).
- (g) Losses on bad debts, including legal expenses and collection costs in connection with bad debts.

- (h) Costs incurred to raise capital.
- (i) Gains and losses of any nature arising from the sale or exchange of capital assets other than depreciable property.
- (j) Taxes on profits.
- (k) Contractual penalties incurred.
- (l) Commissions and gratuities.
- (m) Interest on borrowings.

3. Rates and Factors

- (a) The Contractor shall inform the Purchaser of his rates and factors the basis upon which they were computed.
- (b) If the Contractor's rates and factors for similar contracts placed with national or international public services have not been established or approved by a government agency or an agency accepted by his government, the Contractor shall provide the necessary data to support the proposed rates.
- (c) The term "provisional " used in the title of a rate or factor means a tentative rate established for interim billing purposes pending negotiation and agreement to the final rate or factor.
- (d) A rate or factor is pre-determined if it is fixed before or during a certain period and based on (estimated) costs to be incurred during this period. A rate or factor is post-determined if it is fixed after a certain period and based on costs actually incurred during this period. Pre-determined rates or factors shall be agreed upon as final rates whenever possible; otherwise the provisions of paragraph 3c above shall apply pending agreement to post-determined rates or factors.
- (e) Such rates or factors shall be determined on the basis of Contractor's properly supported actual cost experience.
- (f) If the rates or factors of the Contractor for similar contracts placed by national or international public services have been established or approved by a government agency or an agency accepted by his government and the Contractor proposes the application of these rates, he shall state the name and address of the agency which has accepted or approved the rates and the period for which they were established. If he proposes rates which vary from the rates mentioned above, he shall furthermore provide a justification for the difference.

4. Profit/Benefit

- (a) Over the entire life cycle of a given acquisition, Profit and/or Benefit may be subject to negotiation.
- (b) Subcontracting profit/benefit amounts are dependent upon the size, nature and oversight needs of the subcontract(s) the prime contractor will use for work performance period.
- (c) Profit/benefit is considered by the Purchaser to be directly related to the anticipated risk of the Contractor during the performance of the Contract.

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IFB-CO-14311-BCA

**Replace Submarine Broadcast Control Authority
Communications Equipment**



BOOK II

PART IV – STATEMENT OF WORK (SOW)

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SECTION 1 INTRODUCTION

1.1. Overview

- 1.1.1. This Statement of Work (SOW) describes the responsibilities of and efforts to be performed by the Contractor in satisfying the requirements of the BCA Replacement project. The SOW is comprised of fourteen (14) sections that describe, from a technical and managerial standpoint, the requirements for the Contractor's performance during the Contract.
- 1.1.2. The scope of the BCA Replacement project is to implement the electronic portion (communication and information system) of the BCA system and procure, design, deliver, install, test and support communication equipment of the BCA system.

1.2. Purpose of the Project

- 1.2.1. The purpose is to replace the Broadcast Control Authority portion of the NATO VLF MSK broadcast system with modern and upgradeable equipment. The current system was implemented in 2002 and is experiencing regular and prolonged failures which is impacting on HQ MARCOM's ability to provide safe Command and Control of NATO assigned submarines. Many items of hardware are obsolete or difficult to procure and are only provided with short warranty periods (30 days). The software is only compatible with outdated versions of Microsoft Windows and therefore also needs to be replaced.
- 1.2.2. VLF MSK provides enhanced broadcast communications between Submarine Operating Authorities (SUBOPAETH) and submarines at sea.
- 1.2.3. VLF MSK provides reliable and flexible communications within the NATO operational Area of Responsibility (AOR) with a 365 24/7 availability
- 1.2.4. This project will incorporate the main HQ MARCOM site located at Northwood, GBR. HQ MARCOM have an alternate site at Whitehall, GBR which is not currently included in this SOW. Further details for these sites are provided at Annex B.

1.3. Standards for interpretation of the Statement of Work (SOW)

- 1.3.1. Throughout this Statement of Work (SOW), the following standards shall apply:

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- a. Whenever requirements are stated herein to "include" a group of items, parameters, or other considerations, "include" means "include but not limited to";
- b. Whenever reference is made to a section, tasks, or paragraph, the reference includes all subordinate and referenced paragraphs;
- c. The order of the SOW requirements is not intended to specify the order in which they must be carried out unless explicitly stated. The SOW defines the activities the Contractor's process shall cover, i.e., the Contractor's implementation plans determine the timing of Contractor detailed activities;
- d. For purposes of the SOW, the term "the Purchaser" means the NATO Communications and Information Agency (NCI Agency) or its authorised representatives;
- e. The convention to be used for dates appearing in free text (e.g. quoting dates of meetings) is day-month-year and not month-day-year.

SECTION 2 PROJECT MANAGEMENT

2.1 Purchaser's Project Management Approach

- 2.1.1. The Purchaser will manage the project using the PRINCE2 project management methodology. Under this methodology, the Project Executive (the Purchaser) controls the project through a Project Board, which he chairs.
- 2.1.2. The Contractor shall nominate a management-level representative to the Project Board. This representative shall attend Project Board meetings called where it becomes evident that the project will fail to meet its objectives in terms of time, performance, quality or cost. The Contractor representative shall have authority to commit the Contractor's resources.
- 2.1.3. The role of the Contractor representative to the Project Board shall be:
 - a. Ensuring that the required Contractor-provided resources for the project are made available in accordance with the project plan;
 - b. Assessing the viability of delivering products on time and within the budget;
 - c. Providing a coordinated Supplier (Contractor) view;

2.2. Contractor's responsibility, Organization and Personnel

- 2.2.1. The Contractor shall establish a project management organisation for the purpose of performing and managing the efforts necessary to satisfactorily discharge his responsibilities under this Contract.
- 2.2.2. The names and contact details of the Contractor's project management team and the Purchaser's project management team shall be exchanged at the Effective Date of Contract (EDC).
- 2.2.3. The Contractor shall provide the necessary manpower and resources to conduct and support the management and administration of his operations in order to meet the overall objectives of the contract.
- 2.2.4. The Contractor shall get written approval of the Purchaser if any personnel and responsibility changes occur in the contractor's project organization during the Contract.

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- 2.2.5. During project execution, the project shall be controlled in accordance with the approved Project Implementation Plan. As part of the monitoring and control function, the Contractor shall advise the Purchaser at all times of potential implementation problems and schedule risks.
- 2.2.6. Contractor's project manager and personnel working at Purchaser premises/sites shall be security cleared to "NATO SECRET" level. Contractor personnel without such a clearance, confirmed by the appropriate national security authority and transmitted to the cognizant NATO security officer at least fourteen (14) calendar days prior to any site visit, will be denied access to any of the Purchaser premises/sites. Denial of such access by the Purchaser may not be used by the Contractor as the basis for a claim of adjustment or an extension of schedule nor can the denial of access be considered a mitigating circumstance in the case of an assessment of Liquidated Damages and/ or a determination of Termination for Default by the Purchaser.
- 2.2.7. This requirement applies also to all personnel involved in this project as a result of subcontracts issued by the Contractor for effort under the prime Contract

2.3. Project Implementation Plan (PIP)

2.3.1. General

- a. The Contractor shall prepare and submit a draft Project Implementation Plan (PIP) for Purchaser's approval that shall describe how the Contractor shall implement the totality of the project, including details of the controls that shall be applied. The PIP shall describe the processes and procedures that the Contractor shall follow to plan, design, and test and install all the systems that are part of this Contract.
- b. The PIP shall identify all major Contractor operating units and any Sub-contractors involved in the development of BCA Replacement systems and shall describe the portion of the overall effort or deliverable item for which they are responsible for.
- c. The PIP shall cover all aspects of the project implementation, including the Contractor's project management structure and project control processes, personnel assignments, and external relationships necessary to provide the capability as required by this Contract.

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- d. The PIP shall be sufficiently detailed to ensure that the Purchaser is able to assess the Contractor's plans and capability to implement the entire project in conformance with the requirements specified herein.
- e. The PIP shall define the major quality checkpoints that shall be implemented while executing the project and the quality process to be used at each checkpoint.
- f. The PIP shall cite any references used in the quality management, such as methodologies, tools or best practice material.
- g. The PIP shall identify the organisation and responsibilities of the quality assurance team and its relation to the project team.
- h. If sub-contracted quality resources are used, the PIP shall describe the controls and processes in place for monitoring the Sub-Contractor's work against agreed timelines and levels of quality.
- i. The Contractor shall ensure that the PIP, including associated plans, remains up to date throughout the duration of the Project to reflect the actual state of the Contractor's organisation and efforts.
- j. The PIP shall include the following sections and provide the major plans required under this Contract:
 - i. PIP Section 1: Project Management and Control
 - ii. PIP Section 2: System Engineering and Design
 - iii. PIP Section 3: Quality Assurance
 - iv. PIP Section 4: Configuration Management
 - v. PIP Section 5: Integrated Logistics Support
 - vi. PIP Section 6: Test and Evaluation (Including Security Test & Verification Plan – (STVP)
 - vii. PIP Section 7: Documentation
 - viii. PIP Section 8: System Acceptance
 - ix. PIP Section 9: Training

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- x. PIP Section 10: Reliability, Availability, Maintainability and Testability (RAMT)
 - xi. PIP Section 11: Security Accreditation Plan (SAP)
 - xii. PIP Section 12: Risk Assessment and Management Plan (RAMP)
 - xiii. PIP Section 13: Site Installations
- k. Within six (6) calendar weeks from EDC, the Contractor shall submit the draft PIP to the Purchaser for review. The Purchaser will review the draft PIP. Two (2) months after the EDC, when, at a time to coincide with the second Project Progress Meeting (PPM), a presentation shall be held by the Contractor to the Purchaser at the Purchaser's facility in a PIP Review Meeting. This presentation shall consist of an outline of the salient features of the planned project management and an assessment of the risk areas involved in the project schedule and meeting the requirements of the Contract. During the presentation of the PIP, the Purchaser will discuss the draft design of the systems (and associated components) that is proposed and matters of interest with the Contractor.
- l. Before and/or during the presentation, the Purchaser will provide initial comments and an assessment of the draft PIP concerning the need for correction of error and/or inconsistency and the inclusion of material that has been omitted.
- m. Two (2) weeks after receipt of the Purchaser's comments, the Contractor shall deliver, for Purchaser's acceptance, the final version of the PIP that shall incorporate all Purchaser comments concerning deviations from and omissions of Contract requirements.
- n. The final version of the PIP, as accepted by the Purchaser, shall be the official document against which the Contractor is expected to conduct the performance of the Contract and shall be used to measure Contract progress against the delivery requirements of the Schedule.

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- o. Purchaser's acceptance of the final version of the PIP does not constitute Purchaser approval of the Contractor's plan, but signifies that the Purchaser considers the plan to be a logical and satisfactory approach to the management of the required activities, based upon the information provided. This approval in no way relieves the Contractor from its responsibilities to meet the requirements stated in this Contract. The requirements of the Contract supersede the statements of the PIP in the case of any conflict, ambiguity or omission.
- p. The Contractor shall provide copies of all documents, spreadsheets, Work Breakdown Structure (WBS), Gantt Charts, etc, that are presented in the PIP to the Purchaser in the quantities as specified in the Schedule of Supplies and Services (SSS) and format as specified in SOW [SECTION 2](#).

2.3.2. PIP Section 1 – Project Management and Control

- a. In PIP Section 1 the Contractor shall establish, provide and maintain a Project Management and Control Plan (PMCP) that shall describe how the Contractor shall implement the totality of the project, including details on the project control processes that shall be applied.
- b. The Project Management and Control Plan shall define in detail how the Contractor intends to manage this project from EDC through to Final System Acceptance (FSA) and throughout the Warranty period. It shall consider all aspects of project management and control and demonstrate by means of programme analysis and planning how all the critical dates defined in the Contract shall be met. In order to be compatible with the Purchaser's software used for Project management purposes, all documents, worksheets, drawings, slides and schedules/plans shall be prepared using the software tools as indicated in SOW [SECTION 2](#) and [SECTION 13](#). This Section shall include, but not be limited to, the following aspects:
 - i. A description of the management structure of the Contractor's Project Team Organisation (PTO) that shall indicate its relationship within the company structure;
 - ii. A list of personnel assigned to the Contractor's PTO that shall define their respective roles, responsibilities and authority;

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- iii. A description of Contractor and Sub-Contractor (or any third party) relationships that shall demonstrate how the Contractor effectively manages, monitors and controls the Sub-Contractor(s);
- c. As a part of PMCP of PIP, the Contractor shall also establish, deliver and maintain a Project Work Breakdown Structure (PWBS), as follows:
 - i. The PWBS shall define all work packages and the relationship between the work packages and the supplies and services to be delivered to the Purchaser. The contractor shall capture 100% of the work defined by the project scope, as well as all deliverables – internal, external, and interim – in terms of the work to be completed, including project management, in the PWBS;
 - ii. The PWBS shall include a PWBS Directory that describes each component of the PWBS with milestones, deliverables, activities, scope, and dates, resources, costs, quality;
 - iii. The PWBS shall decompose the work packages to a level that exposes all project risk factors and allows accurate estimate of each work item's duration, resource requirements, inputs and outputs, and predecessors and successors;
 - iv. Activity or series of activities defined in the PWBS shall not be longer than a single reporting period;
 - v. The PWBS elements shall be coded sequentially to reveal a hierarchical structure;
 - vi. The PWBS shall identify the scope of work for all PIP sections and shall capture all associated deliverables – internal, external and interim - in terms of work to be completed;
 - vii. The PWBS shall define interfaces between the Contractor's deliverables and Purchaser Furnished Equipment (PFE)/Facilities/ Information regarding the Project.
- d. During the performance of the Contract, the Contractor shall not change the PWBS, its associated definitions, or any of its reporting elements without the approval of the Purchaser.

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- e. The Contractor shall use the PWBS as the primary framework for Contract planning and reporting to the Purchaser. The PWBS shall define the products to be developed and produced, and relate the elements of work to each other and to the end product.
- f. As a part the PMCP of the PIP, the Contractor shall also establish, deliver and maintain a Project Master Schedule (PMS) that contains all contract events and milestones. The PMS shall correlate with the PWBS. The PMS shall show the start and completion dates of each activity, using calendar year timescales divided into weeks and shall show the interfaces with other activities as follows:
 - i. The PMS shall depict the sequence, duration, and relationship among PWBS, tasks, work packages and work items;
 - ii. The PMS shall identify the start and finish dates, duration, predecessors, successors, and resource requirements for each work item;
 - iii. The PMS shall include the delivery dates for all project products, including at least the initial version and the final one;
 - iv. The PMS shall include activity network, activity GANTT, Program Evaluation Review Technique (PERT) charts, developed in formats interoperable with Microsoft (MS) Project 2010, showing detailed and high level schedules with associated resources and dependencies, milestone, and critical path views of the project schedule. Critical paths shall be clearly identified in the PMS;
 - v. The Contractor shall maintain the baseline version of the PMS on the relevant documentation folder.
- g. The PMCP shall cover at least the following areas:
 - i. Project scope;
 - ii. Major deliverables;
 - iii. Assumptions;
 - iv. Project organisation;
 - v. Internal structure which shall include a project organisational diagram;

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- vi. Roles and responsibilities of each organisational unit;
 - vii. Project resources, Key personnel, their qualifications, and their responsibilities (All resources shall be assigned to project task within the PIP);
 - viii. Organisational boundaries between the project organisation and the parent and subcontracted organisations;
 - ix. Project management processes;
 - x. Project start-up, which shall include staffing, basis of cost and schedule estimates, and project infrastructure;
 - xi. Project control, which shall include monitoring, reporting, and change management of work packages;
 - xii. Issue management, which shall include the identification, reporting, assessment, and logging of project issues;
 - xiii. Communications management, Project Checkpoint Reports (refer to 2.4 below), and all other communications with the Purchaser;
 - xiv. Security management, which shall include personnel and facility (site) security;
 - xv. Purchaser involvement via meetings, reporting, modification and change, implementation, verification, approval, acceptance and access to facilities;
 - xvi. Subcontracting plan demonstrating that the Contractor can effectively manage, monitor and control the sub-contractors and that the sub-Contractors will agree to abide by the requirements of the prime Contract as pertains to flow-down provisions;
- h. The Contractor shall identify in his preliminary Project Management and Control Plan the constraints of the implementation environment, their effects on the project execution and his mitigation measures.

2.3.3. PIP Section 2 - System Engineering and Design

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- a. The Contractor shall furnish in PIP Section 2, the System Engineering and Design Plans for the BCA Replacement system. These shall address the design of the system proposed in accordance with SOW paragraph 4.2 below

The System Safety Engineering Plan shall provide as a sub-plan, the System Safety Engineering Plan in accordance with the SOW paragraph 4.3 below. During the presentation of the PIP, the Purchaser will review the draft design of the systems (and associated components) that is proposed.

2.3.4. PIP Section 3 - Quality Assurance

- a. PIP Section 3 shall describe the Contractor's Quality Assurance Organisation and Quality Assurance (QA)/Quality Control (QC) System, which shall be in accordance with SOW [SECTION 6](#).

2.3.5. PIP Section 4 - Configuration Management (CM)

- a. The Contractor shall provide in PIP Section 4 a Configuration Management CM Plan that shall define the initial configuration items CI(s), the organisation and procedures used to manage the configuration of the functional and physical characteristics of CI(s), including interfaces and configuration identification documents, as set forth in SOW [SECTION 7](#).
- b. Configuration Management (CM), which shall include Configuration Item (CI) identification, identification and control of change requests and deficiency reports, configuration status accounting, auditing, and co-ordination of Contractor and Purchaser configuration management and change control processes, for both documentation and material deliverables (i.e. services).

2.3.6. PIP Section 5 - Integrated Logistic Support (ILS)

The Contractor shall describe in PIP Section 5 how he intends to fulfil all Integrated Logistics Support (ILS) requirements in accordance with SOW Section 8.

2.3.7. PIP Section 6 - Test and Evaluation

The Contractor shall define in PIP Section 6 his proposed test organisation and provide a Test and Evaluation Plan (TEP) in accordance with SOW SECTION 10 below. This plan (TEP) shall also include a Security Test and Verification Plan (STVP).

2.3.8. PIP Section 7 - Documentation

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The Contractor shall provide in PIP Section 7 a detailed plan to deliver all documentation in accordance with SOW [SECTION 13](#) below. The Contractor shall identify the documentation team and the individual responsible within his organisation to ensure such documentation is delivered on schedule and to the Contract requirements.

2.3.9. PIP Section 8 - System Acceptance

The Contractor shall provide in PIP Section 8 a plan to accomplish all the activities required and to ensure the successful Final System Acceptance (FSA) in order to meet the requirements of SOW SECTION 11 below

2.3.10. PIP Section 9 - Training

The Contractor shall set forth in PIP Section 9 his Plan to fulfil the Training requirements of the Contract as specified in SOW Section 14.

2.3.11. PIP Section 10 - Reliability, Availability, Maintainability and Testability (RAMT)

The Contractor shall set forth in Section 10 in his Plan to fulfil the Reliability, Availability, Maintainability and Testability requirements of the Contract as specified in SOW [SECTION 9](#).

2.3.12. PIP Section 11 - Security Accreditation Plan (SAP)

The Contractor shall provide in PIP Section 11 his Plan to fulfil the Security Accreditation requirements of the Contract as specified in SOW [SECTION 5](#).

2.3.13. PIP Section 12 - Risk Assessment and Management Plan (RAMP)

- a. The Contractor shall provide in PIP Section 12 his Plan to fulfil the Risk Assessment and Management requirements of the Contract as specified in SOW paragraph 2.7 below. This RAMP shall define the strategy for risk management and the way the risk management process, which shall include risk identification, risk assessment, risk mitigation, risk monitoring, and risk reporting, shall be conducted throughout the Contract duration.
- b. Risk management, which shall include the Contractor's and sub-contractor's process for risk identification, assessment, mitigation, monitoring, and reporting

2.3.14. PIP Section 13 – Site Installation

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- a. The Contractor shall provide in PIP Section 13 his Plan to fulfil the Site Installation requirements of the Contract as specified in SOW Section 12 and SOW Annex B herein.
- b. If required; in order to mitigate potential disruption of communication services by contractor activities, the Contractor shall develop a System Installation Transition Plan (SITP) in coordination with the the Purchaser that shall ensure minimum disruption of provision of communications services between site preparation and Site Acceptance Test (SAT). This transition Plan shall be subject to the approval of the Purchaser. The Contractor shall have delivered a preliminary SITP that shall include but not limited to; a work schedule and task list for system installation that maximises the amount of on-air time and minimized off-air time for communications services until communications services could be supported as part of the BCA Replacement systems.

2.4. Project Checkpoint Reports (PCR)

- 2.4.1. The Contractor shall prepare and submit a Project Checkpoint Report (PCR) to the Purchaser every month after EDC for the duration of the Contract. The PCR shall contain as a minimum the following information:
 - a. Date of checkpoint;
 - b. Period covered;
 - c. Follow-ups from previous reports;
 - d. Activities during the period;
 - e. Products completed during the period;
 - f. Quality work carried out during the period;
 - g. Tolerance Status (Costs, Delays and Performances);
 - h. Actual or potential issues and risk update;
 - i. Work planned for the next period;
 - j. Products to be completed during the next period.
- 2.4.2. The PCR may be appended to the Project Progress Report for those periods when the two reports coincide.

2.5. Project Progress Reports (PPR)

- 2.5.1. The Contractor shall prepare and submit a Project Progress Report to the Purchaser Project Management Team every two (2) months after EDC for the duration of the contract.

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- 2.5.2. The Contractor shall submit the PPR reports per schedule to the Purchaser at least one week in advance of the next scheduled Project Progress Meeting (PPM). The PPR shall summarise the progress since the previous PPM, accomplishments, schedule of service deliveries against progress, difficulties encountered and resolution of any issues raised in previous PPM.
- 2.5.3. The PPR shall include, but shall not be limited to:
- a. Overall project progress, which shall include the activities performed and works completed during the preceding reporting period.
 - b. Schedule of deliverables against progress, difficulties encountered, resolution of any issues.
 - c. The Contractor's Risk Log and Issue Log, which shall be compliant with PRINCE2.
 - d. A list of Change Proposals with the current status.
 - e. Configuration Status Reports (CSR) for the system and all documentation.
 - f. An up-to-date Project Plan (GANTT chart).
 - g. A proposed agenda for the upcoming PPM and, if necessary, which may include a summary of items to be discussed.
- 2.5.4. The Purchaser will confirm in writing the specific agenda with the Contractor, one week prior to each PPM.

2.6. Project Progress Meetings (PPM)

The Contractor shall organise and participate in Project Progress Meetings (PPM) scheduled every 2 months and chaired by the Purchaser. The Contractor shall ensure that the Contractor's Project manager and appropriate support staff attend the meetings.

- 2.6.1. The first PPM shall be conducted three (3) weeks after EDC; at a time to coincide with Kick-Off Meeting. The Contractor shall introduce to the Purchaser the individuals of his organization (including sub-contractors) that are responsible for critical missions in the proposed project implementation.
- 2.6.2. The second PPM shall be conducted Two (2) months after EDC; at a time to coincide with PIP Review Meeting.
- 2.6.3. A PPM may be cancelled or postponed by the Purchaser without financial penalty.

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- 2.6.4. The normal PPM agenda proposed by the Contractor to the Purchaser approval shall include the following agenda items (non-exhaustive):
- a. Approval of the Minutes of previous PPM;
 - b. The Contractor's presentation of the Project Progress Report;
 - c. Review of project risks and issues;
 - d. Review of action items from previous meetings;
 - e. Schedule Review;
 - f. Discussion/resolution of problems and areas of concern;
 - g. Any other business.
- 2.6.5. The Contractor shall be responsible for producing the minutes of PPM and providing a draft copy for Purchaser comments within one week following the PPM.
- 2.6.6. The Purchaser will then provide comments and/or corrections made against the draft copy to the Contractor within one week of receipt.
- 2.6.7. The Contractor shall incorporate comments and/or corrections and return a final copy of the minutes to the Purchaser within one week of receipt of the Purchaser's comments and/or corrections.
- 2.6.8. The Contractor shall not consider the minutes as the basis for changes to the terms and conditions or scope of work of the contract in the absence of a formal contract amendment.
- 2.6.9. During the meetings the Contractor may be requested by the purchaser to provide detailed presentations on specific items at the subsequent PPM. A copy of the presentation material used at these activity reviews shall be handed over to the Purchaser. The Contractor shall be responsible for the following specific actions in the conduct of reviews:
- a. developing a schedule and agenda for accomplishing the required views;
 - b. co-ordinating the review, schedule and agenda with the purchaser, and provide the Purchaser with appropriate Progress Reports prior to the review;
 - c. ensuring participation of sub-contractors, vendors and suppliers, as necessary;
 - d. organising and presenting briefings as necessary;

2.7. Risk Management Programme

- 2.7.1. The Contractor shall implement and maintain as part of his overall project management process a structured programme of risk identification, assessment and management. The programme shall address as a minimum the following areas.
- a. Risk Assessment and Management Plan (RAMP) as described in PIP Section 12. The RAMP shall define the strategy for risk management and the way the risk management process, which shall include risk identification, risk assessment, risk mitigation, risk monitoring, and risk reporting, shall be conducted throughout the Contract duration.
 - b. The identification of risks for the completion of the SOW related tasks.
 - c. Analysis of potential risks to identify risk dependent areas
 - d. Assessment of the probability of each risk occurring, and quantification of its possible impacts.
 - e. Identification of a risk owner for each risk.
 - f. Alternative risk mitigation measures to decrease the effects of the potential risks identified.
- 2.7.2. The Contractor shall require that each major sub-contractor also implement a programme of risk identification, assessment and management. The Contractor shall be responsible for integrating these programmes into a single programme.
- 2.7.3. The Contractor shall appoint and identify a risk manager to be the focal point for the implementation of the risk management programme.
- 2.7.4. Risk Reporting
- The Contractor shall include in the PPR(s) a section or another report on all identified risks in descending order of priority. The section or report shall include a current assessment of the impact of each risk on work performance and schedules. The Contractor's plans/schedules for risk abatement, mitigation, and work-around shall also be presented.
- 2.7.5. Risk Status and Alarm Reporting

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Progress reports submitted by the Contractor shall address the status, potential impact and corresponding planning information for all identified risks. Any new risk area identified by the Contractor/Sub-Contractor having the potential for significant impact on the accomplishment of the Contract tasks or schedules shall immediately be brought into attention of the Purchaser.

SECTION 3 SCOPE OF WORK

3.1. Overall requirements

BCA:

- 3.1.1. The BCA Replacement system shall provide automation of messages for delivery to submarines via broadcasts.
- 3.1.2. The Contractor shall procure, design, manufacture, deliver, install, integrate, test and prepare for acceptance the BCA Replacement systems, as described in this SOW.
- 3.1.3. The applicable System Specific Requirements for BCA Replacement is presented in SOW Annex A.

3.2. Operational Requirement

- 3.2.1. The detailed description of the operational requirement is presented in SOW Annex A.

3.3. Implementation Objectives

- 3.3.1. The Contract shall be implemented in the following three (3) phases:
 - a. Phase I: The System Design and Factory Acceptance Test (FAT) phase;
 - b. Phase II: The System Delivery, Installation and Integration phase ;and
 - c. Phase III: The System Testing and Acceptance phase.
- 3.3.2. The system implementation shall be completed and the system handed over by the Contractor to the Purchaser according to the timescale specified in the Schedule of Supplies and Services (SSS) and SOW para 3.3.7.
- 3.3.3. The Contractor shall be responsible for implementation of a BCA hardware and software Replacement. The contractor shall provide all the necessary material and perform all the services required to execute the respective installation.
- 3.3.4. During the Design and FAT phase and prior to the actual installation of the system, the Contractor shall perform Factory Acceptance Tests (FAT), where compliance with the technical requirements of this Contract shall be demonstrated to the Purchaser. The FATs shall be completed by EDC plus Nine (9) months.

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- 3.3.5. Following acceptance of the FAT the Purchaser will authorize the Contractor to start the delivery and installation activities of the complete system.
- 3.3.6. The Contractor shall perform the installations of the systems at HQ MARCOM. The Contractor's activities shall include preparations for and execution of delivery, installation, integration, testing and preparing for acceptance of the system for operational use.
- 3.3.7. The Contractor shall provide the deliverables to the Purchaser in accordance with the following Schedule of Major Performance Milestones:

Item	BCA Major Performance Milestones	Delivery (not later than) NLT (EDC +)
1	Conducting Site Surveys (including preparation and reports)	4 Weeks
2	Acceptance of Project Implementation Plan (PIP)	6 weeks
3	System Requirements Review	8 weeks
4	PDR	14 weeks
5	CDR	24 weeks
6	Site Preparation Data Package (SPDP) Delivery (After the Purchaser Review)	36 weeks
7	Draft Site Installation Specifications (SIS) Delivery	36 weeks
8	FAT	40 weeks
9	Site Readiness for Installation (inspection of completeness of the site preparation)	43 weeks
10	Completion of System Installation, (Check-outs and Site Compliance Inspection including reports)	46 weeks
11	SAT	46 weeks
12	Completion of Training (including reports)	49 weeks
13	Final System Acceptance (FSA)	53 weeks

3.4. Purchaser's Responsibilities

- 3.4.1. The Purchaser is responsible for the administration of the Contract, which includes but not limited to negotiation of contract amendments and payment of invoices.

3.5. Contractor's responsibilities and activities

- 3.5.1. The services provided by the Contractor shall consist of design, procurement and delivery of hardware, software and documentation, as well as commissioning activities, installation, integration, testing and training, to meet all the requirements of BCA Replacement project as detailed throughout this document.
- 3.5.2. It is also the Contractor's responsibility to test the integration of the Contractor's provided equipment with interfacing equipment, elements and systems i.e. crypto equipment and BCS and demonstrate that both the Contractor's and these are compatible and function correctly as stipulated in this SOW.
- 3.5.3. The Contractor shall inform the NCI Agency Project Manager (PM) and Contracting Officer (CO) as detailed in the Special Contract Provisions of all contractually relevant events.
- 3.5.4. The Purchaser shall arrange locations to store all equipment and structures dismantled by the Contractor under this contract.
- 3.5.5. The Purchaser will dispose or restock the dismantled equipment, which are identified by the Contractor in SPDP to be disposed.

- 3.5.6. The Contractor's provided systems and equipment under the prospective contract shall be compatible with the infrastructure of the BCA Replacement site whose draft design is presented in Annex-B. More detailed information will be provided to the contractor during contractor site survey. During the project implementation, the Contractor shall check the Civil Works (CW) activities to ensure that infrastructure is suitable for BCA Replacement- accommodation (in terms of floor space allocation, power budget, cooling capacity etc.). In order to assure proper coordination of CW packages and to execute above mentioned controls, the Contractor will liaise with the Purchaser as specified at SOW paragraph 12.3.

3.6. Site Survey Reports (SSR)

- 3.6.1. Before the submission of the draft PIP, the Contractor shall (if required) perform a site survey at HQ MARCOM to determine any requirements to prepare the site location to receive the equipment for installation. The Contractor shall also verify the listing of existing equipment and other site specific details made available by the Purchaser, as preliminarily stipulated in SOW Annex B. Any possible requirements for civil works shall also be identified. The Contractor shall collect required data during these site surveys in order to be able to produce Site Preparation Data Package (SPDP), as stipulated at SOW Section 12 paragraph 12.5.
- 3.6.2. Following completion of the site survey, the Contractor shall prepare a draft Site Survey Report (SSR) that provides, but is not limited to the following information: all available and usable floor plan layouts, cable routing, configuration and wiring assignments, graphical depiction of contractor provided equipment and its integration with equipment, elements and systems already in situ. Beside the graphics and schematics, the Contractor shall also provide relevant information in narrative form including where applicable matrixes, tables and item lists. The Contractor shall submit the draft SSR in quantities specified in SSS and in format specified in SOW paragraph 13.3 below to the Purchaser for review within two (2) weeks after the relevant Site Survey.
- 3.6.3. Site Survey Report shall also include a Site Survey Plan. Site Survey Plan shall contain but not limited to: draft site survey workbook of checklists, fill in forms, installation sketches, contact information, installation specifications and any other documentation proposed to support site surveys.

- 3.6.4. Two (2) weeks after receipt of the Purchaser's comments, the Contractor shall deliver, for Purchaser's acceptance, the final version of the SSR that shall incorporate all Purchaser comments.

3.7. Site Installation Specifications (SIS)

- 3.7.1. The Contractor shall provide to the Purchaser, for each site, a Site Installation Specification (SIS) documentation with information as stipulated below.
- 3.7.2. The SIS document is a very detailed and upgraded document prepared based on Site Survey Report (SSR) and Site Preparation Data Package (SPDP) as appropriate SOW Section 12.
- 3.7.3. The Contractor shall deliver the SIS to the Purchaser in a First Draft form at EDC + 36 weeks as well as installation drawings, specifications and standards that he intends to employ during production and installation. The Final Draft of the SIS shall be delivered to the Purchaser at EDC + 44 weeks. Before delivery of the Final Draft version the first draft version of the SIS is to be reviewed and discussed as laid out below paragraphs.
- 3.7.4. The Purchaser will need three (3) weeks for review of the SIS package and to send the comments to the Contractor. The Contractor shall prepare and submit final draft SIS two weeks after receiving Purchaser's comments. This Final Draft SIS shall be detailed enough to allow assessment of the magnitude of site installation works to be performed by the Contractor at each site.
- 3.7.5. Upon review by the Purchaser of the Final Draft SIS, the Purchaser will co-ordinate a meeting, with the participation of the Contractor at EDC + 44 weeks, in order to provide comments on the Final Draft SIS. This meeting may coincide with a PPM. Agreed site availability dates will be recorded at that meeting.
- 3.7.6. After this meeting, an updated and complete version of the final SIS shall be provided (if required) by the Contractor in one week for approval. Parties will aim at finalising the site facilities requirements so that each site will be ready before delivery of the BCA Replacement system equipment to the site.
- 3.7.7. Approval of the SIS by the Purchaser in no way relieves the Contractor of his responsibilities to achieve the contractual and technical requirements of this Contract.

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- 3.7.8. The schedule for submission of the draft and approved SIS shall be incorporated in the PIP.
- 3.7.9. The Contractor shall provide for each site a complete SIS with updated "As Designed" drawings of how all of the major assemblies of the Purchaser/Contractor supplied equipment are to be physically installed and mechanically/electrically integrated.
- 3.7.10. The SIS documentation, as a minimum – but not limited to, shall consist of:
- a. All applicable floor and wall plans to include cable penetrations, and routing;
 - b. Physical details of all equipment, apparatus and devices;
 - c. Location plans with complete details of all cross-connection frames and patch panels;
 - d. Location plans of all ancillary equipment, terminations and/or connections;
 - e. Physical details of all cable racking, cable runs and cable routing with length, cable numbers and cable functions to include as appropriate all connections, connectors and sockets;
 - f. Details covering all wiring termination points including wire numbers and colour coding, if applicable;
 - g. The functions of all inter-connecting cables with their codes, colour code and the function of each separate conductor;
 - h. The physical details covering all cable trays and ducts for inter-communication equipment being part of this contract;
 - i. The list and layout of equipment as well as facing of cabinets to be installed including functional description of each component;
 - j. Site layout, System/equipment site installation plans and programme;
 - k. The implementation structure, responsibilities and management control of sub-contractor;
 - l. Identification of interfaces throughout the system to ensure interface compatibility as well as interfaces with communications infrastructure, power supply, cooling system and fire extinguishing system.

SECTION 4 SYSTEM DESIGN AND ENGINEERING

4.1. General

- 4.1.1. The contractor shall take into account the following reference documentation for his implementation. Other reference documentation regarding communication system design was mentioned in respective annexes:
- a. SECAN Doctrine & Information Publications (SDIP) – 28/1 (2009 December) NATO Zoning Procedures;
 - b. SDIP 29/1 (2011 January) – Facility Design Criteria and Installation of Equipment for the Processing of Classified Information;
 - c. SDIP 31/2 (2011 March) – Instructions for the Control and Safeguarding of NATO COMSEC Materials for Non-NATO Nations and International Organizations (NNN/IO);
 - d. STANAG 4370 (Environmental testing and associated Allied Environmental Conditions Test Publications (AECTP));
 - e. STANAG 7201 (The Human Engineering Test and Evaluation Procedures for systems, equipment and facilities);
 - f. STANAG 4133 (Method of specifying electrical power supplies: standard types of electrical power);
 - g. IEC-60364, Part 4, Chapter 41 (Electrical installations of buildings, Protection for safety, Protection against electric shock);
 - h. IEC 332 (Tests on electric and optical fibre cables under fire conditions);
 - i. IEC 1034 (Measurement of smoke density of cables burning under defined conditions);
 - j. ASTM E 662 (Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials);
 - k. MIL-STD-454 (Standard of Workmanship);
 - l. MIL-STD-1472D (Consoles/Workpositions);
 - m. MIL-STD-461-F (Electromagnetic Interference);
 - n. MIL-STD- 882E (System Safety).

- 4.1.2. The Contractor shall implement a system engineering programme that shall be a continuing function throughout the duration of the Contract in order to provide technical integration and co-ordination of design, fabrication, installation and test activities.
- 4.1.3. The system engineering programme shall include:
 - a. Compatibility of hardware and software;
 - b. The justification for function and performance allocations to various sub-systems and equipment to achieve overall system requirements;
 - c. Methodology for identification and resolution of technical problem areas that may develop during design, fabrication, installation and testing.

4.2. System Engineering and Design Plan (SEDP)

- 4.2.1. The Contractor shall provide, in accordance with the PIP, a System Engineering and Design Plan (SEDP) that shall establish and define the system engineering programme.
- 4.2.2. The plan shall include:
 - a. Hardware and software functional description;
 - b. Development and preparation of detailed equipment design specifications in line with the technical approach appropriate to fulfil the Purchaser's performance requirements;
 - c. Equipment performance calculations;
 - d. The description of the hardware, software and mechanical integration of assemblies, sub-assemblies and components into a coherent system;
 - e. Identification of interfaces throughout the system to ensure interface compatibility and interface control;
 - f. Development and preparation of detailed engineering drawings;
 - g. Technical reviews and reports;
 - h. Co-ordination with fabrication, installation and testing activities;
 - i. System Safety Engineering plan;
 - i. System Safety Hazard Analysis Report;
 - ii. Environmental and Safety Requirements;

- j. Installation Engineering Plan.

4.3. System Safety Engineering Plan (SSEP)

- 4.3.1. The Contractor shall apply engineering principles, criteria, and techniques to identify and eliminate safety hazards in the BCA Replacement systems in accordance with Military Standards (MIL-STD)-882E.
- 4.3.2. The Contractor shall design and/or select all equipment on the basis of inherent safety features that protect not only the human operators and maintainers but also the equipment itself.
- 4.3.3. The Contractor shall establish a System Safety Programme in accordance with "MIL-STD-882E, Section 4", to fulfil the safety requirements of the Contract.
- 4.3.4. The Contractor shall provide, as part of the SEDP, a System Safety Engineering Plan (SSEP) in accordance with MIL-STD-882E.
 - a. The Contractor shall describe his risk assessment method in the SSEP.
 - b. The Contractor shall document in his SSEP the procedures to control design, selection, procurement and manufacture of parts and materials. Revisions to the SSEP shall incorporate Purchaser-agreed changes, additions or deletions that have evolved during the conduct of the Programme.
- 4.3.5. Safety verification shall be conducted at each site prior to each ISAT to ensure compliance with the SSEP. The safety verification shall verify the safety requirements for all types of hazards not eliminated by design. The Contractor shall document the safety verification process in the SSEP. The Contractor's responsibilities shall be defined in the SSEP.
- 4.3.6. System Safety Engineering Plan shall also include System Safety Hazard Analysis Report (SSHAR) as mentioned in MIL-STD- 882E.
- 4.3.7. **Environmental and Safety Requirements:** System Safety Engineering Plan shall also define Environmental and Safety Requirements as defined at following sub-paragraphs:
 - a. Environmental requirements shall be implemented and verified by the Contractor in accordance with National laws and regulations;

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- b. The Contractor is obliged to comply with the national legislation concerning job accidents, incident prevention and hygiene at work. The Contractor is also obliged to make legal arrangements for protection of the life and security of all the personnel and to guarantee medical assistance whenever necessary due to job accidents. The same legal arrangements shall be applied to sub-contractor personnel under Contractor's responsibility;
- c. Health and Safety Hazards: The physical presence, operation and maintenance of the system shall pose no health or safety hazards to personnel;
- d. Carcinogenic and Radio-active Materials, Mercury: Materials containing known carcinogenic substances, radio-active materials or mercury shall only be used with the prior authorisation of the Purchaser with the exception of Radium that is not to be used to achieve self-luminosity;
- e. Hazard Warning Labels: Equipment warning labels shall be attached wherever there is any potential electrical, chemical, electromagnetic radiation or heat hazard or a potential hazard caused by human contact with materials, particularly when removal of covers will expose the hazard.
- f. Production of Toxic or Corrosive Fumes: Materials used, under the specified environmental and service conditions or as a result of heating due to conflagration, shall not liberate:
 - i. gases that combine with the atmosphere to form an acid or corrosive alkali,
 - ii. toxic or corrosive fumes that would be detrimental to the performance of the equipment or health of personnel,
 - iii. gases that will produce an explosive atmosphere,
- g. Asbestos Materials: Equipment shall not contain any asbestos material;
- h. Glass Fibre Materials: Glass fibre materials shall not be used as the outer surface or covering on cables, wire or other items where they may cause skin irritation to operating personnel;

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- i. Moving Part Protection: Any rotating or other moving part such as ventilators, blowers, drive belts etc., shall be shielded or protected adequately to prevent accidental contact by and injury to any personnel during operation and maintenance;
- j. Equipment Edges: Projecting and overhanging edges of equipment items shall be kept to a minimum. Edges and corners shall be rounded;
- k. Environmental Conditions Indoors, temperature, humidity: Equipment shall function without degradation under the environmental conditions as specified at SOW Annex-A paragraph 7.6;
- l. Noise Levels: Noise generated by the system in operation shall not exceed the levels specified in the local regulations or Environmental Noise Directive (2002/49/EC) whichever it is more restrictive for operational, maintenance areas.

	Maximum noise level in operational and maintenance areas	Maximum noise level in all other areas
Static Sites	55 dB(A)	75 dB (A)

4.4. Installation Engineering Plan:

- 4.4.1. The plan is required to define, explain and monitor the engineering method and procedures to be used by the contractor, and to present the system design in terms of work statement requirements. It provides the Purchaser with the opportunity to monitor and review the contractor's engineering efforts and to determine performance-cost trade-offs that may be required.
- 4.4.2. The Installation Engineering Plan shall contain the following:
 - a. The Installation Engineering Plan shall define the activity specific implementation structure, responsibilities, lines of control, subcontractor management structure;

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- b. Listing of Major and Minor Equipment to be installed. This listing shall contain a brief functional description of each item, its operating characteristics, and any abnormal criteria required for installation;
 - c. Engineering Implementation Schedules. These schedules shall cover milestone dates such as delivery of Contractor furnished equipment (CFE) and Purchaser furnished equipment (PFE); installation; number of required tests; interface with other systems;
 - d. Planned Layout. This section shall contain the criteria for the planned equipment layout, a block diagram to show signal flow, considerations of radio frequency interference and radiation effects, interface tie-ins, and considerations such as efficiency of the proposed configuration in terms of access requirements for operation, maintenance, installations, and removal. Included will be consideration of space between equipment walls ceilings, plus recommended distances between power and communication lines and/or red/black cable runs in accordance with the NATO TEMPEST protection practices. Reference shall be made to all applicable system drawings, and recommendations for maximum and/or minimum configurations;
 - e. Protocol of receipt of DHS (Delivery of Hardware on Site);
 - f. Checkout procedures.
- 4.4.3. Protocol of Receipt of the Delivery of HW on Site (DHS): This document constitutes proof of delivery by the Contractor of the hardware items. The HW delivered on site is verified against two lists: shipping list (check qty/identification of boxes/pallets) and items lists (once the boxes are open, and it is verified that the right qty of equipment has been delivered on site iaw As-Designed products lists). Damages or incidences are recorded in the Protocol of receipt. But this document does not constitute a formal handover of the ownership of the equipment.

4.4.4. Checkout procedure: This will cover the checklist to be inspected once the installation is done: Equipment is properly installed, labels properly affixed, grounding, equipment labels identification, power connection, all equipment is installed in the rack iaw the cabinet facing and the list of equipment. This checkout procedures can also be used prior to the Acceptance of the Installation/Integration.

4.5. Electromagnetic Interference and Compatibility (EMI/EMC)

4.5.1. With regards to Electromagnetic Compatibility (EMC), the BCA Replacement systems and their electronic equipment, during its lifetime, shall operate within its defined specifications. This shall be assured both in the military and in the civilian environment.

4.6. System Design

System Design shall include the following activities, documents and reports:

- 4.6.1. System Level Technical Reviews (System Requirements Review (SRR), Preliminary Design Review (PDR) and Critical Design Review (CDR)),
- a. The Contractor's system engineering programme shall include provision for three (3) Technical Reviews, the SRR, PDR and CDR. During technical reviews the Purchaser shall examine the functional requirements and the draft DDS. The schedule and planned conduct of the SRR, PDR and CDR and resulting report shall be included in the SEDP. The plan shall also identify and list specific CI(s) subject to technical reviews at sub-system and equipment levels. This listing shall be subject to update until such time as the system hardware and software baseline is established.
 - b. The technical reviews shall include three review meetings as described following:
 - i. SRR (at the date specified in Major Milestones Table);
 - ii. PDR Meeting (at the date specified in Major Milestones Table);
 - iii. CDR Meeting (at the date specified in Major Milestones Table);
 - c. For each technical review, the Contractor shall meet the following:

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- i. Provide well defined entry and exit criteria based on contract requirements;
 - ii. Demonstrate, wherever possible, the products under review;
 - iii. Substantiate decisions with technical details and associated rationale;
 - iv. Ensure appropriate participation including that of subcontractors, vendors, and suppliers;
 - v. Host the review at an appropriate Contractor facility (or facilities);
 - vi. Provide administrative support (e.g. resources, materials, meeting rooms, security);
 - vii. Provide agendas;
 - viii. Provide minutes that document the proceedings including key points, decisions, and issues with associated rationale; open and unresolved items with their closure requirements and responsibilities.
- d. Technical reviews shall be conducted to demonstrate progress in converging on viable traceable system requirements that are balanced with cost, schedule and risk.
- e. Technical Reviews shall confirm the total system detailed design approach (integrated composite of people, product and process solutions) satisfies the functional baseline, risks are mitigated with closure plans for remaining risks demonstrating the required progress and that the total system is ready for detailed design.
- f. The Contractor shall provide PDR Package Delivery three (3) weeks before the PDR meeting, to allow the Purchaser to review the documents.
- g. The Contractor shall finalize DDS after Critical Design Review meeting. The Contractor shall provide CDR Package Delivery three (3) weeks before the CDR meeting to allow the Purchaser to review the documents.
- h. Both technical reviews, PDR and CDR, shall consider all aspects of the design and cover all functional and performance requirements. It shall be included for each Configuration Item (CI) described below:

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- i. Allocated functional and performance requirements derived from overall requirements specified in the Contract.
- ii. CI specifications, this to include drawings, schematic diagrams, models, manuals and other data as appropriate and addressing as a minimum:
 - (1) functional specifications;
 - (2) performance specifications (technical and environmental) including RAMT requirements;
 - (3) interface requirement specifications;
 - (4) interface control document (ICD) specifications;
 - (5) physical layout (form and fit), including human engineering;
 - (6) sub-system integration requirements;
 - (7) current fabrication status and test results available to validate the design approach and achievement of relevant specification;
 - (8) Site specifications.
- i. In preparation and conduct of a technical review the Contractor shall:
 - i. Host and develop the agenda for the reviews;
 - ii. Provide the Purchaser with appropriate technical material including draft CI specifications in quantities specified in the SSS and in the format specified in SOW paragraph 13.3 below;
 - iii. Provide reports from and ensure participation by sub-contractors, vendors and suppliers as necessary;
 - iv. Organise and present briefings as necessary;
 - v. Provide appropriate facilities, administrative services and summary meeting reports;
 - vi. Provide schedule, test and design data and supporting analysis for the reviews;
 - vii. Provide appropriate technical personnel at the reviews;
 - viii. Provide the Purchaser with draft copies of the summary meeting reports in quantities specified in the SSS and in the format specified in SOW paragraph 13.3 below not later than two (2) weeks subsequent to the reviews.

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- j. The principle purpose of Purchaser participation is to approve the Contractor's design. Such approval is based upon Contractor supplied information and in no way relieves the Contractor's obligation to deliver a system wholly in conformity with the technical and environmental performance specifications contained in this Contract. Sufficient detailed information and test data shall be provided to assure the Purchaser that all functional and performance requirements have been achieved or have been modified to achievable limits without prejudice to contractual specifications.
- k. System Requirement Review (SRR) Meeting
 - i. The Contractor shall conduct a System Requirement Review (SRR) Meeting before PDR. This meeting shall be hosted by the Contractor. A formal agenda shall be provided by the Contractor, and at the end of the meeting formal minutes shall be produced.
 - ii. The objective of this review is to be sure the system requirements are understood adequately by the contractor and a draft functional (requirements) baseline is established.
 - iii. During the meeting; presentation of the results of System Requirements analysis shall be conducted (The result of requirements analysis shall be captured into Requirements Analysis Report (RAR)). In addition, Purchaser / Contractor common requirements understanding, common functional and system design understanding shall be achieved.
 - iv. SRR shall be conducted to demonstrate progress in converging on viable, traceable system requirements that are balanced with cost, schedule, and risk by confirming that:
 - (1) customer requirements (including environments, usage modes, and other pertinent factors) were analysed and translated into system-specific functional and performance requirements;
 - (2) technology validation and demonstration plans are complete and closure plans on technical demonstrations and maturations are achieving required progress;
 - (3) critical technologies for people, product, and process solutions have been identified and assessed.
- l. SRR Entry Conditions

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- i. All following relevant documentation have been delivered:
 - (1) Approved PIP Documentation,
 - (2) Draft Requirement Analysis Report (RAR),
(The Contractor shall present the results of this analysis (RAR) together with an early identification of inconsistencies, conflicts, and incompleteness, potential problems and/or risk areas at the System Requirements Review [SRR]).
- ii. Approved Agenda (SRR);
- m. SRR Exit Conditions
 - i. RAR has been formally submitted by Contractor and approved by the Purchaser;
 - ii. All actions items, as documented in the minutes of the SRR meeting, have been agreed by the Purchaser as closed;
 - iii. Overall Summary Schedule have been provided by Contractor;
 - iv. Technical risks have been assessed and minimised;
 - v. Minutes has been recorded and approved;
- n. PDR Entry Conditions
 - i. All following relevant documentation have been delivered:
 - (1) Approved Final PIP Documentation;
 - (2) Draft System & Subsystem Detailed Design Specifications (DDS);
 - (3) Requirement Analysis Report;
 - (4) Interface Requirement Specifications;
 - (5) As Designed Product Drawings and Associated Equipment Lists;
 - (6) Installation Engineering Plan;
 - (7) Site Activation Plan;
 - (8) Site specifications.
 - ii. The HW and SW has been proposed by the Contractor
 - iii. Approved Agenda (PDR)
- o. PDR Exit Conditions

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- i. The documents related to PDR reviews have been formally submitted by Contractor and approved by the Purchaser;
- ii. Site Preparation Data Package (SPDP) as defined in SOW Section 12 have been finalized and approved;
- iii. All actions items, as documented in the minutes of the PDR meeting, have been agreed by the Purchaser as closed;
- iv. The HW and SW for the site has been reviewed;
- v. Overall Summary Schedule have been provided by Contractor;
- vi. Technical risks have been assessed and minimised;
- vii. RAMT deliverables has been agreed;
- viii. Minutes has been recorded and approved;
- p. For PDR documentation, the Contractor shall deliver "Detailed Design Specifications (DDS)" in draft form including: equipment design specifications, engineering data and drawings, preliminary installation drawings as long as infrastructure requirements (power, cooling and civil works) and define the Configuration items including drivers/software adaptations, as compliant with SOW paragraph 4.6.2.
- q. For PDR documentation, the Contractor shall deliver "Requirement Analysis Report" as compliant with SOW paragraph 4.6.4.
- r. For PDR documentation, the Contractor shall deliver "Interface Requirement Specification" as compliant with SOW paragraph 4.6.3.
- s. For PDR documentation, the Contractor shall deliver "As Designed Product Drawings and Associated Equipment Lists" as compliant with SOW paragraph 4.6.5.
- t. For PDR documentation, the Contractor shall also deliver Installation Engineering Plan and Site Activation Plan, as compliant with SOW paragraph 4.6.6.
- u. CDR Entry Conditions
 - i. All exit objectives of the PDR have been met;

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- (1) All Documents related to the PDR have been commented, updated accordingly, delivered and approved by the Purchaser;
 - (2) System Design (As described in System & Subsystem Detailed Design Specifications Plan & Interface Requirement Specifications-IRS) is delivered and the CDRLs (Contractual Data Requirements Lists) are approved;
 - (3) All actions items, as documented in the minutes of the PDR meeting, have been agreed by the Purchaser as closed;
 - (4) The minutes of the PDR meeting have been approved;
- ii. All Documents related to CDR reviews have been submitted and these documents have been reviewed by NCI Agency;
 - iii. The HW and SW for the site has been proposed by the Contractor.;
 - iv. Approved Agenda (CDR);
- v. CDR Exit Conditions.
- i. Approvable documents related to CDR reviews have been formally submitted by Contractor and approved by NCI Agency;
 - ii. The HW and SW has been selected;
 - iii. All action items to CDR, as documented in the minutes of the CDR review meeting have been agreed by NCI Agency as closed;
 - iv. Overall Summary Schedule provided by Contractor;
 - v. Technical risks assessed and minimised;
 - vi. Revised PIP Documentation (if required);
 - vii. Minutes recorded and approved.

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- w. For CDR documentation, the Contractor shall also deliver Interface Control and Management document defining detailed interface requirements throughout the system and resolving methods to ensure interface compatibility, including system design, communications infrastructure and civil works (where required) related interface issues.
 - x. An output of the CDR shall be the CI specifications. The equipment covered by a CI specification shall be subject to configuration management once the specification has been approved. The Contractor shall provide the final version of CI specifications in quantities specified in SSS and in format specified in SOW paragraph 13.3 below to the Purchaser five (5) weeks after the CDR meeting.
- 4.6.2. System & Subsystem Detailed Design Specifications (DDS)
- a. The purpose of the DDS is to provide visibility for the Purchaser into the proposed system development and to provide documentation against that the Purchaser may evaluate progress, foresee difficulties and provide guidance and recommendations to protect its interests.
 - b. The Contractor shall deliver the DDS to the Purchaser in draft form as part of the Preliminary Design Review (PDR) and in a final form as part of the Critical Design Review (CDR) according to the SSS. The DDS shall encompass the areas set forth in PIP Section 2 in a refined and comprehensive manner, at least to the CI level.
 - c. The System & Subsystem DDS shall contain as a minimum (but not limited to):
 - i. Conformance Matrix linking Contract Requirements to details of the design specification;
 - ii. Presentation of detailed equipment and any civil works (as stipulated in section 12 Site Installation);
 - iii. Security design documentation;
 - iv. Equipment performance calculations;
 - v. Identification of interfaces throughout the system to ensure interface compatibility;

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- vi. Presentation of detailed engineering drawings including as required in the SOW, SOW Annex-A and Annex-B for each capability;
 - vii. Definition of the CI(s);
 - viii. An Interface diagram (detailed);
 - ix. Software licensing, support and warranty agreements;
 - x. Design for System Management and Configuration Tools including security considerations;
 - xi. The physical layout and operation principles of the BCA Replacement system;
 - xii. Proposed system topology, routing and transport;
 - xiii. All design constraints identified in the Detailed Design Specification Plan;
 - xiv. Detailed description of how Contractor's proposed system shall meet the functional requirements in the System Requirement Specifications (SOW Annex-A);
 - xv. Detailed description of the main design features of the interfaces with each relevant other system in the SRS in line with the associated design constraints identified in the SRS;
 - xvi. A list of equipment (Hardware and software) planned to be delivered;
- d. The Purchaser will review the document and provide its comments and observations in the Technical Reviews to be held according to the SSS.
 - e. The Contractor shall deliver the draft version of the DDS to the Purchaser not later than three (3) weeks prior to the PDR meeting.
 - f. The comments and observations provided by the Purchaser shall be incorporated by the Contractor into the DDS.

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- g. The Contractor shall deliver the final version of the DDS to the Purchaser not later than three (3) weeks prior to the CDR meeting. Where Purchaser comments and observations have not been included into the Final Document, the Contractor shall include a separate annex noting the exclusion of such comments and observations and providing a rationale for the exclusion.
 - h. It shall be noted that the DDS are the product of the Contractor. Review of the draft version and delivery of the final version does not imply acceptance of the detailed design by the Purchaser. It remains the sole responsibility of the Contractor to prove the design through the regime of testing set forth in the Contract and it shall be the sole responsibility of the Contractor in the event that the design proves deficient in terms of the Contract functional and/or performance requirements.
- 4.6.3. Interface Requirements Specification (IRS)
- a. The contractor shall prepare IRS document as part of Detailed Design Specification (DDS) documentation that specifies the interfaces among the HW and SW components of the system.
- 4.6.4. Requirement Analysis Report (RAR)
- a. The Contractor shall prepare a Requirement Analysis Report upon completion of System Requirements Review. The RAR shall describe the result of requirement analysis indicating the inconsistent, incomplete, inadequately detailed, redundant and non-feasible requirements. It shall also contain Contractor proposed changes and refinements.
- 4.6.5. "As Designed" Product Drawings and Associated Equipment List
- a. The Contractor shall prepare product drawings and associated equipment Lists provide engineering data to support competitive procurement and maintenance for hardware. These drawings represent the highest level of design disclosure.
- 4.6.6. Site Activation Plan
- a. The Site Activation Plan is designed to supply information on the conditions and actions necessary to ensure a successful activation or operational transition of any new system.
 - b. The content of the Site Activation Plan shall be provided in the contractor's format and shall include:
 - i. a set of conditions that must exist prior to start of activation;

- ii. a detailed priority listing of actions/events that must occur for a successful activation;
- iii. the responsibilities of the contractor;
- iv. the responsibilities of the purchaser;
- v. time phasing of actions/events.

4.7. Workmanship, Labelling and Cabling

4.7.1. MIL-STD-454 Requirement 9 shall be applied for Standard of Workmanship.

4.7.2. Weight Labelling: Items weighing more than the one-person values in table "Weight Limits" shall be prominently labelled with the weight of the object and the lift limitation, e.g. two-person lift, three-person lift, mechanical lift, etc,

Handling Function		Weight Limit (kg)
a.	Lift object from the floor and place it on a surface not greater than 1.5 m above the floor.	16
b.	Lift an object from the floor and place it on a surface not greater than 0.9 m above the floor.	20
c.	Carry an object up to 10 m.	19

4.7.3. European Community EMI Conformity for COTS Items: Each COTS item, including cables, shall bear the European Community (EC) CE conformity marking and the Contractor shall present to the Purchaser a copy of the relevant Manufacturer's Declaration of Conformity, i.a.w the EC Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

4.7.4. Cables/Connectors:

- a. Power cables shall be Low Smoke Zero Halogen (LSZH) cables. All the other cables are highly recommended to be LSZH cables.

SECTION 5 SYSTEM SECURITY REQUIREMENTS

5.1. Purpose

This section describes the minimum security requirements for the BCA Replacement system project, in accordance with the current NATO and National Security Policies concerning the protection of NATO classified information and National classified information.

5.2. References

- 5.2.1. NATO Security Policies are contained in the following documents for BCA Replacement project.
- a. C-M(2002)49 (2002-June-17) – Security Within the North Atlantic Treaty Organisation
 - b. AC/35-D/2000-Rev7 (2013-Jan-07) Directive on Personnel Security
 - c. AC/35-D/2001-Rev2 (2008-Jan-07) Directive on Physical Security
 - d. AC/35-D/1030 (2005-May-20) – Guidelines on Physical Security
 - e. AC/35-D/2004-REV3 (2013-Nov-15) – Primary Directive on CIS Security
 - f. AC/35-D/2002-Rev4 (2012-Jan-17) Directive on the Security of Information
 - g. C-M(2008)0113 (2008-Nov-27) The Primary Directive on Information Management
 - h. AC/35-D/1021-Rev 3 (2012-Jan-31) Guidelines for the Security Approval or Security Accreditation of Communication and Information Systems (CIS)
 - i. AC/35-D/1017-Rev2 (2003-Feb-26) Guidelines for Security Risk Assessment and Risk Management. of CIS
 - j. AC/35-D/1014-Rev3 (2012-Jan-31) Guidelines for the Structure and Content of Security Operating Procedures (SecOps) for CIS
 - k. AC/35-D/1015-Rev3 (2012-Jan-31) Guidelines for the Development of Security Requirements Statements (SRSs)
 - l. AC/35-D/1019-Rev1 (2008-Dec-12) Guidelines for the Security Evaluation and Certification of Communication and Information Systems (CIS)

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- m. AC/322-D/0030-Rev5 (2011-Feb-23) INFOSEC Technical and Implementation Directive for the Interconnection of Communication and Information Systems CIS
- n. AC/322-D/0049 (2002-Apr-29) Directive for Transmission Security
- o. AC/322-D/0047-Rev2 (2009-Mar-11) INFOSEC Technical and Implementation Directive on Cryptographic Security & Cryptographic Mechanisms
- p. AC/322-D(2007)0036 (2007-July-12) Technical and Implementation Directive on Emission Security
- q. AC/322-D(2005)0031 (2005 June 20) – INFOSEC Technical & Implementation Directive for the Protection of the Confidentiality of NATO Information within non-NATO Nation Systems
- r. AC/322-D/0048-REV2 (2011-Dec-09) Technical and Implementation Directive on Computer and Local Area Network (LAN) Security
- s. NATO Computer Incident Response Capability (NCIRC) security settings for Windows operating systems
- t. AC/35-D/2005-Rev2 (2010-Oct-18) INFOSEC Management Directive for communication and information systems

5.3. BCA Replacement Systems Security Requirements

- 5.3.1. General Classification Requirements for BCA Replacement documentation:
 - a. The BCA Replacement Security mode of Operation will be NATO SECRET all data shall be protected to the accorded NATO classification.
- 5.3.2. BCA Replacement Security Accreditation
 - a. The overall BCA Replacement systems shall be subject to security accreditation. Ultimate aim is to achieve a 'Security Accreditation' (SA) for the BCA Replacement systems.
- 5.3.3. Security Evaluation
 - a. All software shall be selected from NATO approved Fielded Product List (AFPL) for NS networks. All information assurance products shall be selected from NATO Information Assurance Product Catalogue (NIAPC) with 'green' evaluation scheme.
- 5.3.4. Security Requirements

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- a. The BCA Replacement systems shall as a minimum have implemented the security mechanisms as defined in the NATO Security Policy and supporting directives and guidelines mentioned in SOW 0 above para 5.2.1 References (a through i), INFOSEC Technical and Implementation directives mentioned in SOW 0 above paragraph 5.2.1 References (j through n) and BCA Replacement Community security documents to be drafted as part of the security accreditation process.
- b. It shall be demonstrated that the BCA Replacement system shall possess all the security features stated in reference documents at SOW0 above paragraph 5.2.1.
- c. The BCA Replacement system shall apply C2 protective mechanism of Windows Operating System identical to the implementation used at the operational site following NCIRC security settings for Windows operating systems as set forth in SOW paragraph 5.2.1.s.

5.3.5. BCA Replacement Security Testing and Verification

- a. It shall be demonstrated and shown that security mechanisms of the BCA Replacement system work as claimed in the System documentation. The demonstration shall be done to illustrate the mechanism used to prevent that an unauthorized user cannot bypass or otherwise defeat the security protection mechanisms.

5.3.6. Security Deliverables

- a. The Security Accreditation Support package shall be integrated into the documentation delivered for FSA.

5.3.7. Crypto

- a. Crypto (KWT/KWR-46) is already utilised with the current BCA system and this will remain for the replacement BCA.

5.4. Accreditation process

- 5.4.1. The Contractor shall produce a Security Accreditation Plan (SAP) for the accreditation of the BCA Replacement which defines the documents to be produced and details the roles and responsibilities of each entity involved in the security accreditation. The Security Accreditation Plan shall be reviewed and approved by the Security Accreditation Authority.
- 5.4.2. The Contractor shall refer to the SAP for details about the Security Accreditation process and shall apply the security accreditation process described in the SAP.

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- 5.4.3. The Contractor shall ensure that the texts of the security documentation shall not refer to the System Design Documentation Package for further information; each security document shall be self-contained and include all relevant information taken from the System Design Documentation Package as required to understand its contents.
- 5.4.4. The Contractor shall produce the following documents to support the security accreditation of the BCA Replacement:
- a. BCA Replacement System Description;
 - b. BCA Replacement Security Accreditation Plan (SAP);
 - c. BCA Replacement Security Risk Assessment (SRA);
 - d. BCA Replacement System Specific Security Requirements Statement (SSRS);
 - e. BCA Replacement Security Operating Procedures (SecOPs);
 - f. BCA Replacement Security Test and Verification Plan (STVP);
 - g. BCA Replacement System Interconnection Security Requirements Statement (SISRS);
 - h. BCA Replacement Site Security Compliance Statement (SSCS);
- 5.4.5. System Description
- a. The system description shall at a minimum include the following information:
 - i. Detailed technical description showing the main components and the high level information flows;
 - ii. Description of all internal and external interconnections of the system;
 - iii. List of HW and software components used, and the physical locations where they are deployed;
 - iv. High level overview of the security mechanism implemented;
- 5.4.6. Security Accreditation Plan (SAP)
- a. The contractor shall provide a SAP to provide the details of the accreditation process of the BCA Replacement;
 - b. The contractor shall produce the SAP under the close supervision and guidance of NCI Agency SRA specialists;
 - c. The SAP shall be presented to the NSAB for its approval. Further security accreditation activities will be dependent on the decisions of the NSAB regarding the SAP;

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- d. The contractor will be responsible to implement the activities described in the SAP as approved by the NSAB.
- 5.4.7. Security Risk Assessments (SRA)
- a. The BCA Replacement Security Risk Assessments (SRAs) shall conform to SOW paragraph 5.2.1;
 - b. The Contractor shall use the SRA application "PILAR" with NATO profile for producing the BCA Replacement Security Risk Assessment;
 - c. The Contractor shall use the NATO template "SRA Report (PILAR) Template" to document the results of the SRAs;
 - d. Based on the results of the SRAs, the Contractor shall identify areas of the BCA Replacement requiring safeguards and countermeasures to comply with NATO Security Policy. The decision on specific security mechanisms will be based on evidence and results produced by the Security Risk Assessment;
 - e. The contractor shall produce the SRAs under the close supervision and guidance of NCI Agency SRA specialists;
 - f. The produced SRAs shall be submitted to the NCI Agency for review before submission to NSAB for approval;
 - g. The Contractor shall take into account any comments from the reviewers and NSAB and shall update the document as many times as necessary in order to gain NSAB approval of the BCA Replacement SRAs.
- 5.4.8. System Security Requirements Statements (SSRS)
- a. The NSAB has directed that the System-specific Security Requirements Statements (SSRSes) shall define the security requirements of the BCA Replacement.
 - b. Based on the results of the BCA Replacement Platform SRAs, the contractor shall produce a System-specific Security Requirements Statement (SSRS) to include the minimum levels of security deemed necessary to counter the risks identified in the BCA Replacement SRAs.
 - c. Each security requirement identified in the SSRS shall have a unique identifier which is crossed referenced to the security mechanism addressing the requirement.
 - d. The Contractor shall identify whether each security mechanism is mandatory or recommended.

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- e. The Contractor shall produce the BCA Replacement SSRS using the NATO SSRS Template and following the guidance in NATO document.
 - f. The SSRS shall be submitted to the NCI Agency for review before submission to NSAB for approval.
 - g. The Contractor shall take into account any comments from the reviewers and NSAB and shall update the documents as many times as necessary in order to gain NSAB approval of the BCA Replacement Platform SSRSES.
- 5.4.9. Security Operating Procedures (SecOPs)
- a. The Contractor shall produce the generic Security Operating Procedures (SecOPs) for the BCA Replacement Platform system according to the guidelines stated in NATO policy documents.
 - b. The Contractor produced generic Security Operating Procedures (SecOPs) shall be submitted to the NCI Agency for review before submission to the NSAB for approval.
 - c. The Contractor shall take into account any comments from the reviewers and NSAB and shall update the generic SecOPs documents as many times as necessary in order to gain NSAB approval of the BCA Replacement generic SecOPs.
 - d. The Contractor shall adapt the NSAB approved generic SecOPs to the requirements of each Tier 1, Tier 2 and Tier 3 BCA Replacement site. The adapted BCA Replacement SecOPs for a particular site is to be submitted to the site's local SAA for approval.
 - e. The Contractor shall take into account any comments from the reviewers and security staff and shall update the localised SecOPs documents as many times as necessary in order to gain approval by the local SAA of the particular BCA Replacement localised SecOPs.
- 5.4.10. Security Test & Verification Plans (STVP)
- a. The contractor shall produce the Security Test & Verification Plans (STVP) for the BCA Replacement using the NATO template "Secure AIS_SVTP_Template.
 - b. The STVPs shall define the complete sequence of steps to be followed to prove that the security mechanisms designed into the BCA Replacement enforce the security requirements identified in the BCA Replacement SRAs.

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- c. Each and every test shall be cross referenced to the SRAs-identified security requirement which it addresses and the security mechanisms in the BCA Replacement SSRS documents which it tests.
 - d. The STVPs shall test all security mechanisms of the BCA Replacement.
 - e. The Contractor produced STVPs shall be submitted to the NCI Agency for review before submission to NSAB for approval.
 - f. The Contractor shall take into account any comments from the reviewers and NSAB and shall update the STVP documents as many times as necessary in order to gain NSAB approval of the BCA Replacement Platform STVPs.
 - g. The Contractor shall support the execution of the STVPs on site and provide a Security Test and Validation Report per site.
- 5.4.11. System Interconnection Security (SISRS)
- a. The Contractor shall produce BCA Replacement System Interconnection Security Requirement Statement (SISRS) for each of the interconnections between security domains served by BCA Replacement. This includes for interconnections to the NS WAN.
 - b. To produce each of the SISRS documents, the Contractor shall use the NATO SISRS template.
 - c. The contractor shall submit each of the SISRS documents to the NCI Agency for review before submission to the NSAB for approval.
 - d. The Contractor shall take into account any comments from the reviewers and NSAB and shall update each SISRS document as many times as necessary in order to gain NSAB approval of the SISRS documents.
- 5.4.12. Site Security Compliance Statement (SSCS)
- a. The Contractor shall produce the generic "Site Security Compliance Statement (SSCS)" for the BCA Replacement using the NATO approved "Site Security Compliance Statement Template".
 - b. The Contractor produced SSCS shall be submitted to the NCI Agency for review before submission to NSAB for approval.

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- c. The Contractor shall take into account any comments from the reviewers and NSAB and shall update the generic SSCS document as many times as necessary in order to gain NSAB approval of the BCA Replacement Platform generic SSCS.
- d. The Contractor shall support the completion of the SSCS on site.

5.5. Software Approval Process

- 5.5.1. Any software to be deployed on NATO networks and in NATO operational environments is subject to security screening and approval by NATO. In particular, the software must be included in the NATO operational baseline as described in the NATO Approved Fielded Product List (AFPL) for the particular network on which the software is to be deployed.
- 5.5.2. The Contractor shall be responsible for the successful listing of each of the BCA replacement software components on the NATO AFPL for the networks on which the BCA replacement component is to be deployed.
- 5.5.3. The software approval process is divided into multiple complementary activities as follows:
 - a. Configuration Change Proposal (CCP). The software and supporting documentation to be approved will be submitted to the NCI Agency Configuration Control Board for approval;
 - b. Software Security and Technical Tests (i.e. vulnerability assessment and penetration tests). The software itself and the software documentation is subject to in-depth security technical assessment by NATO;
 - c. IV&V testing by NCIA IV&V Service Line. The Product Baseline is subject to independent testing (e.g. compatibility testing, interoperability testing, network and performance testing, usability testing, reliability testing, functional testing).
- 5.5.4. The Contractor shall support the software approval process and tests by delivering the Software approval documentation Package and ensuring the Contractor's technical staff are present during and actively participate in the preparation and execution of test sessions.

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- 5.5.5. As part of IV&V testing, interoperability tests shall be performed between the BCA replacement systems and other applications as requested by the Purchaser. These applications will be defined by the Purchaser in correspondence to the Contractor concerning the System Test Plan.
- 5.5.6. The Purchaser will provide the Contractor with a test report at the end of each test session. If not successful the test report will state the reason for failure and remedial actions will be indicated.
- 5.5.7. The Contractor shall update the Product Baseline as a result of the above-described test sessions.
- 5.5.8. The successful completion of testing shall be the Contractor's responsibility and any additional testing session required, as a direct or indirect result of the test failure shall be borne by the Contractor.

5.6. Information Exchange

- 5.6.1. Soft Copies of Documentation and information with "NATO RESTRICTED" and under classification level shall be exchanged between the Contractor and the Purchaser on Public Internet using "REACH" capability, ensuring that these files are secured using protected workstations.
- 5.6.2. The contractor shall procure at least two REACH licences from the NCI Agency in order to provide secure connection on Public Internet.

5.7. Resourcing

- 5.7.1. The project manager and all personnel working on BCA Replacement project at Contractor/Purchaser premises/sites shall be security cleared for "NATO SECRET" level.
- 5.7.2. Requests for visits shall be notified in writing and coordinated in advance with the NCI Agency. All visiting personnel shall comply with the security regulations of NATO. Minimum 25 working days is required for notification.
- 5.7.3. The Purchaser reserves the right to request a Replacement of personnel based on contract performance reasons.

5.8. Responsibilities

- 5.8.1. The Contractor shall be responsible to develop and implement the BCA Replacement system in accordance with the IA requirements and provide all required security accreditation documentation for BCA Replacement systems and support the Purchaser during the overall accreditation of the whole BCA Replacement systems. The Contractor shall perform all activities as stated in the approved security documents complying with entire section 5 of SOW to achieve Interim Security Accreditation (ISA) before SAT and the Full BCA Replacement System Security Accreditation before FSA in cooperation with responsible SAAs.
- 5.8.2. The Contractor shall provide the results of BCA Replacement system Security Testing and Verification within 2 (two) weeks of the tests.
- 5.8.3. The Contractor shall provide a Security Test & Verification Plan (STVP) that shall be used as an integral part of the overall BCA Replacement system Testing Activities. The STVP shall address in well-defined scenarios, all security functions required and implemented and shall demonstrate the implemented level of Security Functionality and Assurance in accordance with the Contract requirements and the corresponding NATO directives as stipulated in SOW paragraph 5.2.1.i.

SECTION 6 QUALITY ASSURANCE (QA)

6.1. Introduction

- 6.1.1. The following reference documentation applies for QA purposes:
- a. Allied Quality Assurance Publication (AQAP) -2000;
 - b. AQAP – 2110;
 - c. AQAP –2210;
 - d. AQAP – 2070;
 - e. AQAP 160 - NATO Integrated Quality Requirements for Software Throughout The Life Cycle;
 - f. AQAP - 169 NATO Guidance on the use of AQAP-160;
 - g. ISO/IEC 12207 – Software Life Cycle Process;
 - h. ISO/IEC 15288 – Systems and Software Engineering – System Life Cycle Process;
 - i. AQAP 2009 - NATO Guidance on the use of the AQAP-2000 Series;
 - j. AQAP-2000 Series;
 - k. AQAP 2050 - NATO Project Assessment Model;
 - l. AQAP 2105 - NATO Requirements for Deliverable Quality Plans;
 - m. AQAP 2310 - NATO Quality Management System Requirements for Aviation, Space And Defence Suppliers;
 - n. International Standards 9000 Series;
 - o. International Standard 10012-1 (ISO-10012-1);
 - p. Applicable NATO Standardisation Agreements;
 - q. STANAG 4107 ;
 - r. STANAG 4427.

6.2. Quality Control System

- 6.2.1. The Purchaser will apply STANAG 4107 and AQAP(s) (a-m) specified above that the Contractor shall herewith accept and agree to.
- 6.2.2. The Contractor shall establish, document and maintain an effective QC System in accordance with SOW 0 above Reference (a) and/or equivalent ISO 9000 Series Standards throughout the life-cycle of the contract.

6.2.3. The Purchaser may delegate the Quality Assurance to the appropriate Government Quality Assurance Authority (GQAA) in accordance with STANAG 4107. The GQAA, when accepting the STANAG 4107 Request for GQAA Services, appoints his QA Representative(s) (QAR). The Purchaser, through their own Quality Assurance, however, will retain the overall supervisory and liaison authority concerning all QA/QC matters, and for this purpose will use their own QA Personnel. The term "National QAR" (NQAR) shall apply to any of the Purchaser appointed QARs, whether nominated by the GQAA or by Purchaser QA. During the entire contract implementation, the NQAR(s) within their own rights, defined in the contract applicable AQAPs, shall assure the Contractor's and Sub-Contractor's compliance with all contractual requirement.

6.3. Quality Assurance (QA) Programme

6.3.1. The Contractor shall be responsible for the control of quality of all deliverables and associated Contractual products throughout the life-cycle of the Contract.

6.3.2. The QA Programme shall ensure that procedures are developed, implemented and maintained to adequately control the development, design, production, testing and configuration of all deliverables. The QA Programme shall be described in the QA Plan as outlined below. The programme is subject to disapproval by the Purchaser, or its delegated representative(s), whenever it does not meet the QA requirements. It shall be subject to review for adequacy, compliance and effectiveness. The overall QA Programme shall adhere to the provisions of SOW 0 above paragraph 6.1.1.a and be consistent with the project philosophy of integrating COTS hardware and software as applicable.

6.4. Applicability

- 6.4.1. The QA programme shall apply to all hardware, software and documentation being developed, designed, acquired, integrated, maintained, or used under the Contract. This includes non-deliverable test and support hardware and software. Firmware shall be controlled as software. The QA programme shall also apply to civil works throughout the life cycle of delivered infrastructure (with associated earth, electrical and ducting works etc.) and systems (such as SB and NB PSS, HVAC, grounding etc.). The QA programme is also applicable to the whole package of documents, designs, plans and drawings pertaining Civil Works at any given stage of the project.

6.5. Organisation

- 6.5.1. The Contractor shall designate at least one person to perform the QA function for this project. Contractor personnel comprising the QA organisation shall have sufficient responsibility, authority, organisational freedom and independence to review and evaluate activities, identify problems and initiate or recommend appropriate corrective action.
- 6.5.2. Personnel performing QA functions shall have specific documented definitions of their assigned duties. In no case shall the Contractor QA personnel performing QA functions be the same personnel responsible for performing other tasks that are reviewed by QA.
- 6.5.3. Contractor QA personnel shall participate in the early planning and development stages to ensure that attributes of good quality for life-cycle procurement are specified in programme plans, standards, specifications and documentation. After establishment of attributes, controls and procedures, Contractor QA personnel shall ensure that all elements of the QA Programme are properly executed, including inspections, tests, analysis, reviews and audits.
- 6.5.4. A Contractor QA person shall be designated as the Contractor's QA Management Representative and point of contact to interface with, and the resolution of quality matters raised by the Purchaser or his delegated National Quality Assurance Representative (NQAR) and identified in the Quality Plan.

6.6. QA PLAN

- 6.6.1. The Contractor shall provide a QA Plan to the Purchaser in accordance with the requirements of the above mentioned AQAPs, and as amended herein. The QA Plan shall be submitted to the Purchaser for review as part of the PIP in accordance with the SSS. The QA Plan shall be structured as a living document subject to revision /update, as required.
- 6.6.2. The QA Plan shall reference, or document, and explain the Contractor's QA procedures for analysis, software support, development, design, production, installation, configuration management, control of Purchaser furnished property, documentation, records, programming standards and coding conventions, library controls, reviews and audits, testing, corrective action and certification as specifically related to this project.
- 6.6.3. The QA Plan shall be compatible and consistent with all other plans, specifications, standards, documents and schedules, that are utilised under this Contract. All Contractor procedures referenced in the QA Plan shall either be submitted with the plan, or described in the plan and made available for review by the Purchaser upon demand.

6.7. Corrective Actions

- 6.7.1. The Contractor's corrective action system shall ensure prompt detection, documentation and correction of problems and deficiencies. The corrective action system shall track all reported and recorded problems and deficiencies until their closure and clearance.

6.8. Sub-Contractor Control

- 6.8.1. In the event that the Contractor sub-contracts any of the work contained in this Contract, the Purchaser reserves the right to perform reviews and audits at any of the Sub-Contractor(s) facilities. Such reviews and audits shall not be used by Contractor as evidence of effective control of subcontractor's quality. The Contractor shall conduct periodic audits of the subcontractors.

6.9. Certificates of Conformity (CoC)

- 6.9.1. When satisfied that the products and/or services provided by the Contractor are in conformance with the terms of this contract, a Certificate of Conformity (CoC) per SOW paragraph 6.1.1.q Annex B shall be countersigned and stamped by the cognisant NQAR(s). The preparation of the CoC(s) shall be the responsibility of the Contractor.
- 6.9.2. CoC(s) shall be required for all quantities contained in each contract line item. The Contractor shall submit copies of the CoC(s) to the Purchaser in quantities specified in SSS on delivery of the equipment.

SECTION 7 CONFIGURATION MANAGEMENT (CM)

7.1. General

- 7.1.1. This Section addresses the requirements relating to the CM.
- 7.1.2. The Contractor shall be responsible for establishing and maintaining an effective CM organisation to implement the CM programme in accordance with STANAG 4427 and managing the CM functions (configuration identification and documentation, configuration control, configuration status accounting, configuration audits).
- 7.1.3. The Contractor shall be responsible for the application of all necessary CM procedures, in accordance with the requirement and guidance stated below, throughout the life of the contract.
- 7.1.4. The following reference documentation applies for CM purposes:
 - a. Allied Configuration Management Publication (ACMP) – 1 NATO Requirements for the Preparation of Configuration Management Plans;
 - b. ACMP – 2 NATO Requirements for Configuration Identification.
 - c. ACMP – 3 NATO Requirements for Configuration Control, Engineering Changes, Deviations and Waivers;
 - d. ACMP – 4 NATO Requirements for Configuration Status Accounting and Configuration Data Management;
 - e. ACMP – 5 NATO Requirements for Configuration Audits;
 - f. ACMP – 6 NATO Configuration Management Terms and Definitions;
 - g. ACMP – 7 NATO Configuration Management Guidance on the Application of ACMP 1-6;
 - h. STANAG 4427.

7.2. Deliverable Version Numbering

- 7.2.1. The Contractor shall propose a deliverable version control system as part of the CM Plan detailed below. This version control system shall allow for the unique identification of all changes to the deliverables, no matter how minor the change. The version control system shall also identify a difference between major and minor changes. Any doubt as to whether a revision constitutes a major or minor change shall be referred to the Purchaser for decision.

7.3. Configuration Management Plan

- 7.3.1. The Contractor shall provide a CM Plan in accordance with SOW paragraph 7.1.4.a tailored to the requirements of the proposed technical solution. The CM Plan shall be periodically updated as required. The CM Plan shall be part of the PIP Section 4.
- 7.3.2. In producing the CM Plan, the Contractor shall define the organisation and procedures used to configuration manage the functional and physical characteristics of CI(s), including interfaces and configuration identification documents. He shall ensure that all required elements of CM are applied in such a manner as to provide a comprehensive CM programme.
- 7.3.3. The CM Plan shall address all disciplines within this SOW paragraph 7.1.4.a and shall as a minimum include, but not be limited to the following CM Plan Sections:
 - a. Introduction;
 - b. Organisation;
 - c. Configuration Identification and Documentation (CID);
 - d. Configuration Control;
 - e. Configuration Status accounting;
 - f. Configuration Audits;
 - g. Management tools/Interface management.

7.4. Configuration Identification and Documentation (CID)

- 7.4.1. The Contractor shall establish a configuration identification system. The system shall identify all documents necessary to provide a full technical description of the characteristics of the Hardware and Software CID(s) that require control at the time each baseline is established and shall include the relevant deliverables in the contract.
- 7.4.2. The Contractor shall propose appropriate CID(s) in the CM Plan including an explanation of the rationale and criteria used in the selection process that shall be based on the criteria for selection of CID(s) as detailed in SOW paragraph 7.1.4.b.
- 7.4.3. The CID structure shall be a CI tree structure (an explicit part of the CMP) with the BCA Replacement systems being the top level CID and shall show the relationships between the lower level CID.

7.5. Baselines

- 7.5.1. **Functional Baseline:** The Contractor shall propose the CID that he considers to best describe the functional baseline, which includes all necessary functional characteristics, the test requirements, interface characteristics and the design constraints. From this, the Contractor shall establish the Development and Product baselines as described below.
- 7.5.2. **Development (Allocated) Baseline:** The Contractor's Development Baseline shall comprise the configuration documentation, which includes:
- a. Functional and system design documentation, development specifications, performance specifications, and interface characteristics and documentation;
 - b. The allocation of functional characteristics to CID(s);
 - c. Design constraints;
 - d. The verification and testing deliverables required to demonstrate achievement of the functional baseline.
- 7.5.3. **Product Baseline:** The product baseline shall comprise the configuration documentation, which includes:
- a. Product, material and process specifications;
 - b. Engineering drawings;
 - c. Other technical documentation for CID(s) that satisfactorily reflects the requirements of the functional and development baselines;
 - d. Production acceptance test results/reports.

7.6. Traceability

- 7.6.1. The Contractor shall ensure that there is full traceability through all baselines back to the functional baseline. The baselines shall be maintained by the Contractor in a database established by the Contractor as specified under CM Tools below.

7.7. Documentation

7.7.1. Detailed proposals for the documents that shall comprise the above baselines shall be included in the CM Plan for approval by the Purchaser. At the end of the contract, the Contractor shall deliver the baseline documentation in quantities as specified in the SSS and in format that complies with SOW SECTION 13. As part of the CM database, as specified under CM Tools below, the Contractor shall transfer a copy of the current version of all baselines to the Purchaser at contract completion.

7.8. Configuration Control (CC)

7.8.1. The Contractor shall describe his Configuration Control (CC) procedures in the CM Plan. The Contractor shall be responsible for issuing in a timely manner all approved changes and revisions to the functional, development and product baseline documents included in the Contract. This includes changes originated both by the Contractor and the Purchaser. Copies of change pages or documented revisions shall be provided in accordance with the Schedule of Deliverables. Where a change affects more than one document, or affects documents previously approved and delivered, the Contractor shall ensure that the change is properly reflected in all baseline documents affected by that change. The Purchaser must approve all changes prior to becoming effective.

7.9. Engineering Change Proposals (ECP)

7.9.1. Changes to baselined CID(s) shall be processed as either Class I or Class II Engineering Change Proposals (ECP)(s) as defined in SOW paragraph 7.1.4.c. The Contractor shall propose in the CM Plan an ECP format based on the requirements in SOW paragraph 7.1.4.c.

7.9.2. The Contractor shall use the CC procedures specified in the CM Plan for the preparation, submission for approval implementation and handling of ECP(s) to baselined CID(s). When submitting ECP(s), the Contractor shall assign a priority rating of Emergency, Urgent or Routine. Extensions to the target times for processing Class I ECP(s) shall be mutually agreed upon by the Contractor and Purchaser. No Class I ECP shall be implemented until it has been approved by the Purchaser.

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- 7.9.3. Prior to implementation, all Class II ECP(s) shall be submitted by the Contractor to the Purchaser for review and classification concurrence. If the Purchaser's representative does not concur with the classification, Class I ECP procedures shall be applied and the ECP shall be formally submitted to the Purchaser for approval or disapproval.
- 7.9.4. All design changes shall be appropriately reflected in the technical documentation by the issue of appropriate changes or revisions. The Contractor shall provide all such changes/revisions to the Purchaser.

7.10. Requests for Deviation and Waiver

- 7.10.1. If required, the Contractor shall prepare, handle, and submit for approval, Requests for Deviation (RFD)(s) and Requests for Waiver (RFW) as defined in SOW paragraph 7.1.4.c. The Contractor shall propose in the CM Plan a RFD/RFW format based on the requirements in SOW 0 above. The Contractor shall be aware that permanent departures from a baseline shall be accomplished by ECP action rather than by RFD.

7.11. Configuration Status Accounting (CSA)

- 7.11.1. The Contractor shall be fully responsible for the Configuration Status Accounting (CSA) for all CID(s) in accordance with SOW 0 above Reference (d). This system shall consist of reports that shall be prepared and delivered in a manner, format and schedule that shall be proposed by the Contractor in his CM Plan and approved by the Purchaser.
- 7.11.2. At the end of the contract, the Contractor shall deliver a set of final CSA reports for each CID in quantities as specified in the SSS.
- 7.11.3. In addition, the Contractor shall develop and maintain a CSA Database using the appropriate database management and other related software tools for the entire period of the contract.

7.12. Configuration Audits

- 7.12.1. Configuration audits shall be established by the Contractor to verify compliance with the specifications and other contract requirements in accordance with SOW paragraph 7.1.4.e. The Contractor shall include in the CM Plan detailed proposals for the audits.
- 7.12.2. The audits shall be carried out jointly by the Contractor and the Purchaser in accordance with the Contractor's approved CM Plan.

- 7.12.3. Functional Configuration Audit (FCA) is the formal examination of functional characteristics of a configuration item, or system to verify that the item has achieved the requirements specified in its functional and/or allocated configuration documentation. In this contract, the FCA shall primarily consist of review of all the component based requirements of the Contract and contract documentation, and tests or test results where necessary to demonstrate the full compliance of the functional requirements with allocated components delivered to the Purchaser.
- 7.12.4. Physical Configuration Audit (PCA) is the formal examination of the "as-built" configuration of a configuration item and system against the technical documentation to verify the product baseline. In this contract, PCA shall consist of review and verification of design documentation against the delivered system and individual system components. PCA shall also include the review of system-wise functional and performance requirements that were not reviewed at FCA.
- 7.12.5. Audit Location. The FCA and the PCA shall be conducted after FAT at factory and after SAT at site respectively. The Contractor shall ensure that after completion of the FCA and PCA Minutes of meetings detailing these activities are published and distributed to the Purchaser.

7.13. Configuration Management Tools

- 7.13.1. The various baselines referred under SOW paragraph [7.5](#) **Error! Reference source not found.** ~~Error! Reference~~ the Contractor using automated tools.
- 7.13.2. A CSA database shall be maintained using the software tools for the entire period of the contract.
- 7.13.3. Upon request from the purchaser, the Contractor shall transfer the current CSA database to the Purchaser. The Contractor shall deliver the latest version of CSA database along with the tool to the Purchaser prior to the FSA of the project (no later than 100 weeks after EDC).

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- 7.13.4. During the life cycle of the BCA Replacement project and until the end of the Contractor Logistics Support (see SOW paragraph 8.6), all baselined documents created under this contract shall be maintained by the Contractor in the CSA database using the software tools to allow efficient update, automated tracking of changes through all affected CID(s) and baseline documents, and continued automated maintenance and printing of these documents, including tables, figures, and readings.

SECTION 8 INTEGRATED LOGISTIC SUPPORT

8.1. Integrated Logistics Support Plan (ILSP)

- 8.1.1. In PIP Section 5 the Contractor shall describe the Contractor's logistics operation, especially as it relates to the requirements stated in this Section. Specifically, the Contractor shall describe his activities to:
- a. Support the compilation of the Recommended Spare Parts Lists (RSPL) and Recommended Tools and Test Equipment Lists (RTTL);
 - b. Ensure that the specified preservation, packaging, handling, storage, packing codification, transportation and marking requirements of equipment are met;
 - c. Ensure that the warranty requirements of the Contract are satisfied.

8.2. Maintenance

- 8.2.1. Maintenance shall be accomplished at four distinct support levels.
- 8.2.2. First level support (on-site, non-specialized) consists of simple routine administration and "housekeeping" activities. This level is user facing and is the first line of technical support. A single point of contact inside the agency's central service desk is provided to customers for the implemented services. The service desk will log, categorize, prioritize, diagnose and resolve incidents within the boundaries of their training and permissions. The pertinent NCI Agency CIS Support Units (CSUs) carry out this level of support, in coordination with the NCI Agency's centralized service desk.
- 8.2.3. Second level support (centralized) provides escalated technical support to incident investigation and diagnosis. This level delivers advanced expertise to process services related to centralized system operations, fault isolation, system administration, management of maintenance services, system configuration, including reconfiguration of data sources and data connectivity to restore operations, assistance to first level and on-site support. This level performs end-to-end service monitoring and takes actions to resolve the incident and recover the services impacted. This level is performed by the NCI Agency Service Operations Centre in Mons, Belgium (central network operations centre), assisted by NCI Agency network and system operators and administrators.

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- 8.2.4. Third level support (centralized) consists of central service management, central problem isolation and resolution, system-level maintenance, local repairs or spares provision, and management of deficiencies and warranty cases, beyond the capability of level 2 support. The NCI Agency NSII Service Line engineers in Mons, Belgium carries out this level of support, supported by warranty and an existing Contractor Logistics Support (CLS).
- 8.2.5. Fourth level support (Contractor) consists of off-site factory/vendor problem resolution and maintenance, beyond the capability of third level support (usually under warranty). Interaction with the level 4 Contractor is the responsibility of support level 3.
- 8.2.6. The new BCA system will be maintained and supported at levels 1 and 2 by the NCI Agency CSU Northwood, in cooperation with the NCI Agency's central operation centre and service desk in Mons. Operators, maintainers and system administrators will be trained to perform these levels of support.
- 8.2.7. At level 3, the BCA system will be maintained and supported by the NSII Service Line, supported by a supply of NATO-owned on-site and depot-level spares, and Contractor support including standard warranty.
- 8.2.8. The Purchasers responsibility for operation, maintenance and support period of the BCA system commences at date of final acceptance of the system (FSA).
- 8.2.9. The Contractor responsibility for hardware and software support lasts until end of warranty period.

8.3. Spare Parts

- 8.3.1. The Contractor shall provide a fully detailed and priced RSPL no later than two (2) months after CDR meeting that shall detail comprehensively all spares in a hierarchical breakdown shall are required to meet the reliability and availability requirements. This RSPL shall include as a minimum:
 - a. Item sequence number;
 - b. Nomenclature;
 - c. True Manufacturer's Part number;
 - d. True Manufacturer's Identification Code;
 - e. Mean Time Between Failure (MTBF) (actual or predicted);

- f. Population, by terminal and total;
 - g. Recommended quantity;
 - h. Unit Price (including packing/packaging and shipment).
- 8.3.2. Delivery of the RSPL shall be in accordance with the SSS, and these recommendations shall be screened by the Purchaser. The Contractor shall provide all relevant documentation including the full range of drawings. Appropriate technical staff with knowledge of the equipment concerned shall be assigned by the Contractor to enable the Purchaser to make a reasoned selection of the spare parts, tools and test equipment etc. required.

8.4. Tools and Test Equipment

- 8.4.1. The Contractor shall provide a fully detailed and priced RTTL no later than two (2) months after CDR meeting, for standard and special-to-type tools, test equipment and test fixtures, cables, connectors, support equipment, etc. in accordance with the SSS up to Level 2. Requirements for standard and special-to-type tools, test equipment and test fixtures, cables, connectors etc. to enable the prescribed maintenance shall be minimal, comprising no more than such items as radio tester, automated test equipment, torque screwdrivers, etc. Quantities of such items to be recommended shall be the minimum consistent with the number required per maintenance operation, with no allowances being included for redundancy. The list shall clearly indicate for what maintenance action the recommended item will be used, parameters to be measured (if applicable), minimum/maximum test equipment specification requirement etc.

8.5. Marking of Items and Components

- 8.5.1. A nameplate in English language with non-erasable letters/numbers, giving the serial number, NCI Agency contract number and the part number shall be properly attached in a prominent position on each major assembly to enable reading and control with easy access when installed.
- 8.5.2. Marking shall be accomplished in a manner that will not adversely affect the life and utility of the item or component.
- 8.5.3. Whenever practicable, the marking shall be located in such a manner as to allow it to be visible after installation.

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- 8.5.4. Marking shall be as permanent as the normal life expectancy of the material on which it is applied and shall be such as required for ready legibility and identification.
- 8.5.5. Marking shall be capable of withstanding the same environment tests required of the part and any other tests specified for the marking itself.
- 8.5.6. When possible, letters, numerals and other characters shall be of such a size as to be clearly legible.

8.6. Logistics Support during Implementation and Warranty

- 8.6.1. Warranty period starts with the successful completion of FSA and lasts twelve (12) months.
- 8.6.2. The maximum Turn Around Time for repairs during the Warranty period shall not exceed ten (10) days for any unit after the equipment has been received at the Contractors plant.
- 8.6.3. Up to FSA of the BCA Replacement Systems to be installed at the site, the Contractor shall provide his own spare parts, tools and test equipment to maintain the equipment to the required performance level.

8.7. Transportation and Packing

- 8.7.1. With the sole exception of items to be returned for repair/exchange from a site to the Contractor, all supplies covered under this Contract shall be transported through Contractor arrangements to the destination(s) detailed in the SSS at the expense of the Contractor (also during the warranty).
- 8.7.2. The Purchaser shall not be liable for any storage, damage, or any other charges involved in transporting of supplies prior to the actual acceptance of such supplies at the designated destinations. The Contractor shall deal with the insurance.

8.8. Preservation and Packing

- 8.8.1. The Contractor shall, for the purpose of transportation, package, create, or otherwise prepare items in accordance with the best commercial practices for the types of supplies involved, giving due consideration to shipping and other hazards associated with the transportation of consignments overseas.
- 8.8.2. For items of supply such as spare parts, test equipment and tools etc, the Contractor shall preserve and package items to withstand the following:

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- a. Long term storage for a minimum of five years in a temperate climate and in permanent buildings, and temporary storage of up to six months in enclosed transport vehicles; and;
 - b. Movement including road (truck), rail, air (C130, C160), and sea, and handling by any means;
 - c. Purchaser will provide rooms for storage of the spare parts in permanent heated buildings/rooms. Spare parts shall be packed and prepared by the Contractor to be stored in such buildings. However, the Purchaser needs to know how much square meters Contractor will need to store spare parts.
- 8.8.3. Special care shall be taken to ensure that, in dealing with equipment destined for installation in "clean areas", due account be taken of the necessity to preserve the environmental conditions during unpacking and installation.
- 8.8.4. The Contractor shall provide any special packing/containers required for the shipment of repairable items at no extra cost to the Purchaser.

8.9. Notice of Shipment and Request for Custom Form 302

- 8.9.1. A customs declaration form 302 is required for all shipments entering into any EU state from a non-member Nation. The Contractor shall conform to the requirements of Clause 20 of the Contract General Provisions entitled "Notice of Shipment and Delivery" prior to the shipping of any items under this Contract.

8.10. Packing Lists

- 8.10.1. The Contractor shall establish the packing lists in such a way as to permit easy identification of the items to be delivered at the site. These packing lists shall reflect the same wording and sequence as those used in the contract schedule of supplies and in the invoices.
- 8.10.2. Packing lists shall accompany the shipment. Each individual container/box from a consignment must have one packing list in a weatherproof envelope affixed to the outside of each container/box, indicating exactly what is contained inside. One packing list shall be put inside each container/box.
- 8.10.3. The Contractor shall also furnish one copy of the packing list in the English language to the Purchaser and to the Freight Forwarder, the number of copies required by this Forwarder.

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- 8.10.4. The packing lists shall contain the following information as a minimum:
- a. Shipping address;
 - b. Package number;
 - c. Contract number;
 - d. Contract item number;
 - e. Item description;
 - f. Part number;
 - g. NATO Stock number (if available);
 - h. Serial number (if available);
 - i. Quantity shipped;
 - j. Number of the corresponding Customs Form 302 (when required);
 - k. Shipping dimensions & weight per separately packaged item.
- 8.10.5. Where manufacture is under Government Quality Assurance Authority (GQAA) surveillance, there is a requirement for Certificates of Conformance to be included with packing containers, three each per pack, one inside and two outside in a waterproof envelope.

8.11. Marking on the Packing

- 8.11.1. The packages or containers in which supplies are transported shall, in addition to normal mercantile marking, be marked with the following data on a separate nameplate (or transfer or stamping if nameplate is not practical):
- a. System/sub-system denomination;
 - b. Purchaser contract number;
 - c. Contract Item Number Manufacturer's name and address;
 - d. Ship to address.
- 8.11.2. To enable boxes, crates and other containers to be identified easily and to ensure correct assignment of unique equipment to its appropriate site, a coding system shall be proposed by the Contractor for approval by the Purchaser.

8.12. Inventory

8.12.1. The Contractor shall provide the Purchaser with a Material Data Sheet (MDS), in electronic format, fourteen (14) working days before the first delivery. The MDS, as a minimum, shall include the data elements cited with an "M" mandatory below, if applicable. The MDS, amended as necessary, shall be used by the Purchaser for acceptance purposes and to create data element entries in the NATO Accounting system, ahead of delivery of the Final System Inventory.

8.12.2. The Contractor shall provide the Purchaser's ILS PoC with a Final System Inventory, which shall be based on and be consistent with the MDS, ten (10) working days before PSA. The Final System Inventory shall include all data elements listed below. The Final System Inventory shall be provided as a hard copy as well as on electronic media in Excel format. An inventory template, together with details on the exact format of the various data elements to be adopted, shall be provided to the Contractor at the request of the Contractor after contract award. For information purposes, the minimum inventory/equipment data elements required are as follows:

- (a) Contract Customer Line Item Number (CLIN);
- (b) NATO Stock Number (NSN - if available);
- (c) Nomenclature – M;
- (d) Expendable/Repair code XB/ND – M;
- (e) True Manufacturer Part Number – M;
- (f) True Manufacturer Cage Code – M (or complete name and address);
- (g) Vendor/Contractor Cage Number (or complete name and address) – M;
- (h) Vendor/Contractor Part Number – M;
- (i) Quantity ordered-M;
- (j) Order Unit – M;
- (k) Serialized Item Tag – M;
- (l) Serial number – M;
- (m) Serial number software revision level;
- (n) Serial number hardware revision level;

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- (o) Other serial number attributes;
- (p) Currency – M;
- (q) Unit Price – M;
- (r) Warranty expiration date – M;
- (s) Receiving NATO Depot;
- (t) Extended Line Item Description;
- (u) Part Number of next higher assembly;
- (v) Qty. in the next higher assembly.

8.13. Codification

On the basis that an adequate manufacturer's identification numbering system is in place, NATO codification (as described in the NC3O General Provisions) is not required.

SECTION 9 RELIABILITY, AVAILABILITY, MAINTAINABILITY & TESTABILITY

9.1. General

- 9.1.1. The Contractor shall conduct a limited Reliability, Availability, Maintainability and Testability (RAMT) programme, consisting of a RAMT prediction activity and a Spares modelling activity. This programme shall be planned, and developed in conjunction with system and equipment design, fabrication, installation and test activities to ensure that the RAMT activities in the programme can and shall be used to verify and influence the design of the system.
- 9.1.2. All base data, and intermediate and final results of the RAMT programme shall be published in the RAMT Case, specified below.
- 9.1.3. The Contractor shall ensure that the RAMT programme is performed during the design phase, reviewed before PDR, and accepted at CDR.
- 9.1.4. The Contractor shall use STANREC 4174, ADMP-1, ADMP-2, MIL-HDBK-338B, and MIL-HDBK-470A as guidance when establishing and conducting the RAMT programme.

9.2. RAMT Prediction

- 9.2.1. The Contractor shall develop and maintain a Reliability Block Diagram (RBD) of the entire system, relating all items (i.e. hardware down to LRU level and all software modules) based on failure dependencies, and explaining how the reliability and maintainability of each item contributes to the success or failure of the entire system. Firmware shall be treated as being part of the pertinent LRU. The RBD shall clearly capture and display the MTBF, MTTR and Inherent Availability (Ai) characteristics of each item, assembly, sub-system, and the entire system, per location.
- 9.2.2. The results from the RBD shall be used to calculate and produce a prediction of system Reliability, Maintainability, and Inherent Availability at the sub-system and system level, of the installed system.
- 9.2.3. Inherent Availability shall be calculated as $MTBF / (MTBF + MTTR)$. Reliability shall be understood as Mission Reliability. MTTR shall be understood as Mean Time To Repair, to include fault isolation, access, disassembly, remove and replace, assembly, configuration, check-out, and start-up, and to exclude administrative and logistics delay times.

- 9.2.4. All item data sheets, underpinning the MTBF and MTTR values used in the development of the RBD, as well as all intermediate and final calculations and predictions, shall be provided as part of the RAMT Case.

9.3. Spares Modeling

- 9.3.1. The Contractor shall develop a Spares Model that shall produce a recommendation of the quantity, location and cost of the spare parts (spares, repair parts, and technical consumables) required to operate and maintain the entire system with a stock-out risk of less than 5%.
- 9.3.2. The Spares Model shall include all spares, repair parts and technical consumables required to operate and maintain the entire system. The model shall reuse the results of the RAMT prediction activity, and shall also be used to produce the RSPL. The Contractor shall ensure that the RAMT prediction model, the Spares model, and the RSPL are consistent.
- 9.3.3. The Spares Model shall identify all model items by true manufacturer's part number and nomenclature, as well as the true manufacturer's identification code (CAGE code).
- 9.3.4. For each model item in the Spares Model it shall be indicated whether the item is repairable or non-repairable. For each model item it shall be indicated what the replenishment turn-around time (TAT) is, as well as the unit price, and cost to supply the item. For each repairable item it shall also be indicated what the repair cost is. These cost figures shall be used to price the recommended spare parts solution, both in terms of initial investment cost and in terms of annual replenishment cost.
- 9.3.5. All data used in the Spares Model, as well as all intermediate and final calculations and recommendations shall be provided as part of the Support Case.

9.4. RAMT Tools

- 9.4.1. A professional tool shall be used to develop and analyse the RBD, as well as the Spares Model. A general purpose tool such as Microsoft Excel shall not be used as the main tool. The tool shall be capable of exporting and reporting data and results in electronic formats compatible with MS Office 2010. All data and results pertaining to the development and analysis of the RBD and the Spares Model in this tool shall be made available to the Purchaser at the request of the Purchaser.

9.5. RAMT Case

9.5.1. The Contractor shall develop and maintain a RAMT case in which the RAMT prediction and Spares modelling activities shall be documented. The RAMT case shall include:

- all equipment data sheets and references, clearly indicating the equipment's reliability and maintainability characteristics used as data input to the RAMT prediction and Spares modelling activities;
- the complete set of Reliability Block Diagrams, including reliability, maintainability and intrinsic availability predictions per block, per aggregated block, per sub-system, per location, and for the entire system;
- the complete Spares Model, including recommendation of quantity, location and cost of all spare parts required to operate and maintain the system.

9.5.2. The RAMT case shall form a body of evidence, providing sufficient credibility to the data used and the results achieved in all calculations and models. The RAMT case shall provide rationale and justifications for all data and formulas used in any of the calculations and models.

SECTION 10 TEST AND EVALUATION (T&E)

10.1. Introduction

This section outlines the testing requirements to be carried out during the implementation and acceptance of contract deliverables.

10.2. General Principles

10.2.1. All deliverables to include hardware, software and firmware supplied by the Contractor under this contract shall be tested to meet the requirements of this contract.

10.2.2. Test shall be performed for each equipment/subsystem/system as per the following phases:

- a. Phase 1 Factory Acceptance Test (FAT);
- b. Phase 2 System Acceptance Test (SAT).

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- 10.2.3. Formal testing is initiated by a TRR (Test Readiness Review). The primary purpose of this review is to evaluate test progress and to verify that scheduled tests may begin. There is one TRR per Test Phase. The Contractor shall prepare a TRR Report for each TRR.
- 10.2.4. System/subsystem tests shall be performed at the Contractor premises during FAT. The System Acceptance Test shall be conducted at HQ MARCOM.
- 10.2.5. The Contractor shall be responsible for integrating any PFE into his test programme to the extent that PFE is an integral part of the system, sub-system or network, as specified in SOW paragraph 3.4 above.
- 10.2.6. All the BCA Replacement FAT and SAT testing shall be the responsibility of the Contractor who shall provide all the personnel¹, documentation, equipment and test data required for installation, commissioning and execution of the test. The Contractor shall be entirely responsible for the co-ordination and performance of the tests, and shall ensure that an adequate number of Contractor's engineers and technicians are present to ensure the timely completion of all tests. The Contractor shall provide the necessary duly calibrated test equipment, tools and any other items required for the satisfactory completion of the tests and the recording of their results. This shall include but not be limited to the following:
- a. Performance Measurement instruments;
 - b. Protocol Analysers;
 - c. Installation tools;
 - d. Test Plans and Procedures;
 - e. Any transmission services/resources required to achieve test configuration.
- 10.2.7. The Contractor shall assign and provide a Test Director and Test Operators and the Purchaser and/or his Designated Representative will attend and witness the testing.

¹ Personnel from HQ MARCOM can be utilised for SAT if available.

- 10.2.8. The Purchaser shall have the right to demand repetition of tests, proof of the validity of the test equipment calibration, and performance of reasonable additional tests to clarify doubtful or marginal results. The Contractor shall make available to the Purchaser, all facilities, information and assistance necessary to permit a valid interpretation of the test results.
- 10.2.9. The Test Environment shall be under the control of the Purchaser during the testing period. Prior to the commencement of the tests, the Test Environment shall be baselined and no changes to hardware, software, firmware and/or configuration shall be introduced by the Contractor unless explicitly authorised in writing by the Purchaser. Failure to do so by the Contractor shall render the complete testing null and void.

10.3. Test Plan

- 10.3.1. The Contractor shall provide, as part of the PIP Section 6, a system Test and Evaluation Plan describing all the activities necessary to complete the entire test programme as outlined below. The plan shall also indicate the stage at which FSA shall be held in accordance with SOW Section 11.
- 10.3.2. The Contractor shall describe in the Test Plan the global organisation, including relationships between the different actors involved (that shall cover all testing stages).
- 10.3.3. The Contractor shall provide a flow diagram that identifies the overall sequence of tests, the location, and Contractor and Purchaser equipment and personnel involved in each test, and the relationship of test events to project milestones.
- 10.3.4. The Contractor shall describe the tasks that will permit to meet testing requirements.
- 10.3.5. The Contractor shall identify all CI(s) that are subject to the test program and shall indicate by which method the items will be evaluated.
- 10.3.6. The Contractor shall identify (in a Traceability Matrix) for each requirements or derived business use case or derived system use case, the proposed methodology of validation, and where testing is proposed, the associated test case(s).
- 10.3.7. The Contractor shall identify the tests associated with each testing stage and identify any tests that can only be performed at the Purchaser's facility (in particular test of interfaces requirements).

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- 10.3.8. The Contractor shall identify the Contractor's requirements for configuration and support of the Purchaser's test facility.
- 10.3.9. The Contractor shall include in the Test Plan as annexes, template for:
- a. Test case description (business test cases and system test cases);
 - b. Test procedure description;
 - c. Test waiver request;
 - d. Test results sheet;
 - e. Test report template.

10.4. Testing

10.4.1. Test Procedures Definitions

- a. Analysis/Certification (A/C): Test by A/C consists of design documentation/calculation or certification of recognised third party government laboratory or Manufacturer documentation and/or CoC based mainly on Test Results etc. that can prove that the requirement is met without performing the test. An example is the reliability analysis.
- b. Demonstration (DEM): Demonstration is defined as the determination by actual operation and/or adjustments as to whether or not an item has the capability of performing its specific function(s) in accordance with the conditions and the requirements of the performance specifications. This verification method consists essentially in a functional/ operational test.
- c. Testing: Testing is defined as the determination by comparison of the results of qualitative and/or quantitative data collected by appropriate instrumentation during the systematic exercising of an item to the stated requirements of the performance specification that the item exhibits conformity. Tests shall be carried out whenever a) or b) above do not cover the requirements.
- d. Inspection: Inspection is defined as the determination by simple visual inspection as to whether or not an item conforms to the performance specification.

10.4.2. Test Procedures

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- a. Before each major test (FAT and SAT), a Test Readiness Review shall be conducted by the Contractor with the participation of the Purchaser and the Contractor. The Contractor shall not proceed to a formal test until authorised by the Purchaser.
- b. The Contractor shall submit the draft test procedures for FAT and SAT to the Purchaser for approval before TRR and no later than three (3) months prior to the execution of the tests.
- c. Following approval by the Purchaser, printed copies of the coordinated and approved Test Procedure (Final) shall be issued and distributed one (1) week prior to the first application of the test. Approval of the Test Procedure by the Purchaser will be for application of the tests only and shall not represent an agreement that the test documents supersede the requirements of the Contract.
- d. The Contractor shall ensure that four (4) copies of the relevant Test Procedure are made available at each site for Purchaser's use.
- e. Each test procedure shall as a minimum include, but not be limited to the following:
 - i. Scope;
 - ii. Approach;
 - iii. Testing Environment with a block diagram of the test layout;
 - iv. List of all required test equipment;
 - v. A detailed step-by-step procedure written so that the procedure can be clearly understood and followed by the Test Group;
 - vi. Objectives and expected test results with permissible test limits;
 - vii. Test data sheet(s);
 - viii. Requirements Coverage and Test Matrix;
 - ix. Observations Sheets;
 - x. Signature Sheets.

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- f. The Contractor shall provide the Purchaser with information and assistance as may be necessary during the review and evaluation of the test procedures.
 - g. Modification of inaccurate or inadequate Test Procedure and any subsequent work arising there from shall be carried out at the Contractor's expense, including retesting due to deficiencies identified by the Purchaser.
- 10.4.3. Test Readiness Review (TRR) Meeting:
- a. TRR Meetings shall be conducted by the contractor before each test stage to determine whether the contractor is in fact ready to begin testing.
 - b. TRRs shall be conducted, as needed, for each CI to confirm completeness of test procedures, to assure that the CI is ready for testing, and to assure that the performing activity is prepared for formal testing. TRR shall confirm that:
 - i. test procedures comply with test plans and descriptions, demonstrate adequacy to accomplish test requirements, and satisfy CI specification requirements for verifications;
 - ii. pre-test predictions and informal test results (if any) indicate testing will confirm necessary performance;
 - iii. required operation and support documents are complete and accurate.
 - c. The Contractor shall conduct TRRs at various stages of system development including but not limited to the following:
 - i. Prior to initiation of In-Plant formal and Contractor formal testing;
 - ii. Prior to Phase 1 Factory Acceptance Test (FAT);
 - iii. Prior to Phase 2 System Acceptance Test (SAT).
 - d. The outcome of TRR is the decision to proceed or not with test execution in accordance with the entry criteria required by the TRR checklist approved by the Purchaser. There is one TRR per test event. The decision to proceed is formalised by the Test Order sign-off.
 - e. The Contractor shall present the following for review (this will compose in more detail the TRR checklist) as follows:

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- i. Requirements changes: Requirements Specs that have been approved since System Requirements Review that impact testing;
- ii. Design changes: Any changes on the design that have been made since PDR/CDR that impact testing (ECPs);
- iii. Software changes;
- iv. SW Test Procedures;
- v. Description of Configuration items under test (HW/SW/Licenses);
- vi. Test environment (test tools);
- vii. Resources;
- viii. Problems;;
- ix. Test limitations
- x. Schedules.

10.4.4. Test Readiness Review Report

- a. For each formal test event, the Contractor shall prepare a TRR Report for each TRR.

10.5. Installation Checkout

- a. HW Installation Checkouts consist in a visual inspection of installation workmanship, installed equipment's iaw the drawings & as-designed lists, cabling, equipment/cables labelling on the basis of a checklist.
- b. Contractor and their Subcontractors perform in advance their HW Pre-Checkouts using the checklist.
- c. Results of Contractor HW Pre-Checkouts are recorded in checkout booklets per cabinet and for other installed equipment.
- d. When Contractor HW Pre-Checkouts are completed the Contractor shall state to Purchaser their readiness for HW Installation Checkouts.
- e. HW Installation Checkouts are conducted with the participation of the purchaser and Contractor/Subcontractors.

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- f. During HW Checkout findings/results/action items are recorded in the Checkout Checklists and will be corrected/completed by the Contractor/Subcontractors.
- g. The corrections will be checked at the next hardware checkout depending of the deadline.
- h. Contractor needs to provide the following required documentation (10 days in advance):
 - i. Checkout Checklists;
 - ii. Cabinet Drawings;
 - iii. Work Station Drawings;
 - iv. Operations and Technical Room Layout Drawings;
 - v. PDP Drawings;
 - vi. Interconnection Drawings;
 - vii. Cable Data Sheets;
 - viii. Equipment Certificate of Conformities (CoCs);
 - ix. As-Designed Configuration Index;
 - x. Draft As-Built Drawings (ABDs);
 - xi. Other as required for the this specific project like Antenas;
- i. At the end of the meeting, minutes shall be recorded with all the findings and AIs.
- j. AIs shall be solved to declare the installation finished.
- k. Installation CO shall be part of the Site Installation Acceptance.

10.6. Requirements Coverage and Test Matrix

10.6.1. The Contractor shall develop and provide as part of the Test and Acceptance Plan the Requirements Coverage and Test Cases Cross Reference Matrix. The matrix shall provide the mapping of the requirements into individual test cases and shall identify Test Case group (i.e. System, Subsystem etc.) and number. In some cases additional specific detailed requirements might be present in their respective sections, but these requirements are always related to the same overall requirement and shall thus be reflected in the details of the Test Steps to be included in the related Test Case. The matrix shall contain but not be limited to:

- a. Contract Reference;
- b. Requirement Definition;
- c. Related Test Case Reference;
- d. Related Test Procedure Overview.

10.7. Factory Acceptance Test (FAT)

10.7.1. For BCA Replacement system, a representative scaled down system (Test Bed) approved by the Purchaser shall be assembled and installed at Contractor's facilities at first to perform the FAT. These tests shall demonstrate the functionality and shall include at least one (1) test case for each module/function. The main installation activities for FAT shall include:

- a. The installation material at Contractor's Facilities;
- b. The connection/integration of the sub-systems;
- c. System Configuration;
- d. The site installation, inspection and pre-testing.

10.7.2. For BCA Replacement system, the FAT shall include:

- a. Functional tests;
- b. Sub-System and Modems functional tests;
- c. Remote Supervisory and Control functionality tests;
- d. Integration tests that consist of verifying the functional integration of the BCA components.

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- e. Integration test that consists to set up the BCA Replacement system at Contractor's factory and to check the functionality with the following objectives:
 - i. To verify that the subsystem conforms to the corresponding Design Specification at Subsystem level;
 - ii. To ensure that the functional requirements of the Subsystems are fulfilled;
 - iii. To ensure that the subsystem is a fully integrated and stable entity that is ready to be installed and integrated in the System;
 - iv. To verify that drawings and manuals meet the documentation requirements;
- f. Maintainability and Testability. Verification that failure modes can be detected by BIT, components are easily accessible and can be removed/replaced simply.

10.7.3. Entry/Exit conditions

- a. Entry conditions as defined by FAT TRR:
 - i. Site Survey conducted and reports delivered to Purchaser;
 - ii. PIP delivered to Purchaser, reviewed and accepted by the Purchaser;
 - iii. RSPL delivered to Purchaser;
 - iv. RTTL delivered to Purchaser;
 - v. Site Installation Specifications delivered to Purchaser;
 - vi. FAT procedures approved by the Purchaser;
 - vii. PDR and CDR were completed.
- b. Exit conditions:
 - i. All test criteria shall be passed successfully;
 - ii. Recorded deficiencies that the Purchaser classifies as mandatory shall be cleared;
 - iii. Acceptance of the FAT Report by the Purchaser.

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10.7.4. The Purchaser acceptance of FAT Test Report shall grant permission to the Contractor to proceed with the delivery and installation of the BCA Replacement systems at site.

10.8. System Acceptance Test (SAT)

10.8.1. After installation and integration, for BCA Replacement, a SAT shall be performed with the following objectives:

- a. To verify the integration of the system;
- b. To demonstrate that the system is fully functional (i.e. each main function of the system shall be tested under real operational conditions);

10.8.2. During this phase, System Acceptance Test (SAT) functional tests shall take place to verify that:

- a. BCA Replacement systems equipment, subsystems/system, after integration, are fault-free, working properly and meet the relevant design specifications;
- b. BCA Replacement systems are able to fully meet all the operational objectives and requirements as set forth in SOW paragraph 3.2 above.

10.8.3. The testing includes:

- a. System Functional Integration tests;
- b. Conformity of System to the corresponding Detailed Design Specification at system level;
- c. The build and test of the complete system from the delivered configuration items (source codes, system files, drivers, etc.), and;
- d. Operational tests to verify that the system fully meets the operational requirements as stated in SOW paragraph 3.2 above.

10.8.4. Entry/Exit conditions as per SAT TRR

- a. Entry conditions:
 - i. SAT procedures approved by the Purchaser;
 - ii. ISAT Report(s) accepted.
- b. Exit conditions:
 - i. All test criteria shall be passed successfully;

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- ii. Recorded deficiencies that the Purchaser classifies as mandatory shall be cleared;
 - iii. Acceptance of the SAT Report by the Purchaser.
- 10.8.5. Contractor shall prepare at least following documents for Software installation & integration tests:
- a. Test Plan;
 - b. Test Description;
 - c. Test reports;
 - d. Test readiness Review Report.

10.9. Test Reports

The Contractor shall supply the completed test reports for FAT and ISAT/SAT, that fully document the outcome of the tests, within two (2) weeks of completion of the respective tests procedures, for Purchaser review and acceptance. The selected contractor shall request approved test processes, documentation and reporting formats applicable from NCI Agency following contract award.

10.10. Test Data Sheets (TDS) and Test Results

- 10.10.1. Test results shall be recorded on Test Data Sheets (TDS)(s). The Test Procedures that shall be issued and submitted to the Authority for approval shall include blank TDS that specify the data to be collected and the method to use for recording the results of the tests. The test data sheets shall contain, as a minimum, space for insertion of:
- a. Test location and date;
 - b. Name and Organisation details for Test Director, Contractor and Purchaser Representative;
 - c. Equipment type and serial number(s);
 - d. Test procedure reference number and issue number;
 - e. Type and serial numbers of test equipment employed;
 - f. Test results;
 - g. Observations;
 - h. Comments;
 - i. Signature of the official representatives of the Contractor and the Purchasers representative.

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- 10.10.2. One (1) copy of the test data sheets shall be provided to the Purchaser at the completion of testing. Where appropriate, back-up information such as photographs and graphic information used during testing shall be appended to the test data sheets.
- 10.10.3. The draft ISAT/SAT Test Report may be submitted with hand-written entries in the Test Result Fields, in the Test Data Sheets and in the Observation sheets.

10.11. Test Failure Procedure

- 10.11.1. If the tests to be performed do not result in accordance with the completion criteria relevant to the test being performed (i.e. failures) the subject test(s) will be withdrawn from the testing suit and a preliminary investigation into the cause of the failure shall be carried out and an observation report shall be provided by the Contractor.
- 10.11.2. Testing may resume with the next test after the withdrawal of the failed tests, if the successful termination of the withdrawn tests is not a prerequisite to the following tests. This shall be subject to the approval of the Purchaser.
- 10.11.3. The point at which testing of the withdrawn test(s) is to recommence will be proposed by the Contractor who shall provide the reasons for his proposal and details of remedial action taken in a written reply to the observation(s) raised. Either at that time, or subsequently, it shall be subject to the endorsement by the Purchaser.
- 10.11.4. The procedure shall permit other test series to be carried out should the Contractor propose that it is practical to continue testing, while a particular test has been withdrawn for investigation.
- 10.11.5. In the event that a particular series of tests meet the criteria after more than one attempt at any test, the Purchaser may request the repeat of the test(s) relating to that specification paragraph.
- 10.11.6. All tests shall be done to verify that the equipment provided under this contract meets the specified requirements; their results shall be recorded and any failure to complete a test successfully shall be recorded as deficiency.

SECTION 11 FINAL SYSTEM ACCEPTANCE (FSA)

11.1. Introduction

- 11.1.1. This section outlines the FSA procedure by which the deliverable items that the Contractor is responsible for under this contract will be accepted by the Purchaser. The procedure and documentation necessary at each stage of acceptance are defined to ensure that all contractual requirements are completed and that all deliverables are supplied to the Purchaser. The Contractor shall address the FSA Procedure as part of the PIP Section 8.
- 11.1.2. The system shall be finally accepted (FSA completion) after the successful completion of the following phases:
- a. Successful provision and installation of all supplies and services in accordance with SSS (excluding options) at site and other designated locations;
 - b. Satisfactory completion of applicable factory (hardware and software) FAT, and system acceptance tests (SAT);
 - c. Successful completion of any retrofit activity and/or regression testing resulting from previous testing activities with resolution of all deficiencies;
 - d. Successful provision and delivery of equipment, consumables, spare parts, COTS and other software licences, passwords and documentation;
 - e. Successful completion of the training and all contract requirements, except warranty;
 - f. Successful completion of Final System Acceptance (FSA) activities with closure of all observations and deficiencies.

11.2. Definitions

- 11.2.1. A deficiency is a formal record of any aspect that could jeopardise successful completion of the Contract.

11.3. Clearance of a Deficiency

- 11.3.1. A Deficiency is cleared when the Purchaser has endorsed that the corrective action taken in respect of the Deficiency has been completed to the Purchaser's satisfaction.

11.4. Deficiency Classification

- 11.4.1. Deficiency Classification is the classification that the Purchaser assigns to a Deficiency. The categories for classification are defined as:
- a. Critical: Departure from the specification that must be rectified prior to the completion of SAT as applicable and before FSA can take place. The date by which this must be completed shall be agreed;
 - b. Deferment: Departure from the specification that may be rectified before or after the Test Procedure; the date by which this must be completed shall be agreed. Deferments that are not completed by the due date shall become critical for FSA unless the due date is modified by agreement;
 - c. Omission: A departure from the specification where it is agreed that no remedial action is necessary.

11.5. Deficiency Procedure

- 11.5.1. Deficiencies shall be handled in accordance with the following procedures. The Contractor shall submit all deficiencies to the Purchaser for endorsement of the clearance action taken.
- 11.5.2. A Deficiency shall be recorded when recognising any aspect that could damage successful completion of the Contract. These aspects shall include but not be limited to:
- a. A design shortage or deficiency revealed in any design, implementation or test specification;
 - b. Any shortage or deficiency revealed by inspection or application of testing procedures;
 - c. Any comment raised by the Contractor concerning any aspect of the Contract;
 - d. Any comment raised by the Purchaser or his designated representative concerning any aspect of the Contract.
- 11.5.3. Deficiency sheets shall be maintained by the Contractor and shall record the following information:
- a. The serial number of the deficiency sheet;
 - b. The deficiency;

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- c. Sufficient information to define the context of the deficiency in terms of the articles to which it applies, the state of articles (including any appropriate environmental details, as applicable), and the date of the deficiency;
- d. The authorised personnel endorsing the deficiency;
- e. Any clearance action taken, such as repair and testing, a specification modification, receipt of a written reply from the Contractor etc., as applicable;
- f. The authorised personnel endorsing the clearance and the date of clearance.

11.6. FSA Entry and Exit Conditions

11.6.1. FSA is defined in this Contract as the act by which the Purchaser accepts all supplies and services provided by the Contractor, as defined below.

11.6.2. Entry conditions:

- a. All deliverables, including documentation, test equipment, spares, licences, etc., for which the Contractor is responsible under the contract have been supplied and accepted by the Purchaser;
- b. A deliverables inventory has been provided that details all the deliverables to be supplied under the terms of the contract;
- c. The SIS documents have been supplied with updates to accurately reflect the "As Built" configuration and verification of the accuracy of the Documentation has taken place;
- d. CoC(s) has been supplied that the equipment conforms to the contractual standards and applicable manufacturing standards;
- e. All observations and deficiencies have been resolved by the Contractor;
- f. SAT Reports have been submitted by the Contractor and accepted by the Purchaser;
- g. A QA Report has been supplied by the Contractor's QA Organisation;
- h. A complete list of Keys and any Password and/or Code necessary for the Purchaser to operate the system from day to day, has been supplied to the Purchaser;
- i. Successful completion of the training and all contract requirements, except warranty;

- j. Approval of Security Accreditation Support package and obtaining the Security Accreditation (SA) as stipulated at SOW Section 5.

11.7. FSA Report (FSAR)

- 11.7.1. The Contractor shall provide the Final System Acceptance Report (FSAR) before the FSA meeting.
- 11.7.2. The documents listed below shall comprise the FSAR that shall be prepared by the Contractor.
 - a. CoC that the equipment offered conforms to the contractual standards and is in Conformance with the National codes, laws, regulations and local rules and practices of the Country of installation.
 - b. Deficiency Summary Sheets that shall list all outstanding deficiencies. A Remarks column shall briefly record the technical or operational significance and a decision column shall record the Policy Decision taken in respect of each Deficiency. A clearance date column and a signature column are also required.
 - c. SAT Reports.
 - d. An Inventory of provided supplies that shall detail all the deliverables furnished by the Contractor to meet the terms of the contract for the FSA. The inventory shall include all licences identifiers and keys.
 - e. SIS documents, with updates, to accurately reflect the "As Built" configuration;
 - f. Acknowledgement of COTS and other software licences delivery;
 - g. A QA Report provided by the Contractor's QA Organisation.
 - h. Acknowledgement by MOD ROU and NCI Agency that all Keys and Password lists have been received.

11.8. Final System Acceptance Meeting (FSA meeting)

- 11.8.1. When there are no deficiencies open from the SAT Report, regardless of classification type, then the FSA meeting shall take place within four (4) weeks.
- 11.8.2. The FSA meeting shall be convened and chaired by the Purchaser when he considers that all the deliverables are ready for FSA. The Contractor shall arrange the taking, typing and distribution of minutes of the FSA meeting.

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- 11.8.3. FSA shall be granted in writing from the Purchaser through the FSA document, which shall be signed by both the Purchaser and Contractor. The date of FSA shall be specified in this formal acceptance Document. Except as otherwise provided in the Contract, acceptance by FSA shall be conclusive except as regards latent defects, fraud or such gross mistakes or negligence as to amount to willful intent.
- 11.8.4. In signing the FSA document the Purchaser certifies that the equipment or work concerned is in accordance with the terms of the Contract and thereby grants FSA.

SECTION 12 SITE PREPARATION AND INSTALLATION REQUIREMENTS

12.1. General

- 12.1.1. The purpose of this section is to define the scope and directly associated activities (to be implemented by the Contractor. The requirements defined herein shall be met to enable site and facilities preparation for installation and proper functioning of BCA Replacement systems.
- 12.1.2. The Contractor is responsible for the design and implementation of the BCA Replacement system at HQ MARCOM.
- 12.1.3. Applied technologies and equipment provided by the Contractor shall be modern, reliable and represent current state of art. At the same time they shall enable Operation and Maintenance (O&M) cost lowering to the maximum possible/practicable extent throughout their life cycle.
- 12.1.4. The material and equipment installed shall be produced by entities recognized as reputable and experienced in their designated fields of production. Typical and Commercial off the Shelf (COTS) material and equipment shall be used to the maximum possible extent assuring that spare parts and consumables will be available throughout the life cycle of respective elements, devices and equipment.
- 12.1.5. All the warning signs and warning labels installed by the Contractor shall be provided in the English language. They shall be of sufficient quality and durability to withstand local weather conditions (including solar radiation) and assure at least 7 (seven) years of operation without substantial degradation.

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- 12.1.6. All the works listed herein shall be planned, designed and implemented according to respective legislations and Health and Safety (H&S) Regulations.
- 12.1.7. The Contractor shall install the BCA Replacement system equipment in the equipment area of buildings that are provided by the Purchaser in accordance with SOW Annex B. This equipment area will allow installation of either free-standing equipment or equipment racks.
- 12.1.8. The Contractor shall notify the Purchaser three (3) months ahead of his intention to start his installation activities at a particular site. The notification shall include names, passport numbers and clearances of the installation team.
- 12.1.9. The Contractor shall take into account, working and implementation environment and the constraints as defined in the SOW Annex B.

12.2. Co-ordination between the Contractor and the Purchaser

- 12.2.1. Any requirements put forward by the Contractor shall only be taken into account after consultation with the Purchaser.
- 12.2.2. Any change that may affect the scope of this contract shall be processed through the Purchaser.

12.3. Liaison with the Installation Site(s)

- 12.3.1. All visits to a site shall be planned in co-ordination with the Purchaser or delegated site representative(s).
- 12.3.2. It is the Contractor's responsibility to assure protection of the equipment and materials delivered by the Contractor under this contract during the installation time.

12.4. Access to the site and use of existing facilities and utilities

- 12.4.1. In case any special installation/device is required (i.e. water valve) it is the Contractor's responsibility to provide that installation/ device. The Purchaser upon request will assist in obtaining the required information and permissions.
- 12.4.2. Provision of all of the necessary facilities, for the Contractor own use, is the Contractor's responsibility.

12.5. Site Preparation Data Package (SPDP)

- 12.5.1. The Contractor shall provide the SPDP that shall include but not be limited to the following detailed information in a form of text and illustration:

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- a. Specific implementation structure, responsibilities, lines of control and sub-contractor management structure;
- b. Listing of the existing equipment and structures to be dismantled/demolished, clearly indicating the ones that are to be reused, disposed of by the Contractor or re-installed;
- c. Listing and status/working conditions of non-project related equipment that has to be temporarily dismantled to allow works by the Contractor;
- d. Listing of equipment to be installed including functional description of each components as well as general equipment specifications to include;
 - i. physical specifications - height, length, width, and weight (floor loading) of each equipment rack, cabinet and console;
 - ii. equipment rack, cabinet and console templates;
 - iii. manufacturer's specific machine configuration and space requirements;
 - iv. maintenance access requirements for each equipment rack, cabinet and console.
- e. Equipment layout including consideration of space between power and communication lines and RED/BLACK cables runs as stipulated in the document listed in SOW Section 4 above (paragraph 4.1.1. g and h).
- f. Special requirement for movement of equipment on site.
- g. Names of the Contractor's personnel working at the site during installation.
- h. Site facilities and utilities requirements during installation time.
- i. Site layout plan including detailed layouts (placement) of all equipment racks, cabinets and consoles, showing Equipment racks, Transmitters, Antennas, Short Break (SB) Power Supply Sub-System (PSS), No Break (NB) Power Supply Sub-System (PSS), HVAC, Fire Extinguishing System, etc. including equipment layout.
- j. Equipment specifications to include dimensions and weight (floor loading).

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- k. Any additional action that the Contractor might need such as provisional dismantling of electrical/electronic equipment during installation of the CIS equipment under this contract.
- l. A power budget and equipment power interface requirements.
- m. Electrical diagrams including location and description of Electrical Power Distribution Panels (EPDP)(s), SB and NB PSS elements, integration and interface with SB PSS and Prime Power Supply System provided by The Purchaser, electrical power utilization plan including:
 - i. location and description of power supply panel;
 - ii. input voltages, frequency, and tolerances;
 - iii. safety and secure grounding as per SDIP 29/1²;
 - iv. KVA required for each equipment rack, cabinet and console and the type of termination to Purchaser power supply, cable connections, terminal strip, etc;
 - v. phasing number and colour code of conductors per cabinet/rack;
 - vi. location of power and signal entry points and their respective hole sizes;
 - vii. inter-unit cabling and connection differentiating their red and/or black nature.
- n. Any additional action that the Contractor might need, such as provisional dismantling of electrical/electronic equipment during installation of the antennas or CIS equipment under this contract.
- o. shipping requirements and related information to include:
 - i. Engineering Implementation Schedule including milestone date of delivery of Contractor and Purchaser Furnished Equipment;

- ii. time space of Contractor Personnel to be used at the installation site to ascertain delivery routes and to perform equipment installation;
 - iii. special requirement for movement of equipment on-site and within the allocated facility;
- 12.5.2. Requirements such as, AC and power supply installation requirements etc, shall be indicated in the SPDP in order to quantify the magnitude of total civil works that must be accomplished on site prior to arrival of the equipment for installation.
- 12.5.3. The SPDP shall be provided in quantities as specified in the SSS and in format as specified in SOW paragraphs from 13.2 to 13.9 inclusive, when applicable.

12.6. Recording of on Site Activities

- 12.6.1. Throughout the implementation of the project, the Contractor shall maintain at each site a logbook in which each incident, event and major activity shall be recorded on daily basis. Incidents or events include, but are not limited to: equipment failure, personnel incident, visitors, power failure, lighting strike affecting the site etc. Major activities include, but are not limited to: earth works, concrete pouring, antenna assembly etc. Additionally following information (non-exhaustive list) shall be recorded in the logbook: quantity and quality of material and equipment delivered to the site (including remarks on rejected material/equipment due to non-compliance with required specifications or/and quality standards), number of personnel and names of team leaders conducting major activities, weather and environmental conditions affecting conducted works. When no incident happened, and no major activities were conducted the words "No significant event to report" shall be noted in the log book. The logbook records shall be reviewed, approved and signed by the site supervisor on daily basis. The logbook shall be delivered to the Purchaser as a part of the FSA documentation. Nevertheless, the Purchaser reserves the right to review the logbook at any given time during the project implementation. The logbook shall be presented for review either during site visits or sent to the purchaser via email as a scanned copy. The logbook shall also meet all requirements stipulated in paragraph 13.10 of this SOW.

12.7. Disposal of Non-Reused Equipment and Structures

- 12.7.1. The Contractor shall be responsible for dismantling of all radio and computer equipment if any that will not be reused for the BCA systems, as approved in the SPDP.
- 12.7.2. The Contractor shall not dismantle any equipment existing on site not related to the BCA equipment and its installation (e.g. all surveillance/force protection systems, such as the CCTV system).
- 12.7.3. If any non-project related equipment has to be temporarily dismantled to allow works by the Contractor, it shall only be dismantled, if strictly necessary for the purpose of this project and, in this case, that equipment shall be re-installed by the Contractor and shall be in the same working conditions as before being dismantled.

12.8. Equipment Installation

- 12.8.1. The equipment listed in the schedule of supplies shall be installed and integrated by the Contractor, at the location where the equipment has been delivered according to SSS.

12.9. Interfaces

- 12.9.1. The Contractor shall provide the detailed equipment power budget and interface requirements in the SPDP and define the appropriate power supply and interface(s).
- 12.9.2. The Contractor shall specify the equipment heat load in the SPDP and define the correct cooling capacity required for cooling of the equipment area.

12.10. Installation Workmanship / Techniques

- 12.10.1. It is the Contractor's responsibility to properly connect equipment, provided under this contract, to grounding and earthing systems installed either by the Contractor. The grounding and earthing connections shall be executed in accordance with local safety regulations and respective NATO CIS Security Requirements.
- 12.10.2. The Contractor shall supply all the necessary material, labour and support equipment required to meet the specifications in the contract.

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- 12.10.3. All materials and equipment supplied by the Contractor shall be installed in strict conformity with the manufacturer's instructions and as specified by the relevant drawings and specifications.
- 12.10.4. The installation work is to be carried out by personnel specifically qualified for this kind of work.
- 12.10.5. The Contractor shall comply with all local installation guidance and safety regulations. Especially, all the electrical works that have been performed by the Contractor shall be compliant with requirements set forth in IEC-60364, Part 4, Chapter 41 ("Electrical installations of buildings, Protection for safety, Protection against electric shock").
- 12.10.6. Cables shall be segregated according to the signals they transfer (e.g. power cables shall be separated from signal cables). Power and signal cables connected to the equipment that process classified data shall be isolated in accordance with the requirements stipulated in the document listed in SOW Section 4 above (paragraph 4.1.1. g and h).
- 12.10.7. In order to minimize emission of fume and/or acid gas in case of fire, use of Low Smoke and Fume (LS0H-low smoke halogen free) cables is required (IEC 332, IEC 1034 and ASTM E 662 apply).

SECTION 13 DOCUMENTATION

13.1. Technical documentation

13.1.1. The Contractor shall provide technical documentation as covered in the various Sections of this SOW. The Purchaser will review the technical documentation and will provide comments to the Contractor within 15 working days after receiving the documents (unless specified otherwise in this SOW).

The technical documentation consists of the following main functional groups:

- a. Logistics Documentation;
- b. Training Documentation;
- c. Technical Manuals;
 - i. User Manuals,
 - ii. Maintenance Manuals,
 - iii. As-Built Drawings Technical Manuals.

13.1.2. Logistics Documentation

- a. The Contractor shall provide the various Logistics documentations as described in SOW Section 0 above in the appropriate format as described in SOW paragraph 13.3 below.

13.1.3. Training Documentation

- a. The Contractor shall develop all respective BCA system hardware and software training, organise and conduct training courses and shall provide training documentation support in order to enable the Purchaser personnel to test, operate and maintain the BCA Systems and its support equipment. These Documents shall conform to the standards outlined in SOW paragraph 13.3.

13.1.4. Technical Manuals

- a. The Contractor shall furnish BCA systems user manuals and maintenance manuals that shall be developed to respond to the requirements of the personnel in operating and maintaining the BCA systems and equipment.

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- b. The User Manuals shall be a system level document that addresses the operation of the BCA systems as a single entity. The Manual shall describe operation and maintenance of the BCA Replacement Systems/Equipment, standard trouble shooting, repair and test procedures.
- c. The Maintenance Manuals shall address the BCA systems as a single entity, with appropriate drawings, of the mechanical, electrical and electronic assemblies and sub-assemblies that comprise the BCA Replacement systems/equipment in sufficient detail to allow technical staff to maintain the system to site level. The Maintenance Manuals shall describe operation and maintenance of the BCA Systems/Equipment, standard trouble shooting, repair and test procedures.
- d. The as-built drawings shall provide full details of how all of the major assemblies of the supplied equipment have been physically installed and mechanically/electrically integrated. These drawings shall comply with the standards described in SOW paragraph .13.7.
- e. In-depth specification and lower level repair and maintenance of sub-assemblies and major system components are expected to be addressed by the Original Equipment Manufacturer's (OEM) Manuals. Operations and maintenance of the integrated system shall be addressed in the BCA User and Maintenance Manuals. The contractor shall edit, produce and deliver the required number of copies of the final versions in quantities specified in SSS and in format specified in SOW paragraph 13.3 below
- f. If changes to previously delivered documents have been made, the contractor shall deliver change pages, Replacement drawings/schematic diagrams etc. as appropriate.

13.2. The Presentation of BCA Manuals and Site Maintenance Plan

- 13.2.1. The presentation of each BCA Manual by the Contractor shall include the following subject areas:
 - a. Preface;
 - b. Equipment Descriptions;
 - c. Installation and Commissioning Instructions;
 - d. Operating Instructions;
 - e. Maintenance Instructions
 - f. Fault finding techniques;

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- g. Crypto specific issues and procedures.

13.2.2. Preface

- a. The Preface Section shall include a summary description of the concept of operation of the BCA Systems and its major constituent assemblies, subassemblies and components. The preface shall highlight major design features and restrictions. The preface shall contain a table of contents and a list of illustrations, drawings and acronyms. The preface shall also contain a section concerning Health/Safety and Accident prevention. The Health/Safety and Accident prevention section must be provided in English.

13.2.3. General Equipment Descriptions

- a. The General Equipment Description Section shall contain a listing of all the important functional and performance parameters of the BCA Replacement systems/equipment constituent assemblies, subassemblies and components. It shall include as applicable, the following:
 - i. Power consumption and ventilation data, e.g., quantity of cooling air in cubic meters per minute, temperature, vents, etc;
 - ii. Characteristics and acceptable deviations of all input signals;
 - iii. Characteristics and acceptable deviations of all outputs;
 - iv. The required external power supply voltage and frequency characteristics with acceptable tolerance;
 - v. Equipment performance and the environmental conditions over which the design performance criteria shall continue to meet;
 - vi. The overall weight of each major sub-unit;
 - vii. The overall dimensions and internal dimensions of each major sub-assembly;
 - viii. Detailed specification giving the accuracy and tolerance of built-in test equipment and facilities.

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- b. As a sub Section, the Contractor shall indicate whether there is an OEM manual that has been delivered with the system documentation. For all equipment that does not have an OEM Manual, the Contractor shall provide detailed specifications for the equipment, including drawings and diagrams as well as instructions for replacing the LRU for the equipment.

13.2.4. Installation and Commissioning Instructions

- a. The Installation and Commissioning Instructions Section shall include the electrical and mechanical information necessary for mounting and de-mounting the major assemblies, subassemblies and components of the related BCA systems/equipment constituent and step-by-step instructions for the proper installation/de-installation of the BCA Replacement Systems as a whole. Items also to be covered in this Section are:
 - i. Detailed mechanical installation instructions;
 - ii. Detailed external and inter-unit cabling instructions, including earthing and grounding connections;
 - iii. Detailed list of checks to be carried out prior to application of power for the first time;
 - iv. Detailed list of checks to be carried out following application of power and prior to putting the equipment into service. Where these checks are identical to the maintenance procedures reference may be made to the maintenance procedures, as duplication of text is not required;
 - v. List of tools, test equipment and software etc required for fault isolation, exchange and check-out of LRUs;
 - vi. Detailed sequence of instructions required to install all software in a new computer and run the software;
 - vii. All relevant administrator instructions pertaining to access control.

13.2.5. Operating Instructions

- a. The Operating Instructions Section shall include basic operating procedures covering but no limited to the following:
 - i. Switching ON power;

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- ii. Powering up the System;
 - iii. Logging;
 - iv. External communications;
 - v. Interpretation of alarm and warning conditions and associated immediate action instructions;
 - vi. Emergency procedures and back-up systems;
 - vii. Powering-down the System;
 - viii. Switching OFF the equipment;
 - ix. Emergency Switching OFF.
- b. In order to provide a comprehensive description of the operation of the BCA Replacement Systems, the Contractor shall, in this Section as applicable, provide a functional and performance description of all equipment that is visible to the operator, when deployed or in storage. The description shall cover the overall physical, electrical and electronic characteristics, as applicable, using as back-up information block diagrams, photographs or other suitable illustrations. All major assemblies shall be clearly identified, and also all operator and maintenance control panels. The function of each control and indicator shall be included in tabular form.
- c. The description shall include details of all circuits and mechanisms to permit the reader to obtain a thorough understanding of the design principles and operation of the equipment. It shall include, but not be limited to, the following:
- i. Detailed descriptions of all electrical and electronic circuits, as applicable, including circuit functions of integrated circuits where used;
 - ii. Detailed description of the mechanical construction of all assemblies and sub-assemblies including detailed descriptions of all included mechanisms;
 - iii. The purpose and associated characteristics of each variable control, and adjustable mechanism;
 - iv. All interface characteristics;

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- v. Detailed construction and servicing data to permit maintenance and replacement when necessary.

13.2.6. Maintenance Instructions

- a. The maintenance instructions section shall include, but not limited to, the following:
 - i. Maintenance operations summary for organizational, intermediate and depot level;
 - ii. Recommended test equipment;
 - iii. Procedures for performance tests.
- b. The instructions shall be provided in accordance with the following maintenance levels:
 - i. 1st LEVEL, Organizational.
 - ii. 2nd LEVEL, Intermediate.
 - iii. 3rd LEVEL, Depot.
- c. The instruction shall include a schedule of preventative maintenance operations indicating the periodicity intervals, daily, weekly, monthly, etc.

13.2.7. Fault Finding Techniques

- a. The Finding Techniques Section shall contain a description of the faults most likely to occur, with the related symptoms, comprehensive procedures for fault tracing, location and repair identifying the required test facility (BIT Equipment, test equipment, test fixtures), and any special servicing instructions.
- b. Tables shall be included stating the operating limits of all voltage supply lines and conditions of measurement. Where applicable, corresponding current limits shall be given; the average value of current taken by each stage and by each unit and/or sub-unit shall also be stated.

13.2.8. Crypto specific issues and procedures

- a. The handling, packaging and transportation of Cryptographic equipment and documentation shall comply with NATO rules and be accomplished in accordance with SDIP-293/1.

13.2.9. Site Maintenance Plan

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- a. The site maintenance plan shall collect the preventative maintenance operations of all the devices and equipment. The document shall be used by technical personnel as their principle document for their support operations. The document shall contain check list forms to be used by the personnel for logging and reporting activities.

13.3. Format Criteria

- 13.3.1. Contractor developed Documentation and Manuals shall be provided in loose-leaf form, and presented bound in stiff backed covers with 4-ringed binders that permit the removal and insertion of individual pages and drawings. The manual shall lie flat when opened at any page.
- 13.3.2. Drawings contained in the manual shall be on a pull-out sheet and so positioned on the sheet that the complete drawing is clear of the text when the sheet is opened out. As an alternative, drawings may be published in a separate volume without the pull-out feature. In either case, drawings shall not be folded more than twice and when folded be of normal manual page size. Horizontal folding shall be avoided.
- 13.3.3. Manuals shall also include a cover and title, plus a title page laid out as follows:
 - a. TOP: NATO classification of the manual and the name of the manufacturer of the equipment;
 - b. MIDDLE: Name of assembly or unit, type designation, number and name of the part of the manual and contract number;
 - c. BOTTOM: NATO classification of the manual and the number and date of approval.

13.4. Publication Criteria

- 13.4.1. The manuals, exclusive of covers shall be produced on the best grade white bond or lithographic paper. All paper used for drawings and calibration curves etc. shall be of a quality and thickness that will permit repeated folding and opening without tearing and cracking at the folds.
- 13.4.2. The individual pages in the manuals shall be Deutsches Institut für Normung (DIN) A-4 size (210 mm x 297 mm), pre-perforated and shall be so arranged and confined (including the titles and page numbers) within standard printing size margins for binding. The pages of the manuals shall be consecutively numbered.

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- 13.4.3. Each page shall contain the appropriate NATO classification of the manual at the top and bottom of each page.
- 13.4.4. All drawings and schematic diagrams are to be of the same length as other pages of the manuals. The appropriate NATO classification shall be at the top and bottom of each drawing and, in addition, each drawing shall also contain the security classification in the identification block of the drawing.

13.5. Drawings, Illustrations and Photographs

- 13.5.1. The Drawings, illustrations and photographs Section in manuals shall permit identification of the location of all assemblies and, subassemblies. The drawings shall show the interconnection of these units and how to isolate and remove the units from the System in order to replace or perform maintenance.
- 13.5.2. Where Original Equipment Manufacturer Manuals do not exist, or are inadequate in detail, inter-unit and sub-unit cabling and wiring diagrams shall be provided for all electrical and electronic assemblies; annotated line drawings shall be provided to permit identification of all mechanical assemblies and mechanisms and parts thereof. As a minimum, the following drawings shall be included:
 - a. A block diagram of the system and/or sub-systems;
 - b. A block diagram of assemblies and sub-assemblies;
 - c. A block diagram of major units;
 - d. Layout diagrams of modules and boards/CCAs;
 - e. Flow diagrams of the signals of the whole equipment with indication of adjustment and tuning parameters - voltages and wave-forms shall be shown not only for test points separately identified on the equipment, but also at all other points necessary to perform routine maintenance, fault diagnosis and corrective maintenance.

13.6. Original Equipment Manufacturer Manuals

- 13.6.1. For all assemblies, subassemblies, components and parts that the Contractor obtains from other manufacturers/vendors and incorporates into the BCA Replacement Systems and test equipment, the Contractor shall provide the OEM Operating Manuals.

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- 13.6.2. These Manuals shall provide the detailed information necessary for the BCA Operators to disassemble and assemble the units down to the lowest replaceable unit level of maintenance and provide the necessary drawings/schematics, specifications, wiring diagrams etc, to allow the operators to trouble shoot and fully understand the design and operation of the particular equipment.
- 13.6.3. OEM manuals are to supplement the BCA Operator's Manuals and thus are expected to be referenced in the latter as a way of providing the specific detail on the particular equipment. The contractor shall provide the OEM Manuals on CD-ROM and in hardcopy with exactly the same number of copies of each to the installation site together with the associated equipment.

13.7. As-Built Drawings

- 13.7.1. As-built drawings shall be self-sufficient and independent of any other documents.
- 13.7.2. There shall be a master list of as-built drawing provided for each site respectively.
- 13.7.3. The master list of as built drawings shall contain at the minimum following information: site identification and the master list title, issue of the master list, and following data reference every listed drawing: ordinal number, number, title, issue, and number of sheets.
- 13.7.4. The as built drawings shall be compiled in a drawing package for each site respectively. The compilation shall be done against the ordinal numbers assigned to every drawing in the respective master list.
- 13.7.5. The title of each drawing and each master list plus all included text and annotations shall be in English.
- 13.7.6. The number and scale of each drawing (where applicable) shall be clearly indicated, in addition to the issue number of each drawing.
- 13.7.7. Definition(s) may be given on the drawing, where used, or on a summary sheet, or sheets, at the front of the document.
- 13.7.8. All drawings shall be to a scale of not less than 1:50.
- 13.7.9. As-built drawings shall cover the following, as applicable:
 - a. All floor and wall plans to include the physical details of all installed equipment, apparatus and devices plus CW modifications and new structures implemented by the Contractor;

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- b. The physical details of all installed equipment, apparatus, devices etc., if not visibly depicted due to the original scale of the drawing, shall be presented in an appropriate scale to enable clear identification as to their type and function. If applicable, narrative description shall be inserted;
 - c. All plans and drawings necessary to represent correctly and completely antenna farms, antennas, masts, their foundations, associated cabling and ducting with connections to equipment and devices provided by the Purchaser;
 - d. Location plan with complete details of all cross-connection frames and patch panels;
 - e. A plan showing the descriptions of all grounding and earthing conductors, electrodes and joints and where they are connected to any existing earthing system;
 - f. Physical details of all cable racking and cable numbers and cable functions to include as appropriate all connections, connectors and sockets;
 - g. Details covering all wiring termination points including wire numbers and colour coding, if applicable;
 - h. Ancillary equipment details to include, as appropriate, connection points and termination points;
 - i. The functions of all inter-connecting cables, with their codes, colour code and the function of each separate conductor;
 - j. Drawings showing only an axonometric view of any given piece of equipment are not acceptable. The drawings shall depict all the necessary interconnections, inside view of installed equipment and dimensions.
- 13.7.10. An Purchaser approved "As Built Product Drawings and Associated Equipment List" are the basis for Acceptance of site installation and integration.

13.8. Format for As-Built Drawings

- 13.8.1. The drawings shall be printed on not larger than DIN A-1 sized sheets.
- 13.8.2. A consistent numbering system for the as-built drawings shall be adopted that reflects the contract, project, system, assembly and/or sub-assembly and sequence number.
- 13.8.3. The scale of all drawings shall be quoted, where applicable.

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- 13.8.4. The appropriate NATO classification shall be on the top and bottom of each drawing and, in addition, each drawing shall also contain the security classification in the identification block of the drawing, which shall be placed in the lower right hand corner.

13.9. Delivery and Verification of As-Built Drawings per Site

- 13.9.1. Before the BCA Replacement Systems are tendered for FSA, the Contractor shall deliver two complete sets of marked-up as-built documentation.
- 13.9.2. A joint review of the as-built documentation shall be conducted between the Purchaser and the Contractor.
- 13.9.3. Upon completion of the review the Contractor shall edit, produce and deliver the required number of copies of the final draft version eight (8) weeks prior to conducting the formal FSA activities. The Final version of the as-built documentation shall be delivered at FSA.
- 13.9.4. If changes to previously delivered documents have to be made, the Contractor shall deliver Replacement drawings/schematic diagrams and/or aperture cards as appropriate.
- 13.9.5. Final Version of the overall BCA level As-Built documentation shall be delivered at FSA as specified in SSS, for each BCA site.

13.10. BCA Logbooks per Site

- 13.10.1. From the start of each type of integration activities for BCA Replacement Systems, the Contractor shall keep a Logbook of all events concerning that system through to FSA.
- 13.10.2. In particular, the logbook shall record all Contractor activity and equipment performance.
- 13.10.3. All equipment failures or parts Replacements shall be documented in the logbook with a traceable means to determine reasons for failure of the specific (serial numbered) equipment.
- 13.10.4. The logbook shall be used as an input to assess the reliability of the equipment.
- 13.10.5. All logbooks shall be periodically countersigned by the Purchaser's representative and a copy handed over to the Purchaser during FSA.

- 13.10.6. The Contractor may retain the original but shall not maintain a parallel equipment-related activity logbook or similar records for company use only.
- 13.10.7. The Purchaser reserves the right to review the logbook at any given time during the project implementation. The logbook shall be presented for review either during site visits or sent to the purchaser via email as a scanned copy.

13.11. Test Procedures and Test Reports

- 13.11.1. These documents shall be produced and delivered in accordance with the requirements given in SOW.

13.12. Soft Copy Format

- 13.12.1. "Soft copies" of all documentation composed and compiled by the Contractor shall be delivered in CD-ROM or DVD format to Purchaser and shall be compatible with latest version of Microsoft Office suite maintaining compatibility with previous versions, MS Project and Portable Document Format (PDF), following a basic naming convention like [BCA]-[title]-[date"yyyy.mm.dd"]-[version]-[originator].
- 13.12.2. OEM Manuals shall be delivered in the format specified above, if available. If not available in this format, one of the other common use formats will be accepted. If the commercial documentation is not available in CD-ROM, another form of electronic media is acceptable with the prior authorization of the Purchaser PM.
- 13.12.3. As-Built Drawings shall be delivered in Visio and PDF.
- 13.12.4. The physical support of the electronic, optical or soft copies shall display the highest level of the classification of its contents.
- 13.12.5. The Header and/or Title of the directory structure of the documentation provided in soft copies shall bear a reminder of the highest classification level of its contents.
- 13.12.6. For ease of handling, unclassified documentation shall be separated from classified documentation and provided on separate CD-ROM or DVD whenever possible.

13.13. Amendments

- 13.13.1. The Contractor shall be the responsible authority for the issue, control, and distribution of amendments to delivered documentation in the format provided for the associated equipment or system until expiration of the warranty period.

13.14. Language

- 13.14.1. All deliverable documentation shall be provided in the English language. Documentation affecting Safety Hazard and health protection matters shall be delivered in English.

13.15. Manual Issuing Schedule

- 13.15.1. Two releases of manuals shall be issued for each equipment; firstly a draft version and then the final version.
- 13.15.2. The Contractor shall submit draft copies of each manual (as specified in SSS) to the Purchaser for review not later than two (2) months prior to the delivery of the BCA Replacement Systems at the first site location. Any resulting recommended changes, corrections and/or additions submitted by the Purchaser shall be incorporated and the final versions, in the requisite number of copies. The Contractor shall submit the final versions of the manuals within the time frame as specified in the SSS.
- 13.15.3. However, until the expiration of the warranty, the Contractor shall remain responsible for any changes to the manuals required as a result of any omission or inaccuracy discovered in use or, whenever changes/modifications in equipment or spare parts are made under the Contractor's responsibility. Changes to the final manual may be in the form of change pages, provided that a suitably updated change-page listing of all changes is supplied with each group of loose pages changed.
- 13.15.4. The Contractor shall deliver the final accepted copies of each manual at the time of FSA for all subsequent systems.
- 13.15.5. The Contractor shall deliver hard copies and soft copies of the BCA Operators' Manuals as specified in the SSS, separately for each BCA Site.
- 13.15.6. The format requirements of electronic media are detailed in SOW paragraph 13.12 above.

13.16. Documentation Submission Plan

- 13.16.1. The Contractor shall prepare and maintain a complete record of all documentation required under this contract. This Document Record shall be submitted as part of the Documentation and shall be continuously updated throughout the life of the Contract to reflect the current status of all documents.

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13.16.2. The Contractor shall also maintain version control of all documentation submitted throughout the Project life cycle.

13.16.3. Following documentation shall be delivered by the Contractor according to the following table, as further specified in SSS. This list does not waive the Contractor from delivering any of the documentation items specifically covered by the Contract and Purchaser approved PIP.

Document	Reference	CLIN in SSS
General Documentation (CDRL)		
Project Implementation Plan (PIP)	SOW 2.3	1.1
Site Preparation Data Package (SPDP)	SOW 12.5	3.3
Interface Control and Management Documents	SOW 4.6.1	2.3.4
System Engineering and Design Plan (SEDP)	SOW 4.2	1.1.4
System Safety Engineering Plan (SSEP)	SOW 4.3	1.1.5
As-Built Drawings	SOW 8; 10; 13	5.7
Recommended Spare Parts List	SOW 8.3	5.3.1
Recommended Tools and Equipment List	SOW 8.4	5.3.2
Site Installation Specifications	SOW 3.7	3.4
Training documentation	SOW 13; 14	5.7
User Manuals	SOW 13	5.7
Maintenance Manuals	SOW 13	5.7

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Document	Reference	CLIN in SSS
Site Maintenance Plan	SOW 13	5.7
Logistics documentation	SOW 13	5.6
Logbooks	SOW 13	5.6
Reports		
Test Procedures and Test Reports	SOW 10; 13	4
Project Checkpoint Reports	SOW 2.4	1.2
Project Progress Reports	SOW 2.5	1.3
Site Survey Report	SOW 3.6	3.2
System Requirements Review Reports	SOW 4.6	2.1.1
Detailed Design Specifications	SOW 4.6	2.3.2
Technical Design Reports (Preliminary Design Review)	SOW 4.6	2.2.1
Technical Design Reports (Critical Design Review)	SOW 4.6	2.3.1
Configuration Item (CI) Specifications	SOW 4.6.1	2.3.3
Configuration Management Plan	SOW 7.3	1.1.6
Installation Checkout Reports	SOW 10.5	3.5
Test Readiness Review Reports	SOW 10.4	4.4
Final System Acceptance Report	SOW 11.7	4.3.1

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Document	Reference	CLIN in SSS
Security Documentation		
Security Accreditation Plan (SAP)	SOW 5.4.6	1.5.1
Security Test & Verification Plan (STVP)	SOW 5.4.11	1.5.2
System Security Requirements Statement (SSRS)	SOW 5.4.8	1.5.3
System Interconnection Requirements Statement (SISRS)	SOW 5.4.10	1.5.4
Security Operating Procedures (SecOps)	SOW 5.4.9	1.5.5
Security Risk Assessment	SOW 5.4.7	1.5.6
System description	SOW 5.4.5	1.5.7
Site Security Compliance Statements	SOW 5.4.12	1.5.8

SECTION 14 TRAINING

14.1. General

- 14.1.1. The Contractor shall develop all hardware and software training, organise and conduct training courses and shall provide training support in order to enable the Purchaser/HQ MARCOM Personnel to test, operate and maintain the BCA Replacement Systems and its support equipment.
- 14.1.2. The contractor shall conduct a training programme for his responsibility area and provide the training material necessary to ensure the Purchaser's personnel gain the necessary skills and knowledge to operate, maintain and repair the respective BCA Replacement Systems/equipment.

14.2. Training Plan

- 14.2.1. The Contractor shall develop a Training Plan which shall provide detailed proposals for all Contractor provided training, including syllabuses, schedules, student prerequisites, evaluations and instructors. The Contractor's proposed format may be acceptable subject to approval by the Purchaser.
- 14.2.2. The Contractor shall prepare and submit a draft Training Plan for Purchaser's approval at least two months before start of any training. The Training Plan shall describe how the Contractor shall conduct the totality of the training.
- 14.2.3. Two (2) weeks after receipt of the Purchaser's comments, the Contractor shall deliver, for Purchaser's acceptance, the final version of the Training Plan that shall incorporate all Purchaser comments.
- 14.2.4. The final version of the Training Plan, as accepted by the Purchaser, shall be the official document against which the Contractor is expected to conduct the training.
- 14.2.5. The Training Plan shall contain a course syllabus providing the following information:
 - a. Course title;
 - b. Security classification;
 - c. Total duration in hours;
 - d. Course objectives;
 - e. General course information;

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- f. Training equipment or special equipment/tools requirements including those support equipment to be provided by HQ MARCOM (i.e. a VGA Projector and Screen, a White Board with White Board Markers and the availability of a photo copier machine);
 - g. Maximum number of student working positions; and
 - h. Classroom requirements.
- 14.2.6. The Training Plan shall provide information on the training to be provided to the site personnel. The Training Plan shall identify appropriate courses or course modules to provide initial training for site personnel and to meet specific training requirements of any test personnel, instructors or software support personnel. The Plan shall include the following information for each course:
- a. Course description. This shall be a narrative explanation of the subject matter of the specific course. The course format, objectives, and training materials shall be described in sufficient detail to ensure the students will receive required training. A proposed syllabus shall be included, detailing the subject matter to be covered. Any breakdown into modules shall be described;
 - b. Student prerequisites (if required);
 - c. Course length (including time devoted to each area of the course);
 - d. Method of presentation for each element of the syllabus (show breakdown of methods, i.e., lecture, demonstration, hands-on and directed study etc.);
 - e. Method of evaluation. Establish minimum acceptable written and performance standards and a method of evaluation of directed study. A plan shall be included to show that each student achieved at least minimum course objectives by written and performance tests;
 - f. List of training material and training equipment required (contractor-provided documents or materials shall be included). This shall include the appropriate standards for electronic data;
 - g. Recommended maximum size of course. Recommended location of training and type of facility required (i.e., classroom, auditorium, facility, etc.);
 - h. Proposed schedule for training course;

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- i. Relationship to related programme milestones and to Test & Evaluation schedule;
 - j. Number of hours of "hands-on" training to be provided to each student.
- 14.2.7. Where commercial courses are proposed, the Training Plan shall include as much of the information required in previous paragraphs as is available, together with a justification for using the commercial course.
- 14.2.8. The Training Plan shall contain the Curriculum Vitae (CV) of each proposed instructor.

14.3. Training Program

- 14.3.1. For the training purposes, student groups shall include the personnel assigned for the following standard posts of a BCA Replacement System, of which definitions and tasks are set forth in SOW Annexes.

Student Groups	Posts of BCA Replacement-System
	System Administrator
	System Controller
	Radio Operator
	Vetting Officer Assistant Vetting Officer
BCA Replacement Maintainers	System Technicians
BCA Replacement-supporting equipment maintainers / operators	ALL

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- 14.3.2. The training program shall consist of courses proposed by the Contractor, and agreed with the purchaser, to ensure that the training provided at the different levels outlined here below allows Control, Operation and Maintenance in accordance with the Operational requirements and Maintenance concept.

Required level of knowledge	Type of the course		
	Operators	Maintainers	System Administrators
BCA Replacement system administration	No	No	Yes
BCA Replacement-supporting equipment maintainers / operators	Yes	Yes	Yes

Note: ¹⁾ The Purchaser may decide that the BCA Replacement- supporting equipment maintainers / operators are the same. As a general rule, all Instructors participate in the normal training courses. The Instructors for Operators are expected to be System Administrators.

14.4. Training Courses

14.4.1. Training for System Administrators:

- a. The Contractor shall conduct training for the BCA Replacement System Administrator Personnel. The related training material shall be delivered in accordance with the SSS of the VLF BCA project.
- b. The training shall cover all aspects required to administer, configure and operate the BCA Replacement Systems and any of its sub-systems taking into consideration the privileges and authorizations of the System Administrators.
- c. It shall include as necessary Control aspects, all Operational and hardware and software configuration aspects.
- d. After the training, the System Administrators shall be able to operate, configure and administer the BCA Replacement systems hardware and software at the relevant locations.
- e. The Contractor shall recommend the number of courses to be held for all personnel to be trained. All training shall be held at the main HQ MARCOM location (Northwood).
- f. Exact dates for the courses shall be mutually agreed by the Parties and shall be consistent with the requirements of the SSS.

14.4.2. Training for Test Personnel:

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- a. The Test Personnel are the personnel designated by HQ MARCOM to participate in the VLF BCA test and evaluation activities.
- b. The Contractor shall provide training for the Purchaser's test personnel that will participate in the VLF BCA test and evaluation activities. The contractor shall provide specific training for test personnel immediately before the start of tests. The training for test personnel shall cover test methods, test procedures and test equipment used during acceptance tests. This training shall provide the trainees with the skills needed to use the appropriate tools in all the tests involving Purchaser participation.
- c. Exact dates for the courses shall be mutually agreed by the Parties and shall be consistent with the requirements for conducting tests as required either during the FAT or SAT.

14.4.3. Training for Operators:

- a. The Contractor shall conduct training for the BCA Replacement Operator Personnel. The related training material shall be delivered in accordance with the SSS of the VLF BCA project.
- b. The Purchaser will conduct training for the BCA Replacement operator personnel at the main HQ MARCOM site (Northwood).
- c. The training shall cover all aspects required to operate BCA Replacement equipment and software and any of its sub-systems. It shall include as necessary control aspects for all operational features of hardware, firmware and software of the system.
- d. After the training, the Operators shall be able to operate the BCA Replacement systems at their locations within HQ MARCOM.
- e. The Contractor shall recommend the number of courses to be held for operator personnel to be trained.
- f. Exact dates for the courses shall be mutually agreed by the Parties and shall be consistent with the requirements of the SSS.

14.4.4. Training for Maintainers:

- a. The Contractor shall conduct training for the VLF BCA Maintenance Personnel. The related training material shall be delivered in accordance with the SSS of the VLF BCA project.

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- b. The training shall cover all aspects required to configure, maintain and trouble shoot the BCA Replacement Systems and any of its sub-systems. It shall include as necessary control aspects for all hardware, firmware and software maintenance aspects.
- c. After the training, the Maintainers shall be able to configure, maintain and trouble shoot the respective hardware, firmware and software of BCA Replacement System at HQ MARCOM.
- d. The Contractor shall recommend the number of courses to be held for all personnel to be trained. All training shall be held at the HQ MARCOM Northwood.
- e. Exact dates for the courses shall be mutually agreed by the Parties and shall be consistent with the requirements of the SSS.

14.5. Instructor Training (Train the Trainer)

- 14.5.1. Instructors are the personnel designated by the installation site among all personnel of BCA Replacement Systems.
- 14.5.2. For each course provided for personnel as per SOW paragraph 14.3.2 above, the Contractor shall also provide equivalent training for Instructors designated by the Installation Site. Additional course modules shall provide the instructors with the necessary knowledge and skills to maintain the training material and material up-dates provided by the Contractor.
- 14.5.3. The training shall cover all aspects required to operate and maintain the BCA Replacement Systems.
- 14.5.4. It shall include all the required Control aspects, all Operational and hardware and software maintenance aspects.
- 14.5.5. After the training, the Instructors shall also be able to perform all follow-on Training courses for Personnel at all levels.

14.6. Duration of Training courses

- 14.6.1. For all Training courses, the contractor shall recommend the course length in the training Plan to be submitted, which will be subject to Purchaser acceptance.
- 14.6.2. The Contractor shall assume that the daily course instruction shall not exceed six (6) hours per day (excluding lunch).
- 14.6.3. Courses shall only be scheduled on normal working days and not on weekend or public holidays.

14.7. The Installation Site Personnel Qualifications

- 14.7.1. The installation site personnel will have the following qualifications:
- a. Operators will have or will acquire knowledge of specific Operating Systems and Tools;
 - b. Maintainers will have or will acquire knowledge of digital Radio technology;
 - c. System Administrators will have or will acquire knowledge of specific Operating Systems and Servers and will also be instructed in digital radio and transmission techniques;
 - d. System Administrators and Operators will have or will acquire Allied Communications Publication (ACP) ACP127 knowledge.
- 14.7.2. It is the responsibility of the installation site to assure that the students meet the requirements of SOW paragraph 14.7.1.
- 14.7.3. The training for installation site personnel shall be developed on the assumption that they are military operators with a minimum electronics and/or information technology background as stated.

14.8. Language Qualifications

- 14.8.1. It can be assumed that personnel selected to attend the courses will meet the minimum Standardized Language Proficiency (SLP) of 2222 in English corresponding to NATO STANAG 6001.

14.9. Contractor Instructors

- 14.9.1. The qualification of the Contractor instructors shall be addressed apart from the confirmatory terms. Contractor instructors shall be certified engineer/technicians, thoroughly familiar with the subject matter. They shall have experience in preparing and conducting training.
- 14.9.2. The instructors shall meet a minimum of SLP 4444 in English corresponding to the NATO STANAG 6001.
- 14.9.3. All instructors shall have a security clearance of "NATO SECRET".

14.10. Training Material

- 14.10.1. The Contractor shall prepare and submit in advance to the Purchaser all material that will be used for the training. The Purchaser approved training material shall be available before the courses start.
- 14.10.2. Training material shall be designed and developed to be suitable for use during the Contractor-conducted training and for the future training of all categories of Replacement personnel by Site Installation Instructors.
- 14.10.3. The package shall include the following capabilities as a minimum:
 - a. Definition of the Final training objectives;
 - b. Emulation of the real equipment behaviour;
 - c. Topics to be covered for each lesson, step and point;
 - d. For each topic, video clips, animation, still photos and test as necessary for the full explanation of the topic;
 - e. Exercises for every lesson;
 - f. Test at the end of every lesson;
 - g. Results of the tests per lesson and per course;
 - h. Evaluation of the quality of the course by relating the test results to the course objectives in a cumulative statistical analysis.
- 14.10.4. The Contractor shall make maximum use of available technical manuals for the preparation of training material.
- 14.10.5. Training material shall not duplicate any information readily available in other documents unless justified by specific training needs and shall adhere to documentation standards as per SOW 0 above.
- 14.10.6. HQ MARCOM will provide the necessary facilities (i.e. Training room) and support equipment for training (i.e. a VGA Projector and Screen, a White Board with White Board Markers and the availability of a photo copier machine) as stated in the approved Training Plan.

14.11. Training Documentation

- 14.11.1. Training documentation provides the minimum documentation required to conduct and maintain the training programme. Training documentation includes data in electronic media and in hardcopy as appropriate.

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- 14.11.2. The Contractor shall provide training handbooks for each training course.
- 14.11.3. The training handbook shall be used as the student's main working document.
- 14.11.4. The training handbook shall provide the student with necessary information on all lesson objectives and contents, guidance for all learning activities and cross-references to assist the students in achieving the course objectives.
- 14.11.5. The instructor guide shall be a complement to the training handbook.
- 14.11.6. The instructor guide shall contain all necessary information to prepare, conduct and evaluate lessons, exercises and examinations. This shall include fault-finding or fault-isolation exercises and classroom or practical examinations with the associated answers.
- 14.11.7. The documentation shall contain sufficient instructions to guide students through all specified training. Existing manufacturer's training and service manuals, preferably in electronic format, can be used in so far as they meet specified requirements. The training documentation should be for students with the prerequisite knowledge of similar equipment or relevant theory, use of general electronic test equipment and a basic knowledge of hand tools. Training documentation stored in an electronic database shall meet the requirements set forth in the contract Statement of Work and Procurement Specification(s), ensuring that the areas discussed below are accessible and completely detailed. Instructions shall be provided on how to electronically access database information.
- 14.11.8. Format: Contractor's format is acceptable subject to Purchaser approval.

14.12. Review and delivery of the material

- 14.12.1. All training material prepared and delivered under this contract shall be subject to review and approval by the Purchaser.
- 14.12.2. The Contractor shall deliver the following documentation for each type of training to the Purchaser for review sufficiently in advance to allow for coordination/negotiation of any necessary changes in the early stages of development of the material:

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- a. A representative lesson plan from each of the proposed training handbook;
 - b. The corresponding sections from the Instructor Guide;
 - c. Any supporting aids.
- 14.12.3. The Contractor shall subsequently submit two complete sets of draft training material within two (2) months prior to the start of the first training course to permit the Purchaser to review them.
- 14.12.4. The Purchaser will review the material for not more than one (1) calendar month and provide to the Contractor comments and requests for revisions as appropriate.
- 14.12.5. The Contractor shall deliver the final version of the training material to the Purchaser not later than two (2) weeks prior to the start of the first training course.
- 14.12.6. The course material shall be designed to guide the students in obtaining the required skills through the training programme concerned. The course material shall provide adequate information about the sections listed below. Relevant sections shall include a number of exercises to evaluate student understanding of information provided in that section. Each section may refer the student to other supplemental written or audio-visual material (e.g. transparencies, charts, computer discs, DVD format video, or other commercially available electronic medium in the appropriate NATO/European format), which shall be included in the package. Additional topics and material can be added. Course material shall include the following sections, as appropriate:
- a. Required Material. Data indicating all equipment and material required by the student, including test equipment, audio-visual material, tools, and supplies;
 - b. General information about the system, software or equipment for which the training will be carried out;
 - c. Installation and preparation instructions;
 - d. Operating information, covering all personnel who interface with the system concerned, during all phases of its use;
 - e. Technical description;

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- f. Hardware Maintenance, covering routine inspections and adjustments, preventive maintenance and corrective maintenance (troubleshooting and repair) at relevant maintenance levels;
 - g. Software Maintenance, covering system recovery following software problems on-site and in-depth adaptive, perfective and corrective software maintenance at the responsible support site;
 - h. System Management, including the system manager functions and all other specialised areas, such as security, database, network and communications management;
 - i. Reference data.
- 14.12.7. Instructor Material: Guidance for instructors shall be provided. The guidance shall include.
- a. Student exercises and all answers and other marking guidance.
 - b. Descriptions of points where instructor involvement, observation, or action is necessary or recommended to ensure safety or verify student performance.
 - c. Instructional malfunctions to be introduced by the instructor and diagnosed and repaired by the student. A minimum of three malfunctions is required for each separately identifiable system, module or circuit. The malfunctions should approximate as nearly as possible, problems likely to occur, and may consist of a combination of system maladjustments and bad components. A listing of malfunctions will be given that shall include:
 - i. Action required by instructor to install malfunction; exact component or module to replace or maladjustment to make;
 - ii. Description of symptom caused by malfunction;
 - iii. Test equipment and tools required to detect and isolate the malfunction or procedures required to recover software functionality;
 - iv. Suggested allowable time for student to diagnose malfunction;

14.13. Presentation by Trainer

- 14.13.1. The Contractor shall be prepared to provide demonstration lessons, randomly selected by the Purchaser in order to provide evidence of the preparedness of the lessons and capabilities of the Instructor.
- 14.13.2. The Purchaser can require this demonstration at a mutually agreed time prior to the commencement of any formal training.

14.14. Quantities

- 14.14.1. The Contractor shall deliver the following quantities of training documentation for each type of training. This is in supplement to what needs to be provided for each student (E= Electronic, P=Printed Version):

Type	Draft Qty	Final Qty
Instructor guide	2 E	1 E + 5 P
Student handbook	2 E	1 E + 5 P
Instructor guide for Train the Trainer	2 E	1 E + 2 P
Student handbook for Train the Trainer	2 E	1 E + 2 P

- 14.14.2. An additional copy of each type of training documentation shall also be provided, in accordance with the provisions stated in SOW paragraph .13.12.

14.15. Training Management

- 14.15.1. At least two calendar weeks prior to the start of a course the Contractor shall provide a written certification that all required/agreed training staff, facilities, equipment and other resources are ready for the conduct of the training.
- 14.15.2. The Contractor shall submit to the Purchaser a course report written within two weeks after completion of the course. This report shall contain:
 - a. Course designator;
 - b. Course start date;
 - c. Course Completion date;
 - d. Names of attending students.
 - e. Student attendance and performance record;
 - f. Individual test results;
 - g. Student course critique;

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- h. Actions taken or recommended;
 - i. Problems encountered (if any).
- 14.15.3. The performance record shall be based on the results of regular test(s) performed by the trainees during/after the training courses to evaluate the understanding of the lecture.
- 14.15.4. The Contractor shall provide each successful student at the end of the courses with a personal certificate. One copy of each certificate shall be submitted to the Purchaser.
- 14.15.5. The Contractor shall not release students from the course without the prior approval of the Purchaser's Representative.
- 14.15.6. The Contractor shall accept that the Purchaser can nominate up to two (2) members of the Project Team or NCI Agency, to attend each course in a monitoring role; such attendees will be additional to the planned course size.
- 14.15.7. The training shall be assisted by threshold knowledge test(s) for nominated personal. If the total test results represent 50%, or more, fail results, the Contractor shall report that fact to the purchaser and repeat the concerned lecture(s) at no additional costs.

14.16. Trainee and Training Course Completion Report and Certificates Of Training

A Certificate of Training shall be completed for each trainee who satisfactorily completes the conducted course. The certificate shall contain, as a minimum, the following:

- i. Name of organisation conducting the training;
- ii. Title of the course;
- iii. Subject matter, if not apparent from the course content;
- iv. Location where the course took place;
- v. Dates of the course;
- vi. Rank/grade of trainee;
- vii. Parent unit of trainee;
- viii. Statement of satisfactory (or better) completion of the course;
- ix. Any specific certification resulting from the course;

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- x. Signature and name of responsible training officer.

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APPENDIX 1

Appendix 1 to Book II Part IV

ABBREVIATIONS/ACRONYMS

A

A/C	Analysis/Certification
ABL	Allocated Baseline
ACMP	Allied Configuration Management Publication
ACMS	Automated Control and Management System
ADP	Automatic Data Processing
AMSG	Allied Military Security Guidelines
AOM	Alliance Operations and Missions
AOR	Area of Responsibility
ARQ	Automatic Repeat Request
ASTM	American Society for Testing and Materials
ATE	Automated Test Equipment

B

BCA	Broadcast Control Authority
BCS	Broadcast Control Station
BER	Bit Error Rate
BIT	Built In Test
BOD	Beneficial Occupancy Date
BRS	Broadcast Radiating station
BSS	Broadcast Support Site

C

C2	Command and Control
CALS	Computer-aided Acquisition and Logistic Support
CAT	Computer Aided/Assisted Training
CBT	Computer Based Training
CC	Configuration Control
CCA	Circuit Card Assemblies
CCTV	Closed-circuit Television
CDR	Critical Design Review
CE	compromising emanations
CI	Configuration Item
CID	Configuration Identification and Documentation
CIS	Communications and Information Systems
CISS	Communication Interface and Switching System
CLD	Central Logistics Depot

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CLIN	Contract Line Item Number
CLS	Contractor Logistic Support
CM	Configuration Management
CO	Contracting Officer
CoC	Certificate of Conformity
COLOC	Change of Location of Command
COTS	commercial off the shelf
CP	Capability Package
CSA	Configuration Status Accounting
CSN	Commander Submarines NATO
CSR	Configuration Status Report
CSRS	Community Security Requirement Statement
CSSU	CIS Sustainment Support Centre
CSU	CIS Support Unit
CUN	Common User Network
CUR	Crisis Response Operations Urgent Requirement
currents	conducted interferences
CW	Civil Works
D	
DDS	Detailed Design Specifications
DEM	Demonstration
DHS	Delivery of Hardware on Site
DIN	Deutsches Institut für Normung
DTS	Data Terminal Set
E	
ECP	Engineering Change Proposal
EDC	Effective Date of Contract
EDCN	Equipment Design Change Notice
EMC	Electromagnetic Compatibility
EMI	Electromagnetic Interference
EMI/EMC	Electromagnetic Interference and Compatibility
EN	European Norms
EPDP	Electrical Power Distribution Panels
EU	European Union
F	
FAT	Factory Acceptance Test
FBL	Functional Baseline
FCA	Functional Configuration Audit
FES	Fire Extinguishing System
FIP	Fleet Interface Point
FSA	Final System Acceptance
FSA	Final System Acceptance

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G

GQAA Government Quality Assurance Authority
GSM Global System for Mobile Communications

H

HF High Frequency
HMI Human Machine Interface
HQ Headquarters Maritime Command, Northwood, GBR
MARCOM
HQ Alternate Headquarters Maritime Command, Whitehall, GBR
MARCOM

ALT

H&S Health and Safety
HVAC Heating, Ventilating and Air Conditioning

I

IAW In accordance with
ICOA International Civil Aviation Organization
IEC International Electronical Commission
IETM Interactive Electronic Technical Manual
IFB Invitation for Bid
INFOSEC Information Security
IS Inspectable Space
ISAT Individual Site Acceptance Test
IT Information Technology

L

LAN Local Area Network
LP Logistics Plan
LRU Lowest Replaceable Unit
LSF Low Smoke and Fume

M

MIL Military
MIL-STD Military Standards
MOD Ministry of Defence
MPDB Main Power Distribution Board
MPS Message Processing System
MSK Minimum Shift Keying
MTBF Mean Time Between Failure

N

NATO North Atlantic Treaty Organisation
NB PSS No Break Power Supply Sub-System
NCI Agency NATO Communications and Information Agency
NDN National Defence Network

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NGCS	NATO General Communication System
NLT	Not Later Than
NQAR	National Quality Assurance Representative
NSN	NATO Stock Number
O	
OAE	Operation Active endeavour
OEM	Original Equipment Manufacturer
OJT	On-the-Job Training
OPCON	Operational Control
ORLA	Optimum Repair Level Analysis
OTAM	Off The Air Monitoring
OU	Operating Unit
P	
PABX	Private Branch Exchange
PAI	Preliminary Acceptance Inspection
PC	Personal Computer
PCA	Physical Configuration Audit
PMCP	Project Management and Control Plan
PCR	Project Checkpoint Report
PDF	Portable Document Format
PDR	Preliminary Design Review
PERT	Program Evaluation Review Technique
PFE	Purchaser Furnished Equipment
PIP	Project Implementation Plan
PLF	Power Line Filter
PM	Project Manager
PMI	Prevention of Mutual Interference
PMP	Project Management Plan
PMS	Project Master Schedule
PPM	Project Progress Meeting
PPM	Project Progress Meetings
PPR	Project Progress Report
PSS	Power Supply System
PTO	Project Team Organisation
PWBS	Project Work Breakdown Structure
Q	
QA	Quality Assurance
QC	Quality Control
R	
RAMP	Risk Assessment and Management Plan
RAMT	Reliability, Availability, Maintainability and Testability
RCD	Residual Current Detectors

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RF	radio-frequency
RFD	Requests for Deviation
RFW	Requests for Waiver
RON	Repair On Need
RPM	Revolutions per Minute
RSC	Remote Supervisory and Control
RSPL	Recommended Spare Parts List
RTTL	Recommended Tools and Test Equipment List
Rx	Receiving
S	
SA	Security Accreditation
SAP	Security Accreditation Plan
SAT	System Acceptance Test
SB PSS	Short Break Power Supply Sub-System
SDD	System Design Document
SDIP	(SECAN) Doctrine and Information Publications
SECAN	Military Committee Communication and Information Systems Security and Evaluation Agency
SecOps	Security Operating Procedures
SEP	System Engineering and Design Plan
SIRS	System Interconnection Requirement Statement
SIS	Site Installation Specifications
SIS	Site Installation Specifications
SLP	Standardized Language Proficiency
SMC	Service Management and Control
SNMP	Simple Network management Protocol
SOI	Start of Installation
SOP	Standard Operating Procedure
SOW	Statement of Work
SPD	surge protection devices
SPDCN	Spare Parts Design Change Notice
SPDP	Site Preparation Data Package
SSEP	System Safety Engineering Plan
SSR	Site Survey Report
SSRS	System Security Requirement Statement
SSS	Schedule of Supplies and Services
STANAG	Standardization Agreement
STVP	Security Test & Verification Plan
SITP	System Installation Transition Plan
SUCOC	Succession of Command
T	
TAT	Turn Around Time

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TDS	Test Data Sheet
THD	Total Harmonic Distortion
TNA	Training Needs Analysis
Tx	Transmitting
U	
UAP	User Acceptance Plan
UPS	Uninterruptible Power Supply
V	
VDC	Volts of Direct Current
VLF	Very Low Frequency
VMSS	Voice Management Sub-System
W	
WBS	Work Breakdown Structure
WS	Workstation
WSM	Water Space Management

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**NATO Very Low Frequency Minimum Shift Keying Broadcast
Control Authority
Communication Equipment Replacement**



**BOOK II
PART IV**

ANNEX A

**SYSTEM REQUIREMENTS
SPECIFICATION**

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SECTION 1 INTRODUCTION

1.1. Background

- 1.1.1. The Broadcast Control Authority (BCA) is a portion of the NATO VLF MSK system, which is a 'Mission Critical System' (A system that directly supports or escalates command, control, safety, and intelligence functions essential for the successful execution of the operational mission). It is particularly vital for dissemination of Water Space Management (WSM) and Prevention of Mutual Interference (PMI) information.
- 1.1.2. The purpose of this document is to specify the System Requirements of the BCA portion of the VLF System operated by COMSUBNATO on behalf of HQ MARCOM at the primary location Northwood, GBR. HQ MARCOM also operate an Alternate SUBOPAETH facility located at Whitehall, GBR that is not included in the scope of this project. Further details regarding these sites can be found at Book II Part IV Annex B.

SECTION 2 GENERAL VLF SYSTEM CHARACTERIZATION

2.1. General Description

- 2.1.1. The NATO VLF MSK system comprises three regional BCA and Broadcast Control Stations (BCS) located in GBR, DEU and NOR. Broadcast Radiating Stations (BRS) are available in DEU, ITA, NOR, GBR and TUR.
- 2.1.2. As a result of the need to support effective Command and Control (C2) of submarines assigned to NATO OPCON, the system has a high degree of availability built into the design and architecture of the system.
- 2.1.3. The BCA provides computer automation of broadcast preparation ensuring ease of process for the operator thus reducing manpower requirements.
- 2.1.4. The BCA provides sophisticated message handling with comprehensive trace facilities. Data is stored for 100 days to support accountability.
- 2.1.5. The current system consists of Commercial Off the Shelf (COTS) hardware and other hardware and software designed and developed by the Italian company SIRT.I.

- 2.1.6. The main hardware components of the BCA are the Server Rack, Multiplexer Rack, Fiber Optic Module rack and Workstations. These are described as follows:
- a. The Server Rack (Rack A) represents the Host of the BCA system and is a server machine with cluster solutions. Storage disks in a RAID configuration are the main part of this functional block.
 - b. The MUX Rack (Rack B) is the Multiplexer that acts as the interface between the Host and the external devices of the BCA System. The function of this interface is routing all the messages coming from the Host to external lines of the system.
 - c. The Fiber Optic Rack (Rack C) allows the connection between the BCA system and the crypto devices which perform encryption and decryption of messages to and from the BCS via a Crypto Distribution Unit (PCU/VERSIMUX).
- 2.1.7. The software used is W2K server edition (server) and W2K operating system (Multiplexer and Workstations), both of which are no longer supported by Microsoft. Other items utilize software provided by ORACLE, which is no longer supported.
- 2.1.8. The BCA Workstations are designed and configured to work with the bespoke VLF software. Modern Workstation components are not compatible with this software, specifically Internet Explorer V5.
- 2.1.9. For the hardware, many of the items are no longer supported. These include the CPU's, Administrators, RAM, Floppy Disk drive, CD ROM, RAID and HDD's. The multiplexer uses FPGA and USB components that are no longer manufactured.
- 2.1.10. The BCA interfaces with crypto devices and the BCS to pass the encrypted broadcast keystream to other regions BCS or BRS. It also receives the Over-the-Air-Monitoring (OTAM) from the BCS for decryption and delivery to the operator for character comparison and to provide the SUBOPAUTH evidence of successful transmission.
- 2.1.11. The BCA shall contain an automated message handling function for interconnection with NATO and National messaging systems. This function shall analyse all incoming messages and segregate them into separate message queues for;
- a. Messages addressed to submarines for authorisation for inclusion on a broadcast.

- b. Messages concerning co-ordination of NATO submarine broadcasts.
 - c. Messages concerning communication services.
- 2.1.12. The BCA shall contain a broadcast vetting function. This function will enable Vetting Officers to originate messages, to edit received messages and to authorise selected messages for inclusion on the broadcast.

SECTION 3 OPERATIONAL OBJECTIVES FOR THE BCA IMPLEMENTATION

3.1. Purpose

- 3.1.1. The overall operational requirement for a BCA system is to provide the automation and enhancement of the services described in subsequent sections at the HQ MARCOM site.
- 3.1.2. Provide HQ MARCOM with a functional and sustainable Broadcast Control Authority in order to support Command and Control of NATO submarine operations.
- 3.1.3. To provide enhanced broadcast communications between Submarine Operating Authorities (SUBOPAETH) and submarines at sea.
- 3.1.4. To provide reliable and flexible communications within the NATO operational Area of Responsibility (AOR) with a 365 24/7 availability.

SECTION 4 PARTICULAR VLF BCA REPLACEMENT DESCRIPTION

4.1. Proposed solution:

- 4.1.1. The proposed solution shall
 - i) Replace the BCA as shown in Fig 2 with modern and upgradeable hardware at the HQ MARCOM site.
 - ii) Replace the BCA Software with a modern and upgradeable operating system at the HQ MARCOM site.
 - iii) Replace operator Workstations with modern IT hardware.
- 4.1.2. The main consideration is that the BCA computer replacement must employ equipment (hardware and software) of proven reliability and latest design to meet operational performance, security and availability requirements.
- 4.1.3. The BCA computer replacement must provide the flexible functionality of the current system in order to provide communications to submarines in the NATO operational areas on a 24-hour basis. This includes reliability and availability of no less than 99.99%.

- 4.1.4. To achieve the reliability required at 4.1.3 the current equipment utilizes standby equipment that acts as a slave which is constantly updated via an inter-processor function. This facility should be replicated in the replacement system in order to provide operation at different locations. Update of the BCA may be achieved by network connection.
- 4.1.5. Where appropriate, COTS hardware and software will be utilized in order to reduce life cycle costs and to meet sustainment requirements, which are expected to be 10 years.
- 4.1.6. The BCA shall contain an automated message handling function for interconnection with NATO and National messaging systems.
- 4.1.7. The BCA must be able to generate up to 8 plain language keystreams for on-line encryption by cryptographic equipment.
- 4.1.8. Must minimize manning requirements by the use of optimum processor controlled automation.

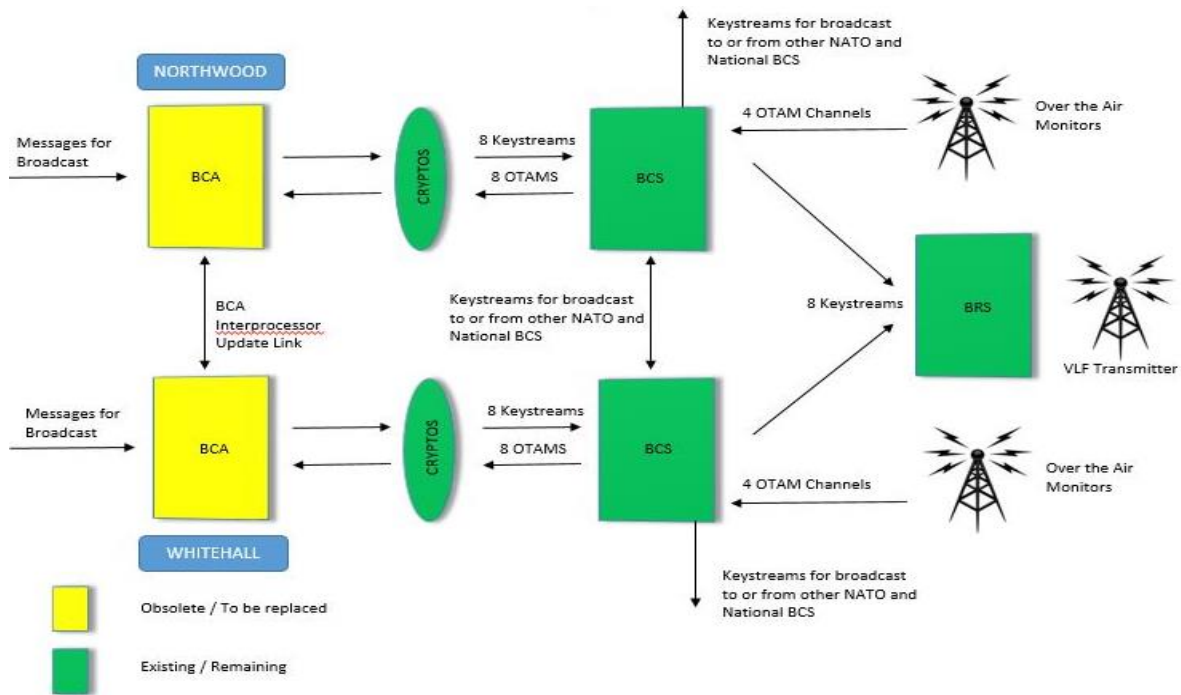


Figure 1 - Large Scale Overview of the NATO VLF System

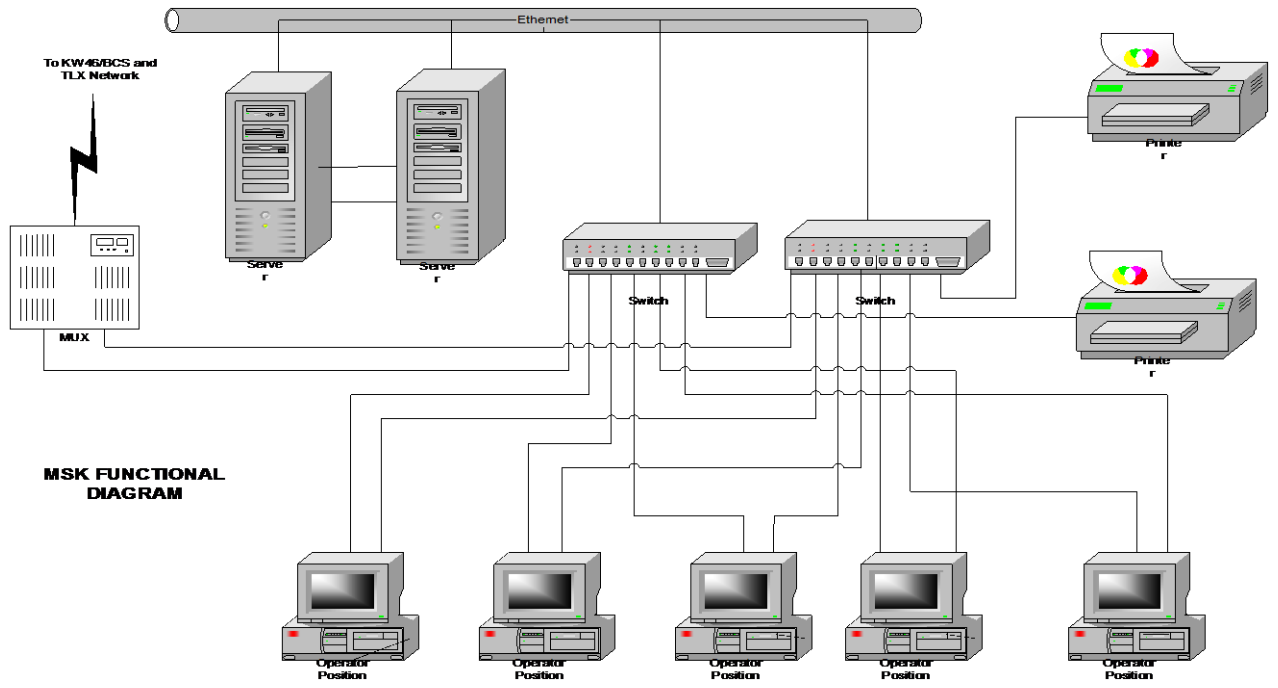


Figure 2 - Current BCA System Hardware

SECTION 5 SYSTEM FUNCTIONAL DESCRIPTION

5.1. Intended Use

- 5.1.1. Any replacement will have the same or better performance characteristics of the current BCA.
- 5.1.2. The BCA computer replacement should employ equipment (hardware and software) of proven reliability and latest design to meet operational performance, security and availability requirements.
- 5.1.3. The software solution will at a minimum meet the current requirements (operator profiles, accountability, security, message storage and message retrieval etc.) in order to meet the CIS prerequisites of submarine C2 provision.

5.2. Interoperability

- 5.2.1. The technology solution must be interoperable with all components of the current VLF system, i.e. message handling lines, crypto devices¹ and BCS/BRS.
- 5.2.2. The BCA computer replacement must provide the exact, or better, functionalities of the current system in order to support communications to submarines in the NATO operational areas on a 24-hour basis.

5.3. Modes of operation

- 5.3.1. The NATO VLF MSK modulated broadcasts are compiled for STANAG 5030 Edition 4².

5.4. Scalability and sizing

- 5.4.1. This project covers the BCA hardware and software at Headquarters Maritime Command (HQ MARCOM). COMSUBNATO is the NATO Submarine Operating Authority (SUBOPAETH) executing their duties under the command of HQ MARCOM at the primary site at Northwood, GBR.
- 5.4.2. It is anticipated that hardware replacement size will be smaller than the current architecture.

¹ The current device is KWR/KWT-46. NATO will introduce a new device within the next 2 years, which will most likely be KIV-7M.

² The use of STANAG 4724 in the future should be considered for future interoperability but the primary use of the BCA will be in STANAG 5030 Edition 4.

SECTION 6 SOFTWARE FUNCTIONAL DESCRIPTION

6.1. BCA System Security

- 6.1.1. The BCA system will be designed and implemented in accordance with NATO Trusted System Class C2 Controlled Access Protection. The processing system will limit access to authorised users only, will limit facilities and resources to certain users and will make all users individually accountable for their actions through login procedures and auditing/tracing of security related events.

6.2. BCA Operator Positions

- 6.2.1. The current operator profiles consist of System Administrator (SA), Vetting Officer (VO), Assistant Vetting Operator (AVO) and Radio Operator (RO).
- 6.2.2. **SA Position:** The System Administrator function will have overall control of the system domain and all of the operator accounts within. The System Administrator will have the ability to control and organise permissions on all user accounts within the BCA domain. The SA is also responsible for the management and configuration (i.e. OS administration, network configuration) and user administration and configuration (i.e. user accounts and profiles, security management and profile permissions).
- 6.2.3. **VO Position:** The Vetting Officer's function will enable the Vetting Officers to exercise executive control of the automated functions required for broadcast vetting an.
- 6.2.4. **AVO Positon:** Is assigned to support the VO position in executing their duties for broadcast vetting.
- 6.2.5. **RO Position:** This function will enable the Radio Operator to handle messages which are not recognised by the processor for inclusion in one of the traffic queues.
- 6.2.6. It is not a requirement of the new software to maintain this profile structure but any functions described hereafter must be executable within the new BCA software.

6.3. BCA Software Main Functions

- 6.3.1. **Compiler:** The BCA will contain an automated submarine broadcast compiler function that covers broadcast states Alfa to Golf. This function will accept all vetted-on messages and will allocate each message to a specific schedule of broadcasts in accordance with BCA parameters.
- 6.3.2. **Broadcast Function:** The BCA will contain an automated Broadcast function. This function will generate, at pre-determined times, traffic keystreams for on-line encryption.
- 6.3.3. **Retrieval Facility:** The BCA will contain an information retrieval function. This function will enable retrieval of all programs, data, signal messages and monitored keystreams stored by the BCA. This should be based on the current modern windows based search, copy and paste functionality
- 6.3.4. **Tracing Accounting and Statistics:** The BCA will contain a message tracing, accounting and statistics function. The tracing function will allow the tracing of a message within the processing system. The accounting function will maintain records of all hard copies of messages classified NATO SECRET or NATO CONFIDENTIAL that are printed by the system. The statistics function will provide general statistics of all transactions of in/out messages and broadcast functions.
- 6.3.5. **Interprocessor Update:** The BCA will contain an automated processor up-date function. This function will ensure that broadcast compilation and keystream functions at the standby system operate in parallel with those at the operational system so that, in the event of a failure of equipment at the operational system, the equipment at the standby system can be brought on-line with the minimum interruption to operations. The interprocessor update must be automatically able to detect a failure in the link from the 'operational' processor and be able to switch to the 'standby' processor, or secondary, avoiding manual intervention as is currently the case.
- 6.3.6. **OTAM (Off the Air Monitoring) Facility:** The BCA will contain an automated off-the-air monitoring function. This function will compare, on a character by character basis, an on-line decrypted copy of each radiated broadcast with stored copies of the traffic keystreams generated by the Broadcast function, giving appropriate warning to the user in order to take further actions (i.e. to retransmit the messages).
- 6.3.7. **System Logging Facility:** The BCA will contain a record function for maintaining records of Control Logs, Message transaction files and service message logs.

- 6.3.8. **BITE Function:** The BCA will contain a built-in test function. This function will alert the System Administrator to the detection of a failure and will indicate the effect of any malfunction.
- 6.3.9. **System Registers:** The system should be capable of maintaining system records, system tracing, user accountability and system statistics.
- 6.3.10. **System Administration:** The System Administrator function will have overall control of the system domain and all of the operator accounts within. The System Administrator will have the ability to control and organise permissions on all user accounts within the BCA domain. The SA is also responsible for the management and configuration (i.e. OS administration, network configuration) and user administration and configuration (i.e. user accounts and profiles, security management and profile permissions).

6.4. Broadcast Preparation and Transmission

- 6.4.1. The authority responsible for managing the distribution of messages to be broadcast is the Vetting Officer (VO). The Vetting Officer can delegate certain tasks to an Assistant Vetting Officer (AVO). However, only the SA may make changes to the database in order to pass the appropriate information and to deliver messages to named submarines. It contains information regarding:
 - a. Submarines
 - b. Group of submarines
 - c. Transmission Schedule
 - d. Keystream
 - e. Keystream State
- 6.4.2. Messages identified as required for broadcast are configured according to NATO ACP 176 procedures. Messages are then transmitted to one or more submarines at the scheduled time in accordance with the Broadcast Plan Database.
- 6.4.3. The user can interrupt the current transmission if there is a requirement to send high priority messages(s). These messages are classed as Out of Routine (OOR) messages and are preceded with an appropriate warning message (ZUJ ZIA) to gain the attention of any receiving units. The operator should have the ability, whilst monitoring the OTAM, to choose whether to interrupt the current message (immediate) or wait until the

end of this message before sending the OOR (delay). OOR messages are transmitted twice.

6.5. Broadcast Keystreams.

- 6.5.1. A keystream is the channel by which broadcast traffic is transmitted to the submarine. Each keystream has its own Broadcast State (Alfa through to Golf) as follows; Alfa (1 hour 4 runs), Bravo (1 hour 3 runs), Charlie (3 hours 4 runs), Delta (2 hours 3 runs), Echo (4 hours 3 runs), Foxtrot (1 hour 12 runs) and Golf (2 hours 6 runs). The variety of broadcast states provide flexibility to the submarine operating authority during certain operations or exercises. See Table A below for more information regarding broadcast states.
- 6.5.2. The nomenclature of a broadcast is used to identify the type of broadcast (NATO or National), the area it supports, the transmitter channel number and schedule.
- 6.5.3. A broadcast may contain an Administration slot where, when allocated, will transmit from minute 00 to minute 10. If the administration slot is enabled, calculation of broadcast length must also be amended to take into account the reduced time to transmit normal traffic.
- 6.5.4. A broadcast may comprise subslots starting at minute 15, minute 30 or minute 45.
- 6.5.5. Submarines will be identified within the broadcast plan by either their individual name or group address i.e. Address Indicator Group (AIG), Commander Task Group (CTG), Task Group (TG) or Task Force (TF) etc.
- 6.5.6. Multiple Broadcast plans can be created but only one will be active at any one time.
- 6.5.7.

		ALFA	BRAVO	CHARLIE	DELTA	ECHO	FOXTROT	GOLF					
TIME										TIME			
0000Z	A	A	A	A	A	A	A	A		0000Z			
0100Z	B	B	A	A	A	A	A	A		0100Z			
0200Z	C	C					B		A	A			0200Z
0300Z	A	D					A		A	A			0300Z
0400Z	B	A					A		A	A			0400Z
0500Z	C	B	A	A	A	A	A	A		0500Z			
0600Z	A	C					B		A	A			0600Z
0700Z	B	D					A		A	A			0700Z
0800Z	C	A					A		A	A			0800Z
0900Z	A	B	A	A	A	A	A	A		0900Z			
1000Z	B	C	B				A		A			1000Z	
1100Z	C	D	A				A		A			1100Z	
		←-----Number of runs-----→											
		4	3	4	3	3	12	6					

Table A: Transmitter Broadcast States

6.6. Message Handling

- 6.6.1. This signifies the functionalities to manage message handling requirements according to the NATO ACP 126 (modified) format, and NATO ACP 127 Supp-3B format. Profiles will be provided with the authority to configure physical line settings and the management of incoming messages to prepare submarine traffic. Any messages that are incorrectly formatted, unrecognized or containing errors will need to be actioned accordingly. This is currently achieved by the VO and RO profiles.
- 6.6.2. The following paragraphs explain the functions required to be provided by the message handling facilities of the system.
- 6.6.3. **TELEX Circuits:** The message handling facility shall be connected to 4 asynchronous full duplex telegraph circuits

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which can operate using ITA2 code (with 1 or 1.5 stop bits) or ITA5 (10 or 11 bits format). The selectable data rates shall be:

ITA2: 50, 75, 100, 150, 300, 600, 1200, 2400, 4800, 9600 baud / bps

ITA5: 100, 110, 600, 1200, 2400, 4800, 9600, 19200, 38400
baud/bps

- 6.6.4. The BCA will provide a suitable procedure so that the System Administrator will be able to set the code, format and data rate of each circuit.
- 6.6.5. TELEX Lines Throughput: The BCA will handle the following throughput:
 - 6.6.6. Daily average load of 1800 incoming messages of 1500 characters average length and 400 outgoing messages of 500 characters average length.
 - 6.6.7. Busy hour load of 250 incoming messages of 1500 characters average length and 50 outgoing messages of 500 characters average length.
 - 6.6.8. Peak throughput of 250 char/sec in and 50 char/sec out with traffic at this rate continuing for 5 minutes in any one hour.
 - 6.6.9. Incoming Traffic Handling Times: The BCA handling time for a message of FLASH precedence will not exceed 5 seconds for 99% of the messages. For lower precedence messages the BCA handling time will not exceed 5 seconds for 95% of the messages and 10 seconds for 99% of the messages, without higher precedence traffic in progress.
 - 6.6.10. The BCA handling time will be defined as the time between receipt of the "NNNN" end of message indicator and the time at which the message is delivered to the queue for the relevant operator position.
 - 6.6.11. Message Classification: The message handling facility will handle traffic classified up to NATO SECRET, further to that:
 - a. Security recording on individual incoming and outgoing circuits will apply.
 - b. The System Administrator shall be able to set the maximum allowed security for each circuit individually.

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- c. The System Administrator will be alerted both for the reception and for the attempt of transmission of a message with a security classification higher than that set for the circuit and a record will be printed in the system journal.
- 6.6.12. Types of Messages: The BCA will receive and analyse messages and distribute to the appropriate operator. The message handling part of the system will recognise and handle messages in the following formats:
- a. Plaindress
 - b. Abbreviated Plaindress
 - c. Abbreviated Service Messages
 - d. Procedure Messages
 - e. Codress Messages
- 6.6.13. Message Length: Messages up to 12,000 characters in length will be handled automatically and distributed by the software functions of the message handling system. Messages exceeding this length will be sent to the System Administrator for a subsequent decision.
- 6.6.14. Message Analysis and Delivery: Based on the recognition of the type of the message, this will be queued to the appropriate operator position. When the message does not appear to be in one of the ACP formats that can be processed by the BCA, it will be sent to the Radio Operator for subsequent action.
- 6.6.15. All messages handled by the System - either received, delivered by the processor, or generated by the operators - will be identified by an ISN (Internal Serial Number) cycling in the range from 000001 to 999999. This ISN is used in order to identify the messages for retrieval and tracing actions.
- 6.6.16. Each message delivered to the Vetting Officers queue will be recorded in the journal.
- 6.6.17. When the message analyser recognises a message with FLASH precedence, this message will be immediately queued to the relevant operator's position. In this event a warning message will appear on the command area of the Workstation, accompanied by an audible alarm.

- 6.6.18. Encrypted Messages: A address or encrypted message is one in which the complete address part (i.e. originator and all addressees) is contained only within the encrypted text. The recognition procedure for this type of messages will be based on the presence of the prosign GR in format lines 10 and on the absence of format lines from 6 to 9 inclusive.
- 6.6.19. Service Messages: Service Messages, Abbreviated Service Messages (ASM) and Procedure Messages shall be queued to the System Administrator.
- 6.6.20. Message Numbering: Each input circuit will have its own separate message serial numbering.
- 6.6.21. Messages for the Broadcast: Messages intended by the originator for inclusion in a broadcast schedule, will be recognised by the presence of a submarine PLD (Plain Language Designator) as an action (FL7) or info (FL8) addressee and/or following the passing instruction sign T in FL4.

6.7. Broadcast Vetting

- 6.7.1. Broadcast planning will be performed by the BCA software.
- 6.7.2. Broadcast vetting will performed by the Vetting Officer (or assistant). The purpose of vetting is to ensure only messages of interest are delivered to the submarine. The VETT facility will allow the Vetting Officers to direct the compiler function for an allocation of messages for transmission. The BSN (Broadcast Serial Number) and the broadcast run time data will be added by the broadcast compiler except for ADMIN traffic which has no BSN and is not accountable. The Vetting Officers will be able to set the time of the first transmission and the number of transmissions that are to take place.
The Vetting Officers will be able to designate 24 hour Broadcast coverage for any required signal. For VITAL messages, it will be possible to add 50% extra runs.
- 6.7.3. Messages can be terminated from a broadcast before they have had any transmissions or before they have completed their full allocation.
- 6.7.4. If a submarine is moved from one broadcast to another the software must be capable of re-protecting any messages that have not received their full number of transmissions. Re-

protected messages will include the ZEY OPSIG along with the previous broadcast and broadcast serial number for accountability.

- 6.7.5. A vetted-on message in general can be directed to many submarines on different schedules and/or broadcast keystreams. Each submarine (or AIG/TF/TG) can be allocated on many schedules and/or broadcast too.

6.8. Message Retrieval, Tracing, Accounting and Statistics

- 6.8.1. MESSAGE RETRIEVAL: This function allows the retrieval of specific items according to given parameters and in compliance with the profile of the user requiring this service. The retrieval facility includes but is not limited to:
 - a. Data fields and tables (as Submarine and Schedule allocation files);
 - b. Received messages;
 - c. Transmitted messages;
 - d. Vetted on traffic;
 - e. Broadcast keystreams;
 - f. Off-the-air monitor keystreams.
- 6.8.2. Retrieval Time: The retrieval time for a message will not exceed 1 minute for 95% of retrieval operations.
- 6.8.3. Program and Data Retrieval: The retrieval facility will allow the Vetting Officers and the System Administrator to interact with the database used by the system to make corrections and modifications. The same facility will be available for tables and system generated lists.
- 6.8.4. The BCA must provide the facility to retrieve information in order for it to be transferred to pen drive/USB stick for movement between air gapped systems.
- 6.8.5. TRACING: The BCA will store information about the history of all messages either incoming or outgoing keeping a timed record trace. This information will be recorded and retrieved by means of an appropriate command procedure.

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- 6.8.6. The BCA will store traceable items for a minimum of 100 days and a maximum of 365 days.
- 6.8.7. The retrieval and selection of information will be carried out by specifying a set of parameters that identify the message, such as the Internal Serial Number, the Originator Routing Indicator, the Originator Plain Language Designator or the Date Time Group.
- 6.8.8. The analysis performed by the tracing function will report for each message all the transfers to which it has been subject, identifying the operators working on or simply receiving that message. When a message leaves the system, the tracing function will record the time of delivery and the identification of the addressee, and for messages vetted on to the broadcast, information will be supplied indicating in which routines the messages are included.
- 6.8.9. ACCOUNTING: The accounting facility will record (for each operator) the printouts that have been actioned for NATO CONFIDENTIAL and NATO SECRET. The System Administrator will be able to set the security classification level at which this facility will work.
- 6.8.10. STATISTICS: A statistics facility will be provided which will maintain statistics concerning message and broadcast traffic. The following circuits are covered:
 - a. All incoming circuits
 - b. Each individual incoming circuit
 - c. All outgoing circuits
 - d. Each individual outgoing circuit
- 6.8.11. The statistical information stored in each record will include:
 - a. Total number of messages (operational and service) handled
 - b. Number of messages handled at each precedence level.
 - c. Number of messages handled at each security classification level
 - d. Number of service messages handled
 - e. Number of vetted-off messages
- 6.8.12. Stored statistical information for broadcast traffic will include:
 - a. All broadcasts (up 8 broadcasts)

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b. Each individual broadcast

6.8.13. The statistical information stored in each record will include:

- a. Number of individual messages broadcast
- b. Number of messages broadcast at each precedence level
- c. Number of messages broadcast at each security classification level

6.9. Broadcast Composition

6.9.1. Once messages are identified for broadcast they are added to their appropriate broadcast as per the rules of the database to ensure successful transmission to the appropriate submarine on their allocated broadcast schedule.

6.9.2. Once a message is vetted on, the software will provide the operator with information related to:

- a. Count the total characters in the message and its one-line descriptors and calculate the transmission time, according to the transmission format parameters.
- b. Provisionally allocate the message to the required schedules and routines according to the command data fields.
- c. Calculate whether the routines have sufficient free time for the message including reruns and, if successful, insert the provisional one line descriptor, and then update the routine time.
- d. Calculate available time for allocation of new messages.
- e. Provides one line descriptor for Traffic Check List (TCL) message subject description.
- f. Updates message run counts on TCL.

6.9.3. AIGs or group of submarines are handled by the system as if they were submarines copying different NOBs.

6.9.4. Unless a time is specified, each message will be allocated to the next available routines (within a 24 hour time limit).

- 6.9.5. Traffic list: The traffic list (repeated twice) shall lead the actual traffic. It shall include the one line descriptions identifying the messages with a progressive broadcast serial number (from 001 to 999, with BSN 000 reserved for OOR messages) and other information such as the precedence, the classification, the total number of transmissions etc. An example of a Traffic Lists can be found at Table B.
- 6.9.6. The Traffic list will consist of:
- a. A header
 - b. Free Text - amounting to 5 lines with each line containing 69 characters
 - c. A number of one line descriptors including all the messages of the schedule (after prosign ZBO)
 - d. A number of one-line descriptors including messages that have completed their scheduled runs (after prosign ZRR). Such messages will be referenced in next two traffic lists after completion. A number of rows specifying VETTED-ON messages terminated before their scheduled run (ZFJ).
- 6.9.7. Keystream Contents: Each of the radiated broadcast keystreams will start with 10 minutes of Administration Traffic, if admin slots are enabled. The traffic list (repeated twice) will lead the actual traffic. After the traffic list has been transmitted, the messages themselves will be keyed, in the same order described in the traffic list. If the scheduled routine is less than one hour then the broadcast will be repeated until the end of the hour.
- 6.9.8. The sequence of transmission of messages will be determined by considering the following factors, shown in their order of significance:
- a. MOST SIGNIFICANT: Precedence (Highest precedence transmitted first)
 - b. NEXT SIGNIFICANT: Number of runs (Fewest runs transmitted first)
 - c. NEXT SIGNIFICANT: Time of vetting (Earliest vetted time transmitted first)
- 6.9.9. In the case of empty traffic slots a ZBO NIL traffic list will be transmitted twice. Then every 2 minutes the broadcast

designator and the next BSN are transmitted i.e. X31E1C00 001 (where X31E1C00 is the name indicating the current slot being broadcast, and 001 is the next BSN). At minute 15, 30 and 45 the ZBO NIL traffic list will be transmitted (once only).

- 6.9.10. It will be possible to enable / disable administration slots to any broadcast schedule. When enabled the broadcast will commence on the hour with 10 minutes administration traffic. The broadcast will then transmit broadcast traffic from minute 10. If the administration slot is enabled, calculation of broadcast length must also be amended to take into account the reduced time to transmit normal traffic.
- 6.9.11. Administration traffic will be repeated to complete the full 10 minutes available. No run count is given to administration messages and will remain in the admin slot until they are removed.
- 6.9.12. Administration traffic will be transmitted in precedence order.

SECTION 7 HARDWARE FUNCTIONAL DESCRIPTION

7.1. BCA System Security

- 7.1.1. The BCA system will be designed and implemented in accordance with NATO Trusted System Class C2 Controlled Access Protection. The processing system will limit access to authorised users only, will limit facilities and resources to certain users and will make all users individually accountable for their actions through login procedures and auditing/tracing of security related events.

7.2. Built-In Test (BITE) Functions

- 7.2.1. The BCA shall contain a built-in test function to alert the System Administrator of any system failures and the effect of this failure.
- 7.2.2. The level of BITE testing shall be down to replaceable subassembly level.
- 7.2.3. When a fault is detected a warning report shall be given stating the extent of the malfunction and indicating those system functions that are affected.

7.3. System Growth Potential

- 7.3.1. The BCA system will be capable of meeting the requirements of future expansion and adaptation to changing technologies through system expansion and available built in capacity.

7.4. Survivability

- 7.4.1. Survivability of the BCA replacement system should be considered with regards to:
 - a. Physical protection and access controls,
 - b. Replication of functionality and performance capabilities,
 - c. Provision of a high level of availability for full redundancy of major and minor components in order to achieve 99.99% system availability.

7.5. System Availability

- 7.5.1. Through the provision of full redundancy of major and minor components the system should be designed so that system availability is maintained. This is an important factor in ensuring continued communications with safety being a key consideration for this high level of availability. Therefore, the system must be capable of recovering from a failure of a particular component with little to no loss to operations.

- 7.5.2. To ensure the high levels of availability are met, the BCA must be capable of operating from 2 different locations with a geographical distance of up to 50KM between locations. These 2 sites should be connected in order to provide continuous update of the standby equipment to ensure a prompt return to operations in the event of a total failure of the primary location.
- 7.5.3. Data transferred between the 2 sites should be a mirror image of the operational site system; including circuit parameters, profile settings, message logs, system files etc. The aim is to relocate to the standby site and return to operations utilizing the last known good baseline at the defective site³.
- 7.5.4. Connectivity used for data transfer between sites will need to be encrypted.

7.6. Environmental Constraints

- 7.6.1. The following environment constraints should be considered:
 - a. Temperature Range -5°C to +45°C
 - b. Relative Humidity 95% max (non-condensing)
 - c. Shock and Vibration. Bench handling only.

³ The standby site is expected to be at Whitehall, GBR but this is not currently included in the scope of this project.

Table B – Traffic Check List Example

Example:

X31E1A00
ZNY CCCCC
P 061210Z MAR 16
FM COMSUBNATO
TO ALL SUBMARINES COPYING THIS BROADCAST
BT
C L A S S I F I C A T I O N
SIC SVC
BROADCAST STATE BRAVO
DHO APS ICV
ZBO SIX
310 0/1/3 NS (6) HNLMS ZWAARDVIS - EX OPEN GATE CH1
305 0/3/3 NS (1) TG 411.1 - RED 001
307 P/1/3 NC (2) FGS U11 - CASEX A2
303 P/3/5 NR (2) HNLMS ZWAARDVIS - BARNSTORM 023
(VITAL)
308 R/1/3 NC (3) TG 411.1 - SITREP ONE
304 R/3/3 NR (3) FGS U11 - PORT VISIT
ZRR TWO
302 HNLMS ZWAARDVIS - EX OPEN GATE
301 FGS U11 - AIRCRAFT ETA
ZFJ 306 309
BT
NNNN

Table C - Circuits Code Identifiers

The following codes are used on telex circuits (MMHS), keystreams and OTAM circuits.

Ident.	Code	Mode	Bit start	Data	Parity	Bit Stop	Tot. Bits
CODE1	ITA2	Asyn	1	5	None	1	7
CODE2	ITA2	Asyn	1	5	None	1.5	7.5
CODE3	ITA5	Asyn	1	7	Even	1	10
CODE4	ITA5	Asyn	1	7	Even	2	11
CODE5	ITA2	Sync	1	5		1	7
CODE6	64ary	Sync	1	7		1	7
CODE7	ITA5	Sync	1	7	Even	1	10

Circuits Codes/Permitted baud rate: Defines the circuit baud speed that can be set on Telex circuits. Up to six telex circuits may be defined with a data rate of 300 bauds or greater. The following provides a guide to allowed values

Identif.	Code	Speed Rates (bauds)
CODE1	ITA2	50,75,100,150,300,600,1200,2400,4800,9600
CODE2	ITA2	50,75,100,150,300,600,1200,2400,4800,9600
CODE5	ITA2	50,75,100,150,300,600,1200,2400,4800,9600
CODE3	ITA5	100,110,600,1200,2400,4800,9600
CODE4	ITA5	100,110,600,1200,2400,4800,9600
CODE7	ITA5	100,110,600,1200,2400,4800,9600
CODE6	64ary	50,100*,300*

* = Applicable if the current cipher equipment is compatible with this speed.

Circuits Security Classification Codes: Defines the highest security classification level that may be handled by a Telex line. If any message with security classification higher than the one set is sent or received, a warning message is sent to the System Administrator. The following classification levels are used:

CODE	CLASSIFICATION
UU	Unclassified
RR	NATO Restricted
CC	NATO Confidential
SS	NATO Secret

GLOSSARY

ABCA	Alternate BCA
AIG	Address Indicator Group
A&R	Availability and Reliability
ARM	Availability, Reliability and Maintenance
ACP 126	NATO Telegraph protocol
ACP 127	NATO Telegraph protocol
AIFS	Allied Information Flow System
AIMS	Allied Information Messaging System
ASM	Abbreviated Service Message
AVO	Assistant Vetting Officer
Baud	Units of signalling speed
BCA	Broadcast Control Authority
BCS	Broadcast Control Station
BER	Bit Error Rate
BIT	Built In Test
BITE	Built In Test Equipment
BRS	Broadcast Radiating Station
BSS	Broadcast Support System
BSN	Broadcast Serial Number
CCIS	Command and Control Information System
CSN	Commander Submarines NATO, Northwood, GBR
DTG	Date Time Group
DTR	Data Terminal Ready
ECC	Error Correction Code
ECHO	Schedule state
EOTF	End Of Transmission Function
FDX	Full Duplex
FEC	Forward Error Correction

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FL	NATO ACP 127 Format Line
FLASH	Message precedence level
FSK	Frequency Shift Keying
GFE	Government Furnished Equipment
GR	ACP Codress message prosign
HQ MARCOM	Headquarters Maritime Command, Northwood, GBR
HQ MARCOM ALT	Alternate Headquarters Maritime Command, Whitehall, GBR
INT ZID	ACP 127 Operating Signal
ISN	Internal Serial Number
ITA2	Asynchronous serial communications standard
ITA5	Asynchronous serial communications standard
LAN	Local Area Network
MART	Mean Active Repair Time
MMI	Man Machine Interface
MSK	Minimum Shift Keying
MSK2	Two channel Minimum Shift Keying
MSK4	Four channel Minimum Shift Keying
MTBF	Mean Time Between Failures
MTBSF	Mean Time Between Software Failures
MTTR	Mean Time To Repair
MUX	Multiplexer
NGCS	NATO General Communications System
NMHS	NATO Message Handling System
NOB	Nomenclature Of Broadcast
NOR	Number Of Runs
OOR	Out of Routine
OPSIGS	Operating Signal
PLA	Plain Language Address
PLD	Plain Language Designator

N A T O U N C L A S S I F I E D

N A T O U N C L A S S I F I E D

RATT	Radio & Teletype
RF	Radio Frequency
RH	Relative Humidity
RI	Routing Indicator
RO	Radio Operator
RTS	Ready to Send
SBY	Stand-By
SA	System Administrator
SCD	Station Channel Designator
SES	Secure Equipment Station
SIC	Subject Indicator Code
SOTF	Start of Transmission Function
SUBOPAUTH	Submarine Operating Authority
TCP/IP	Transmission Control Protocol/Internet Protocol
TF	Task Force
TFS	Traffic Flow Security
TG	Task Group
TI	Transmission Indicator (SCD+TSN)
TLX	Telex
TOR	Time Of Receipt
TSN	Transmission Serial Number
TU	Task Unit
VLF	Very Low Frequency
VO	Vetting Officer
VOSM	Vetted Off Service Message
WAN	Wide Area Network
XMT	Exempt (ACP 127 prosign)

N A T O U N C L A S S I F I E D

SOW

ANNEX B

SITE INFORMATION DATA PACKAGE

This annex provides details of those sites where the replacement BCA will be installed, a basic site drawing for Northwood and minor technical information regarding the current BCA installation.

BCA Site Locations:

HQ MARCOM / COMSUBNATO Primary

This is the main site of HQ MARCOM. From here Commander Submarines NATO (COMSUBNATO) executes Command and Control of all NATO submarine operations and exercises.

Address:

COMSUBNATO
Atlantic Building
Northwood HQ
Sandy Lane
Northwood
HA3
England

Main POC:

Lt Cdr John Baxter RN
J.baxter@mc.nato.int

COMSUBNATO Alternate

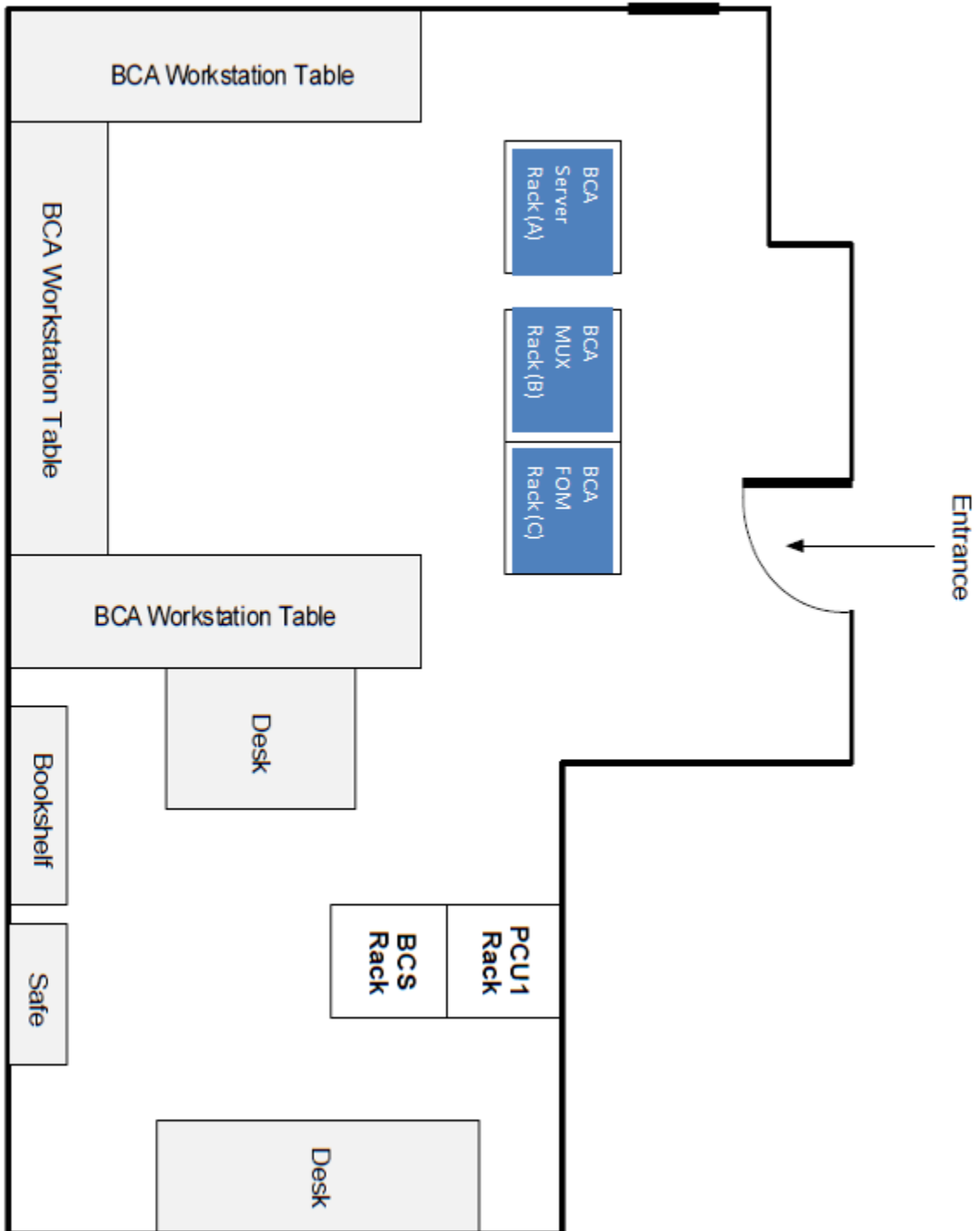
This is the alternate site of COMSUBNATO. Operations would be moved to here in the event of the unavailability of the Northwood site. COMSUBNATO may also exercise the use of the alternate facilities on an occasional basis. The Alternate BCA/BCS is not currently included in this project.

Address:

NATO Radio Room Whitehall
Room 110
ISS Whitehall
Spring Gardens
Whitehall
London
SW1A 2PA

Main POC:

Lt Cdr John Baxter RN
J.baxter@mc.nato.int



COMSUBNORTH BCA / BCS Radio Room

Northwood, GBR

Broadcast Control Authority (BCA)

The current BCA is housed in 3 x 19" racks (Rack A, B & C) which contain the Server (A), Multiplexer (B) and Fibre Optics (C). The BCA server uses a cluster configuration to ensure the continuous availability of the system. The application software is hosted on the server side.

Rack A – Server Rack

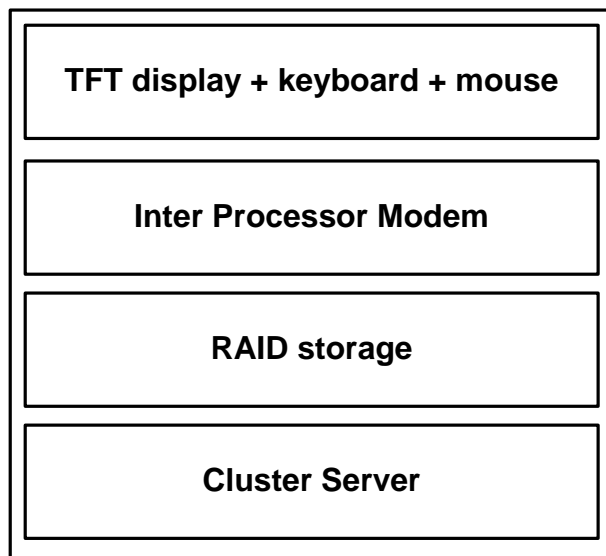
The Server Rack represents the Host of the BCA system and is a server machine with cluster solutions. Storage disks in RAID configuration are the other main aspect of this functional block.

The server, in cluster configuration, allows redundant interconnections, which provide a high level of availability.

The RAID (redundant array of independent disks) is used to provide redundancy within the storage solution and increase MTBF.

Redundant fibre optic LAN is installed between the Server Rack and the Multiplexer to ensure continued communication in the event of a failure of one of these connections.

A functional block diagram of the Server Rack is shown below:



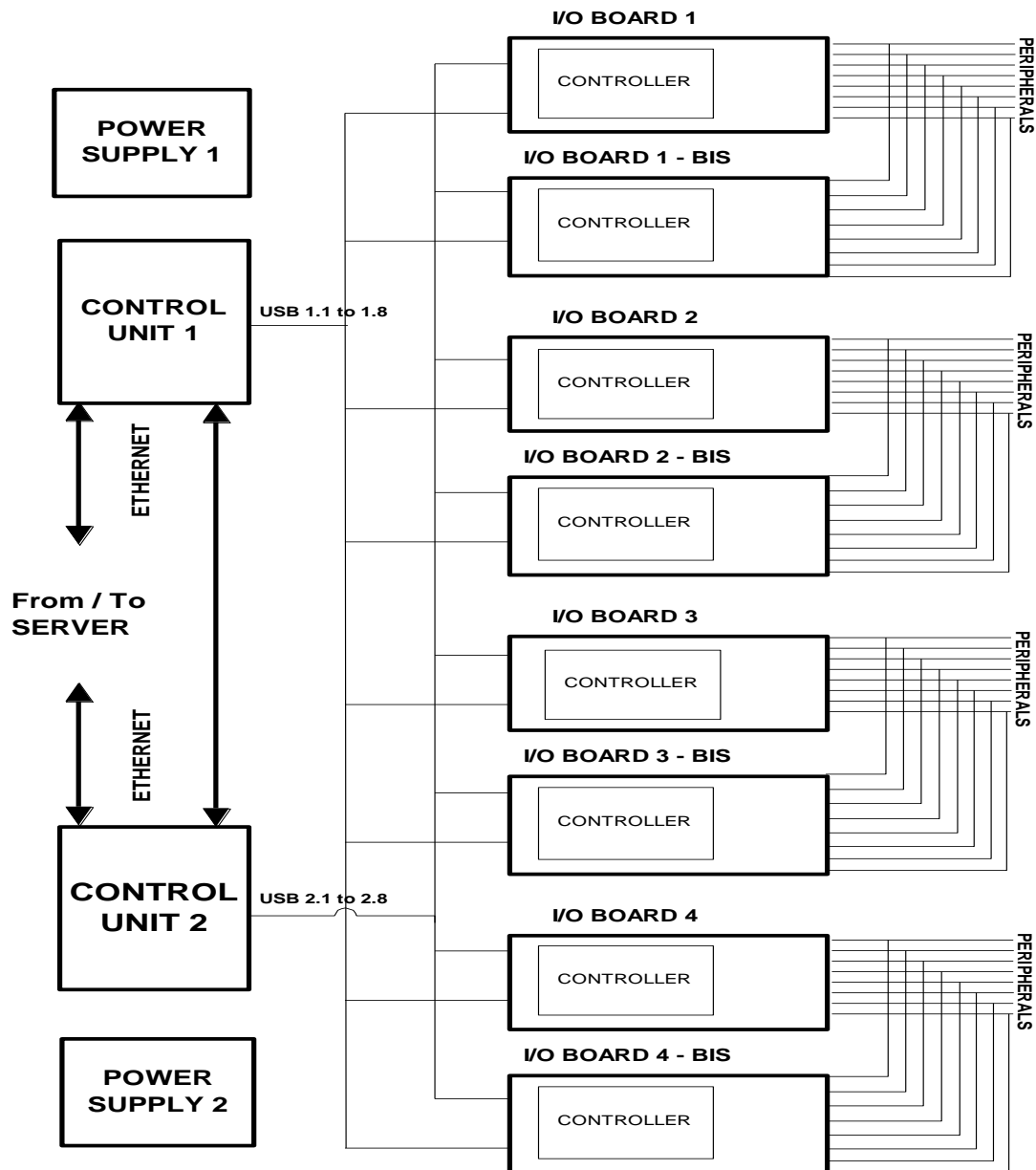
Rack B – Multiplexer Rack

The Multiplexer (MUX) Rack is the interface between the Host and the external devices of the BCA System. It is also the interface for routing messages the Host to the external lines of the system.

As well as the LAN connection from the Server Rack (as described above), the other side provides the electrical connections to the Fiber Optic rack, which in turn provides connection to the Broadcast Control Station.

The Multiplexer unit also has a high level of redundancy built in. It contains a Control Unit (PC), Interface Unit (I/O Boards) and Power Supply block.

A functional block diagram of the Multiplexer Rack is shown below:

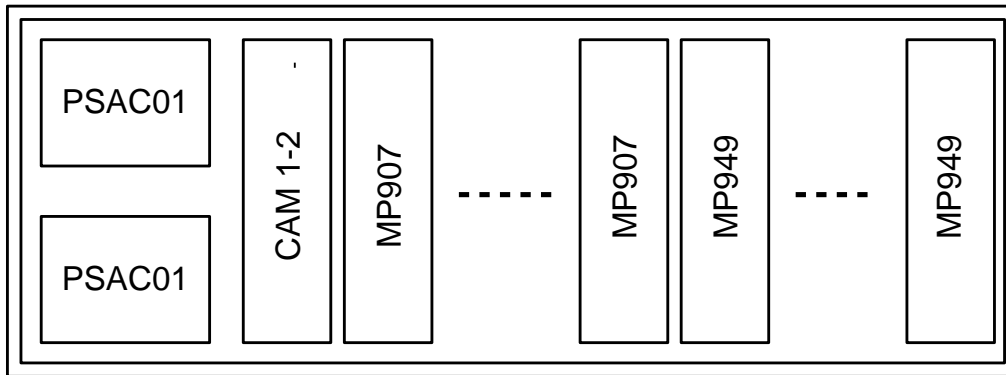


Rack C – Fibre Optic Rack

The third rack is the Fiber Optic (FO) rack. This provides the connection between the BCA system and the crypto devices for encryption of broadcast messages and routes them to the Broadcast Control Station. It should be noted that the crypto devices are outside the scope of this support contract. Fiber Optic conversion is performed by the VERSITRON Versimux multiplexer. Clock, control signals, and data are multiplexed at the transmit end, then passed on to the master multiplexer card. The master card multiplexes the combined signals from all port cards and transmits a master signal to the remote Versimux. At the remote end, the master multiplexer card de-multiplexes the master signal and distributes each combined signal to the appropriate port card. Combined signals are further de-multiplexed at the port card into data, clock and control signals which are applied to the interface.

The FO rack also provides the patching functions for the routing and exchange of keystreams.

A functional block diagram of the Versimux Rack is shown below:



The following diagram shows the overall relationship between the 3 BCA racks:

